The London School of Economics and Political Science

Sustaining International Law:

History, Nature, and the Politics of Global Ordering

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TABLE OF CONTENTS

DECLARATION

I certify that the thesis I have presented for examination for the PhD degree of the London School of Economics and Political Science is solely my own work other than where I have clearly indicated that it is the work of others (in which case the extent of any work carried out jointly by me and any other person is clearly identified in it).

I warrant that this authorisation does not, to the best of my belief, infringe the rights of any third party.

I can confirm that my thesis was copy edited for conventions of language, spelling, and grammar by Ms Christine Beal.

I declare that my thesis consists of 98,626 words.

ABSTRACT

This thesis investigates how the natural environment is conceptualised in international law. Environmental campaigners typically place great faith in the discipline's ability to restrain the onset of growing 'global' problems: such as species extinctions, clearing of forests, pollution, and climate change. Law has traditionally been a key domain for efforts to regulate, and curb, these problems. While a vast body of existing literature assesses the effectiveness and adequacy of these initiatives, this dissertation takes a different approach. It explores particular visions of the natural environment that inform such initiatives. I will proceed from the premise that international law, rather than merely reflecting the natural environment, shapes how we perceive it. With this in mind, I will investigate a selection of stories that international law tells about the natural environment, and consider the different, competing stories it deprivileges. The key question is: what role has international law played in making certain ways of thinking about nature come to seem normal or intuitive, and how does this affect efforts to curb environmental harms?

Adopting historical and philosophical approaches informed by critical approaches to law, I will show how dominant manifestations of nature are articulated—and sustained—with regard to ideas of mastery and resources, national economies and conservation, the (human) environment, sustainable development, the green economy, and natural capital. I will use insights from radical ecological and postcolonial theory to highlight the ramifications of such conceptualisations. My discussion will focus on a series of key episodes in the history of international environmental law, as well as on the work of prominent scholars and institutions in the field of international environmental law.

I will argue that international law is constrained in its efforts to deal with environmental problems insofar as the discipline is itself complicit in the use, abuse, and subjugation of environments. Furthermore, I will contend that the idea of the environment is continually reconstructed and repositioned, in ways that sustain a certain relationship, or form of global ordering. As we shall observe, debates in international fora over the scope and meaning of the environment fostered anxieties about the degree to which it was being adequately protected. Yet, I will suggest, these were neutralised—or co-opted—in ways that reinforced dominant logics. Put simply, international law and institutions have

sustained a narrow understanding—or framing—of the environment. Ultimately, it has confined the outcomes of environmental policies to a set of largely predetermined outcomes. This undermines international law's contingency and potential dynamism. Added to this, is the implication that such framings are designed to preserve the power and privilege of a small minority of the world's peoples.

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Eloise and Christian, I dedicate this thesis to you.

PREFACE

What is the global environment? What are our duties with regard to it? How must we balance those duties with competing priorities, which might include economic growth, development, equality, and human needs? What types of struggles take place in relation to these issues? And where does international law fit in? How does the discipline shape our perceptions of the environment? Whether we recognise it or not, these questions are some the world's most pressing problems. There are few issues—if any—that do not, in one way or another, touch upon these questions. They affect potentially all life on the planet: from the ghostfish that live in the Mariana Trench's deepest reaches, to the mosses growing atop Mount Everest. These problems might also equally be applicable to a range of other perceived crises unfurling around us: financial crises, economic inequality, and perhaps even violent conflicts across the world.

I began thinking about some of these issues many years ago, but never expected to see them expressed as more than a few inchoate notes saved in my computer, let alone in a doctoral thesis. Indeed, this thesis appears 10 years after I left a comfortable private sector job, packed a small suitcase, and booked a one-way flight, in the hope of pursuing a passion for international environmental law and policy. Ultimately, it was a journey that took me around the world. From rural villages in Egypt and China, to Cambodian rainforests, to international conference centres in Turkey, Qatar, and Germany, and to the Korean Demilitarised Zone, I feel privileged to have worked with an extraordinarily talented and committed group of people for whom these questions always remained at the centre of their efforts.

Over these years, I dedicated much of my energies working toward solutions to climate change and deforestation, preventing forced relocations, and helping peoples adapt to changing environmental problems. My colleagues and I achieved some success in these areas, if only to reduce the rate at which they were worsening. However, I eventually came to feel a sense of frustration and indignation from our efforts. I had once seen international law as the solution, a panacea to preventing the planet from warming, cutting down old-growth forests, extinction of rare animals, and reducing plastics in our oceans. By the end of 2013, I held significant doubts about this.

These doubts emerged from a concern that we were forever trying to change problems only at their surface, without sufficiently contemplating the many factors at the heart of those predicaments. Consequently, I often felt that these underlying factors were being sustained, at the expense of implementing a range of more adequate—and readily available—solutions. It led to a desire to interrogate this suspicion, and to pursue, what was at first an intuition. It was around this time that I was given an opportunity to pursue further academic research, possibly in the vain hope that I could find more adequate answers to the problems that I had previously worked to resolve, but had perhaps inadvertently made worse.

This thesis is a modest attempt to explain these issues. It is a project driven by pessimism, yet inspired by a lasting hope. It journeys into the inner sanctum of our international law-making processes and institutions, with a view to shedding light on how historical events have affected the lives of billions. I feel that being a child of the Third World—yet formally educated in the First World—has been an amazingly privileged position from which to observe, and speak to, these events.

I must admit that the process of writing this thesis has raised more questions and uncertainties, than revealing definitive answers. I am deeply grateful to have had this opportunity, whilst working within a dominant culture that glorifies action, and belittles contemplation. This is a culture that makes increasingly aggressive demands for immediate 'action', as if any action—however ineffective or damaging—is preferable to none. Throughout this process, I have been mindful that opportunities like this are rare. With this in mind, I have endeavoured to make the most of this opportunity by seeking out unseen fissures, and sharpening our view of what lies beneath—or beyond—the realms of positive international law, all in an attempt to try to change it. The outcome of this story, we shall see, is to show simply that—laden with historical baggage—our direction of travel is clear. Yet, our destination is not. It is with these insights that I hope my thesis may help equip others to strive for different visions of international law, the environment, and alternative forms of global ordering.

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CHAPTER ONE

INTRODUCTION

'Who shall have control over the story? Who has, who should have, the power not only to tell the stories with which, and within which, we all lived, but also to say in what manner those stories may be told?'

— Salman Rushdie, *Joseph Anton: A Memoir* (2012)[1]

I. Powers of Narrative

In a dramatic sequence of the BBC's debut *Planet Earth II* episode aired in 2016,[2] a marine iguana hatchling sits on a beach on Fernandina Island, one of the volcanic Galapagos Islands off the coast of Ecuador. A snake is poised ominously behind it. Seemingly hoping to elude detection, the iguana stays motionless at first. As it notices the snake moving to strike, however, the iguana flees. All of a sudden, dozens of snakes pour out of cracks in the rocks, and join in chasing the terrified baby iguana across the beach. At one point, the iguana stumbles, allowing time for some snakes to catch and envelop it. Born only a few minutes before, the iguana appears destined to become prey. Seemingly miraculously, however, it wriggles out of the tangled snakes' grasp and hurriedly scampers up a rock face. The iguana then makes one final dramatic leap, past a lunging snake—narrowly through its gaping jaws—to safety.

This story—narrated by Sir David Attenborough—presents the animals as characters: a heroic iguana escaping from its villainous hunters. Despite this framing, the snakes were not motivated by malice. They simply needed to eat to survive. As the episode's producer explained, 'the island has so little food'. Expressing sympathy for their plight, she later clarified that many snakes were 'going hungry most of the time'.[3] By contrast, the marine

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[1] Salman Rushdie, *Joseph Anton: A Memoir* (London: Random House, 2012), p. 360.
[2] Mike Gunton, Tom Hugh-Jones, Justin Anderson, Ed Charles, Fredi Devas, *Planet Earth II* (London: BBC Earth, 2016), Episode 1.
[3] Christine Champagne, 'Here's The Story Behind That Terrifying Iguana Vs. Snakes "Planet Earth II" Scene, *Fast Company* (online), 17 February 2017, available at: <https://www.fastcompany.com/3068093/heres-the-story-behind-that-scary-iguana-vs-snakes-planet-earth-ii-clip> (last accessed on 12 April 2018).

iguanas' lives were comparatively easier because they were not exclusively reliant on food from the island. They were able to feed on seaweed and algae in the ocean. This vignette reveals a broader point. Whereas, every day, some of the world's snakes, iguanas, and a myriad of other animals will survive, many others will not. Power to determine the story lies with the story-teller: what makes it to the screen, what we as audiences see, what we value, what is worth saving, and ultimately how human beings envisage the natural world.

The manner in which we narrate—or frame—the 'natural environment'[4] is a determinant of how we understand it, engage with it, and of what we value within it. In stories about what the 'natural environment' is—or ought to be—it is often envisioned as self-contained, bounded, and explicitly definable.[5] We are typically led toward interventions designed to maintain aspects of the environment in a certain state. With this background in mind, it is perhaps a pertinent question to ask ourselves '*whose* violation and suffering we *highlight* and whose we *ignore*'[6] in the stories we tell—as well as in the languages and discursive logics[7] those stories promulgate—about the environment. In other words, who benefits, who is affected, and on whom is power and privilege bestowed in these stories? These questions—of how international law tells stories about the natural environment, along with how these stories have emerged historically—are, in a nutshell, what I address in this thesis.

These questions have become all the more urgent, given the views of a majority of scientists—who themselves are framers of nature—telling us that humanity is drastically affecting the conditions for life on this planet. The extent to which people, activities, or stories are responsible for these issues remains highly contested. Alarming statistics

[4] In this thesis, I use the terms 'nature' and the 'environment' interchangeably. As we shall see, however, they admittedly emerged at different historical moments and, at least initially, represented different ideas.
[5] See, for example, the legal principles of state responsibility with respect to the environment set out in *Gabčíkovo-Nagymaros Case (Hungary v Slovakia)*, Judgment [1997] ICJ Reports 7, [140]; *Nuclear Tests Examination Request (New Zealand v France)* [1995] ICJ Reports 288, 306; *Lake Lanoux Arbitration (France v Spain)* (1957) 24 ILR 101; *Trail Smelter (United States v Canada) Arbitration* (1938-41) 3 RIAA 1905; *Territorial Jurisdiction of the International Commission on the River Oder* [1929] PCIJ 23.
[6] This phrase is adapted from Upendra Baxi's formulation in relation to human rights. Upendra Baxi, *The Future of Human Rights* (Oxford: Oxford University Press, 3rd ed, 2008), p. xxxviii (emphasis in the original).
[7] I use the term 'logic' in this thesis interchangeably with what Michel Foucault called 'discourse', namely a set of practices that produce knowledge and meaning. See Michel Foucault, *Archaeology of Knowledge and the Discourse on Language* (AM Sheridan Smith trans, New York: Pantheon, 1969), pp. 135-140.

abound about the scale of species extinctions, the destruction of forests, vanishing of coral reefs, melting of glaciers, and the drainage of wetlands, and climate-related disasters.

For instance, we are told that annual global greenhouse gas emissions reached a historic peak in 2017, of 32.5 gigatonnes, an increase of 1.4 per cent from 2016 levels.[8] Mass extinctions also appear to be escalating. More than half of all species are thought to have been eradicated in the last 50 years.[9] The latest *Red List Index* now classifies a quarter of the world's mammals as under 'imminent threat'.[10] Added to this, more than 30 per cent of marine fish populations have now been exploited beyond their rate of replenishment. This represents a dramatic change from a rate of 10 per cent in 1974.[11] Moreover, the world's coral reefs are in such serious decline that they are at threat of disappearing completely before 2050. Amphibious species also face high risks of extinction, with 41 per cent already under threat.[12] The proportion of forested land worldwide fell from 31.6 per cent in 1990 to 30.6 per cent in 2015.[13] Over 60 per cent of an estimated 8 billion tonnes of plastic produced since 1950 has found its way into landfills and oceans.[14]

Many scholars predict that the above trends will continue to worsen. The United Nations reports a three-fold increase in the consumption of natural resources over the last 40 years.[15] By 2050, the world's people will likely consume 80 per cent more natural 'resources' than the ability of the planet's ecological processes to replenish them. On some projections, demand for food may rise by more than 50 per cent,[16] while energy

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[8] International Energy Agency, *Global Energy & CO2 Status Report 2017* (Paris: OECD/IEA, 2018), available at: <https://www.iea.org/publications/freepublications/publication/GECO2017.pdf> (last accessed on 18 April 2018), p. 3.
[9] World Wildlife Fund, *Living Planet Report: Risk and resilience in a new era* (Gland: WWF, 2016), p. 3.
[10] Jean-Christophe Vié, Craig Hilton-Taylor and Simon N Stuart (eds), *Wildlife in a Changing World: An analysis of the 2008 IUCN Red List of Threatened Species* (Gland: IUCN, 2009), pp. 15-41.
[11] Food and Agriculture Organization of the United Nations, *The State of World Fisheries and Aquaculture 2012* (Rome: FAO Fisheries and Aquaculture Department, 2012), p. 11.
[12] United Nations, *The Sustainable Development Goals Report 2017* (New York: UN, 2017), available at: <https://unstats.un.org/sdgs/files/report/2017/TheSustainableDevelopmentGoalsReport2017.pdf> (last accessed on 18 April 2018), p. 49.
[13] Ibid.
[14] 'Don't bin plastic. To solve the polymer problem look East', *The Economist* (online), 1 March 2018, available at: <https://www.economist.com/news/leaders/21737502-eight-out-top-ten-polluters-are-developing-asia-dont-bin-plastic-solve-polymer> (last accessed on 20 April 2018).
[15] United Nations Environment Programme and International Resource Panel, *Assessing Global Resource Use: A Systems Approach to Resource Efficiency and Pollution Reduction* (Nairobi: UNESCO, 2017), available at: <http://www.resourcepanel.org/file/904/download?token=YvoiI2o6> (last accessed on 11 July 2018), p. 28.
[16] Organisation for Economic Co-operation and Development, *Environmental Outlook to 2050* (Paris: OECD, 2012), p. 19.

use may increase by 30 per cent.[17] This would increase greenhouse gas emissions by 50 per cent on today's levels before 2050,[18] and cause temperature rises of between three to six degrees Celsius by 2100. Meanwhile, by 2050, the world is predicted to lose 10 per cent of all its species. Primary forests are expected to shrink in area by 13 per cent. The availability of freshwater may become strained in many regions, with overall demand increasing by 55 per cent over the same period.[19] By that time, approximately two-thirds of the world's people will likely live in areas lacking adequate water supplies.[20] Added to this is the fact that these most vulnerable people have contributed least to the problems we witness, but suffer most from them. In one study, the richest 10 per cent of peoples are estimated to have been responsible for 45 per cent of all emissions between 1998 and 2013. The poorest 50 per cent may have, by contrast, contributed only 13 per cent of emissions during this period.[21]

II. Research Parameters

Clearly, these problems are not exclusively the interest of scientists. They are increasingly becoming the concerns of governments and lawyers, including international lawyers. In a January 2018 report, the World Economic Forum identified that 'environmental challenges' represent six of the top eight risks facing the world today.[22] Given the perceptively 'global' effects of these problems, interventions to address them have risen in prominence to the forefront of international legal and institutional agendas. For example, Antonio Guterres foreshadowed—during his inauguration ceremony as the incoming United Nations Secretary-General in October 2016—that increasing support for

[17] International Energy Agency, *World Energy Outlook 2017* (Paris: IEA, 2017), p. 125.
[18] OECD (2012), p. 22.
[19] Ibid 24.
[20] The Water Resources Group, *Charting Our Water Future* (McKinsey, 2009), p. 15; Robert Bailey, *Growing a Better Future: Food Justice in a Resource-Constrained World* (Oxford: Oxfam, 2011), p. 17.
[21] Thomas Piketty and Lucas Chancel, *Carbon and Inequality: From Kyoto to Paris* (November 2015). *Paris School of Economics Report*, available at <http://piketty.pse.ens.fr/files/ChancelPiketty2015.pdf> (last accessed on 24 May 2017), pp. 9-10. See also, Yinon M Bat-On, Rob Phillips, and Ron Milo, 'The biomass distribution on Earth' (2018) 115(25) *Proceedings of the National Academy of Sciences* 6506, 6509. See also, Damian Carrington, 'Humans just 0.01% of all life but have destroyed 83% of wild mammals – study', *The Guardian* (online), available at: <https://www.theguardian.com/environment/2018/may/21/human-race-just-001-of-all-life-but-has-destroyed-over-80-of-wild-mammals-study?CMP=Share_iOSApp_Other> (last accessed on 19 July 2018).
[22] World Economic Forum, *The Global Risk Report 2017: 12th Edition* (Geneva: WEF, 2017).

tackling environmental problems would be one of three major strategic priorities during his term in office.[23]

This growing environmental consciousness has brought with it a body of legal principles, doctrines, and institutions. These international legal rules have, over time, become increasingly technical and complex. As a result, there is now an immense body of literature on domestic and international laws pertaining to the environment. We might see these works in terms of five main categories. These include, firstly, works that focus on specific single-issue problems: like species extinctions,[24] deforestation,[25] air and water pollution,[26] endangered animals,[27] and climate change.[28] Secondly, there are general treatises that seem to define international environmental law as a specific subdiscipline.[29] These might be regarded as part of a wider phenomenon on the fragmentation of international law. A third category is that of works seeking to consider environmental issues in tandem with other legal regimes, such as trade[30] or human rights.[31] Fourth, are studies on key conceptual issues. These include intergenerational equity,[32] the

[23] Antonio Guterres, *Secretary-General-designate Antonio Guterres' remarks to the General Assembly on taking the oath of office* (Delivered at New York, 12 December 2016) <https://www.un.org/sg/en/content/sg/speeches/2016-12-12/secretary-general-designate-antónio-guterres-oath-office-speech>.
[24] See generally, Simon Lyster, *International Wildlife Law: An Analysis of International Treaties Concerned with the Conservation of Wildlife* (Cambridge: Grotius, 1985).
[25] See generally, Lawrence C Christy, Charles E Di Leva, Jonathan M Lindsay, Patrice Talla Takoukam, *Forest Law and Sustainable Development: Addressing Contemporary Challenges Through Legal Reform* (Washington DC: World Bank, 2007).
[26] See generally, Malgosia Fitzmaurice 'International Responsibility and Liability' in Daniel Bodansky, Jutta Brunnée and Ellen Hey (eds), *The Oxford Handbook of International Environmental Law* (Oxford: Oxford University Press, 2007), pp. 1010-1035; Eyal Benvenisti, *Sharing Transboundary Resources: International Law and Optimal Resource Use* (Cambridge: Cambridge University Press, 2002).
[27] See generally, Rosalind Reeve, *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (London: Earthscan, 2002).
[28] See generally, Daniel Bodansky, Jutta Brunnée, and Lavanya Rajamani, *International Climate Change Law* (Oxford: Oxford University Press, 2017).
[29] See generally, Philippe Sands and Jacqueline Peel, *Principles of International Environmental Law* (Cambridge University Press, 2012); Patricia W Birnie, Alan E Boyle, and Catherine Redgwell, *International Law and the Environment* (3rd ed, Oxford: Oxford University Press, 2009).
[30] See generally, Fiona Macmillan, *WTO and the Environment* (London: Sweet & Maxwell, 2001).
[31] See generally, John H Knox and Ramin Pejan (eds), *The Human Right to a Healthy Environment* (Cambridge: Cambridge University Press, 2018).
[32] See generally, Edith Brown Weiss, *In Fairness to Future Generations*: *International Law, Common Patrimony and Intergenerational Equity* (Tokyo: United Nations University, 1989); Catherine Redgwell, *International Trusts and Environmental Protection* (Manchester: Manchester University Press, 1999).

precautionary principle,[33] common but differentiated responsibilities,[34] and the polluter pays principle.[35]

We might observe a fifth, and final, category in works about specific legal techniques for addressing environmental problems, like litigation,[36] transparency arrangements,[37] and environmental impact assessments.[38] This category is now the preoccupation of much of the recent work in the area, which Philippe Sands and Jacqueline Peel point out is concerned with improving 'implementation and mechanisms for compliance'.[39] The challenge, Sands and Peel observe, is now geared toward integrating these techniques—which include adjudication before international courts and tribunals—into a large body of rules devoted to international economic cooperation. In all, international legal scholarship is typically focused upon the discipline's role in remediating environmental harms.

This work aside, critical legal studies observe these and other contemporary issues from yet a different angle. It begins from the possibility that law is not only part of the solution, but is instead part of the problem. Although highly important, mainstream work does not concern itself with how international law may actually resist our efforts to address these issues, or how law might even operate in ways that accentuate these problems. Put in another way, critical legal scholars bear in mind that, for all its many contributions, international law is enmeshed in the problems it seeks to address. As Susan Marks writes, international law often ignores the brute reality of its complicity in root causes, or 'planned misery'.[40] This compels the need for greater work to understand why, and *how*, international law may prevent policies that could indeed serve us better.

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[33] See generally, David A Freestone and Ellen Hey (eds), *The Precautionary Principle and International Law: The Challenge of Implementation* (The Hague: Kluwer, 1996).
[34] See generally, Lavanya Rajamani, *Differential Treatment in International Environmental Law* (Oxford: Oxford University Press, 2006); Philippe Cullet, *Differential Treatment in International Environmental Law* (London: Ashgate, 2003).
[35] See generally, Organisation for Economic Co-operation and Development, *The Polluter-Pays Principle: OECD Analyses and Recommendations* (Paris: OECD, 1992).
[36] See generally, Ellen Hey, *Reflections on an International Environmental Court* (The Hague: Kluwer, 2000).
[37] See generally, Benjamin J Richardson and Stepan Wood, *Environmental Law for Sustainability: A Reader* (London: Hart, 2006).
[38] See generally, Christopher Wood, *Environmental Impact Assessment: A Comparative Review* (Abingdon: Routledge, 2002).
[39] Philippe Sands and Jacqueline Peel, *Principles of International Environmental Law* (Cambridge: Cambridge University Press, 2012), p. 49.
[40] Susan Marks, 'Human Rights and Root Causes' (2011) 74 *Modern Law Review* 57, 74-77.

By contrast, ignoring international law's role in bringing about the underlying conditions for these problems might simply sustain their proliferation. Law, in other words, may not only be part of the solution. It may indeed be an inextricable part of the problem.[41] It is upon that body of work that this thesis seeks to build. More specifically, perhaps the ways in which the discipline shapes understandings of the concept of nature may also indeed be an inextricable part of our contemporary (environmental) problems. Importantly, if this were indeed the case, international legal instruments might remain in some ways deficient, even if they were operating with, for instance, more widespread regulatory coverage, robust monitoring, and stronger enforcement provisions.

Investigating this possibility requires us to investigate how law contributes to framing aspects of the world. International law—like film-making and scientism—is a form of story-telling. We—international lawyers—produce imaginative patterns and symbols through law to both reflect, and bring to life, particular perceptions of the world. In practice, we use narrative techniques—genres, tropes, modes of argumentation, and forms of emplotment—to craft legal arguments. Our use of such techniques also produces knowledge insofar as they 'suggest, create and legislate meanings'.[42] Legal techniques, in other words, are central means through which meanings are imagined and brought into being. International law is capable of initiating new categories, classifying things and people, determining their relative importance, and organising a respective hierarchy between them. Similarly, one of the discipline's primary functions is to mediate conflicts or disputes—between states, peoples, and other entities—about the control, allocation, and utilisation of things derived from nature. So the stories we tell, or narrate, about the natural environment through international law play vital roles in determining how we respond to global problems.

Working within this context, my thesis builds upon a small body of critically-informed literature on law and the natural environment. Bettina Lange describes this body of scholarship as seeking to critique the foundations of liberal legal theory and some of the

[41] For a seminal exposition of how this operates with regard to human rights, see David Kennedy, 'The International Human Rights Movement: Part of the Problem?' (2001) *European Human Rights Law Review* 245.
[42] Maria Aristodemou, *Law & Literature: Journeys From Her to Eternity* (Oxford: Oxford University Press, 2000), p. 3.

'key instrumentalist and ideological claims of environmental law'.[43] More specifically, a number of scholars have raised tensions around terms such as 'the environment' and 'climate change'. They have sought to respond to the observation that, for all of the disparate directions of mainstream work, a particular commonality is the fact that they tacitly appeal to an idea of nature which they treat as self-evident in the language of nature. In fact, some insightful recent works have illustrated that humanity remains the privileged subject or beneficiary of international law's jurisprudential view towards the natural environment.[44] Unlike in other fields of international law, historical and philosophical studies of the discipline's engagement with the natural environment are rare.[45] Even fewer international legal studies have, to date, sought to account for the historical emergence—or 'genealogy'[46]—of the natural environment as a separate category alienated from humanity.

While we shall return to international law shortly, it is important at this juncture to reflect on what in fact we mean by the term 'nature'. This idea of nature is not a natural phenomenon. It has no independent existence. In view of this, some prominent social and ecological theorists have delved extensively into questions of how we perceive nature. As some have observed, the idea of nature is highly contested. We might regard it as a fluid, essentially contestable concept. As such, it is, Raymond Williams famously wrote, 'perhaps the most complex word' in the English language.[47] Historian William Cronon also observes that the concept of '"nature" is not as natural as it seems'. It is, rather, a 'profoundly human construction' that is 'so entangled with our own values and

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[43] Bettina Lange, 'Foucaultian-inspired discourse analysis: A contribution to critical environmental law scholarship', in Andreas Philippopoulos-Mihalopoulos (ed), *Law and Ecology: New Critical Foundations* (Abingdon: Routledge, 2011), p. 39.

[44] See, for example, Andreas Philippopoulos-Mihalopoulos and Victoria Brooks, 'Introduction' in Andreas Philippopoulos-Mihalopoulos and Victoria Brooks (eds), *Research Methods in Environmental Law: A Handbook* (Cheltenham: Edward Elgar, 2017), pp. xii-xiii. See also, Anna Grear, 'Deconstructing Anthropos: A Critical Legal Reflection on "Anthropocentric" Law and Anthropocene "Humanity"' (2015) 26(3) *Law and Critique* 225; Anna Grear, 'The Vulnerable Living Order: Human Rights and the Environment in a Critical and Philosophical Perspective' (2011) 2(1) *Journal of Human Rights and the Environment* 23.

[45] Notwithstanding this, there are some excellent studies on domestic environmental laws. See, for example, Jedediah Purdy, *After Nature: A Politics for the Anthropocene* (Cambridge: Harvard University Press, 2015); Andreas Philippopoulos-Mihalopoulos (ed), *Law and Ecology: New Critical Foundations* (Abingdon: Routledge, 2011); Sean Coyle and Karen Morrow, *The Philosophical Foundations of Environmental Law: Property, Rights and Nature* (Oxford: Hart, 2004).

[46] See generally, Michel Foucault, 'Nietzsche, Genealogy, History', in Paul Rabinow (ed and trans), *The Foucault Reader* (New York: Pantheon Books, 1984), pp. 76-100.

[47] Raymond Williams, *Keywords: A Vocabulary of Culture and Society* (London: Fourth Estate, 1976), p. 184.

assumptions that the two can never be fully separated'.[48] Emma Maris echoes a similar sentiment in her claim that nature was always 'a human construction, forged for human purposes'.[49]

In addition to this, some recognise that every social practice or event has an impact upon the natural environment. After all, every activity appropriates energy and matter, before emitting these in different forms.[50] As potentially all things impact upon the environment, the environment is, in principle, all-encompassing. 'Every attempt to suture, to fill in exhaustively and to colonise the meaning of Nature', observes geographer Erik Swyngedouw, is 'inherently political', but is 'not recognised as such'.[51] Writing in this vein, some other radical theorists—among them Donna Haraway, Karen Barad, Terry Eagleton, Noel Castree, and David Harvey[52]—have sought to demonstrate nature's contingency by deconstructing oppositions between it and the idea of 'society' (or 'culture'). Haraway, in particular, claims that humans are 'cyborgs', in the sense that we are 'hybrids of machine and organism'.[53] These cyborgs, Katherine Hayles argues, are both 'living beings and narrative constructions'.[54] Loosely aligned with these works is Dipesh Chakrabarty's well-recognised critical account, in which he argues that environmental crises—particularly those emanating from climate change—invite a role for the universal human agent, which he says 'appear to have become one at the level of species'.[55]

Writing in response to Chakrabarty's view, however, Andreas Malm and Alf Hornborg contend that such a universal human subject 'blatantly ignores the realities of different

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[48] William Cronon, *Uncommon Ground: Rethinking the Human Place in Nature* (New York: WW Norton, 1995), p. 25.
[49] Emma Maris, *Rambunctious Garden: Saving Nature in a Post-Wild World* (London: Bloomsbury, 2011).
[50] Andreas Philippopoulos-Mihalopoulos, 'Towards a Critical Environmental Law', in Andreas Philippopoulos-Mihalopoulos (ed), *Law and Ecology: New Critical Foundations* (Abingdon: Routledge, 2011), p. 19.
[51] Erik Swyngedouw, 'Apocalypse Forever' (2010) 27(2-3) *Theory, Culture & Society* 213, 216.
[52] See, for example, Donna J Haraway, *When Species Meet* (Minneapolis: University of Minnesota Press, 2008); Terry Eagleton, *The Idea of Culture* (Oxford: Blackwell, 2000); Noel Castree, *Nature* (Abingdon: Routledge, 2005); David Harvey, *Justice, Nature, and the Geography of Difference* (Malden: Blackwell, 1996).
[53] Donna J Haraway, *Simians, Cyborgs, and Women the Reinvention of Nature* (New York: Routledge, 1991), p. 150.
[54] Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: University of Chicago Press, 1999), p. 114.
[55] Dipesh Chakrabarty, 'The Climate of History: Four Thesis' (2009) 35(2) *Critical Inquiry* 197, 221. See also, Baxi's insightful exploration of how the idea of the 'posthuman' unsettles the boundaries between humanity and nature. Upendra Baxi, *Human Rights in a Posthuman World Critical Essays* (Oxford: Oxford University Press, 2009), Ch. 6.

vulnerability on all scales of human society'.[56] The 'human' is not, in other words, an all-encompassing category. Rather, human vulnerabilities are differentially distributed. Malm and Hornborg's critique highlights exclusions, and the existence of a patterned hierarchy, within humanity. Investigating the transition to fossil fuel-based energy sources in nineteenth-century Britain, they argue that industrialisation was itself 'predicated on highly inequitable global processes'.[57] Investments in steam engines were intended to exploit opportunities provided by 'Afro-American slavery', labour in British factories and mines, in addition to the world's demand for inexpensive cotton cloth.[58]

These hierarchical patterns point toward what Jason Moore calls 'the Capitalocene'. Moore's 2015 book, *Capitalism in the Web of Life*, formulates a theory that focuses on investigating how capitalism perpetuates, and is yet dependent upon, the society-nature dichotomy. In other words, Moore writes that 'capitalism does not *have* an ecological regime; it *is* an ecological regime'.[59] Moore understands this regime as implicated in conceptualising nature as a 'cheap' resource for generating profit, as well as divisions in class, gender, and race. He writes of 'cheap nature' in a dual sense: firstly by making natural resources 'cheap' in price; and secondly, by 'cheapening nature' in the sense of degrading or making it ethico-politically inferior.[60] Focusing on what he calls the four 'cheaps'—energy, food, raw materials, and human life—Moore argues that their exclusion from the idea of (civilised) society stymies attempts to reorganise reality.[61]

Donna Haraway's more recent work also gestures toward the existence of a hierarchical ordering within the category of 'the human'. She claims that it is not the entire human species that is culpable for the state of the world's ecosystems, but 'situated human beings in complicated histories'. For this reason, Haraway has recently expressed concurrence with Moore's contention that the term Capitalocene best captures the effects that the process of 'building wealth' through an unequally-distributed 'exterminationist extraction' has had on the planet.[62] Despite their prolific insights, these scholars have not

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[56] Andreas Malm and Alf Hornborg, 'The geology of mankind? A critique of the Anthropocene narrative' (2014) 1(1) *The Anthropocene Review* 62, 66.
[57] Ibid 63.
[58] Ibid 64.
[59] Jason W Moore, *Capitalism in the Web of Life: Ecology and the Accumulation of Capital* (London: Verso, 2015), p. 158 (emphasis in the original).
[60] Moore (2016), pp. 2-3.
[61] Ibid.
[62] Donna J Haraway, 'Interview with Lauren O'Neill-Butler', *Art Forum* (online), 6 September 2016, available at: http://www.artforum.com/words/id=63147> (last accessed on 5 May 2018).

yet considered the role of law—or specifically international law—in helping to enable particular ideas about nature and society to become global axiomatics.

Nonetheless, there are clear convergences between Haraway, Moore, Malm and Hornborg's broadly postcolonial critiques and accounts told by some critical legal scholars—particularly those inspired by Third World Approaches to International Law ('TWAIL')—which argue that the international legal order was forged by an identifiable and highly selective group of peoples. The term TWAIL broadly denotes a style of engagement—or perhaps, loosely a method—that draws attention to the work of international legal categorisation, and its effects in imperial and post-imperial contexts, with reference to the 'West' as a (defining) category. More specifically, it typically draws attention to the ways in which 'European or Western identity is constituted in opposition to an alterity that it has itself constructed'.[63]

Significantly, for my purposes, this applies not merely to identity in a narrow sense, but also to 'the sets of values of which the West claims to be both exemplar and guardian'. It extends, writes Sundhya Pahuja, 'beyond the West as a geographical entity or 'racial' category to institutions and people grounded in Western structures of knowledge. To this other and his values are attributed characteristics the West both rejects and ostensibly lacks – the other is crucially what the West is *not*'.[64] This self-constitution of Western identity thus tends to form in a 'defining exclusion of certain existent peoples (or things) accorded characteristics ostensibly opposed to that identity'.[65] Elements of the West or non-West that betray this dichotomy are often treated in ways that sustain the characterisation and hierarchy of knowledge that the dichotomy creates.

Working largely within this legal tradition, Shawkat Alam, Sumudu Atapattu, Carmen Gonzalez, and Jona Razzaque's edited collection *International Environmental Law and the Global South*[66] aims to unveil some of the diverse priorities of Third World countries in international environmental law. The book departs from traditional approaches to the

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[63] Eve Darian-Smith and Peter Fitzpatrick, 'Laws of the Postcolonial: An Insistent Introduction', in Eve Darian-Smith and Peter Fitzpatrick, *Laws of the Postcolonial (Law, Meaning and Violence)* (Ann Arbor: University of Michigan Press, 1999), p. 1. See also, Edward W Said, *Orientalism* (New York: Vintage, 1979).
[64] Sundhya Pahuja, *Decolonising International Law: Development, Economic Growth and the Politics of Universality* (Cambridge: Cambridge University Press, 2011), p. 28 (emphasis in the original).
[65] Darian-Smith and Fitzpatrick (1999), p. 1.
[66] Shawkat Alam, Sumudu Atapattu, Carmen G Gonzalez and Jona Razzaque (eds), *International Environmental Law and the Global South* (Cambridge: Cambridge University Press, 2015).

discipline, which treat the environment as a series of isolated issues requiring technical solutions, while disregarding the commonality of their root causes. The book's contributors draw out these manifestations of exclusion in a range of issues from climate change, to food justice, indigenous rights, land grabs, extractive industries, and hazardous pollutants. The authors argue that colonialism and industrialisation by First World countries conferred disproportionate wealth and benefits upon some peoples, while causing the very problems that Third World countries are now being asked to collaborate in addressing. Ignoring this context, the authors contend, tends to re-inscribe global inequalities—felt by vulnerable peoples and countries—under the guise of environmentalism.[67]

Building upon this work, more recent literature by critical legal scholars explores the role of nature in the general discipline of international law, rather than merely the traditional approach of considering environmental issues only within the specialised field of international environmental law. Owing some of its methodological lineage to TWAIL scholarship, these scholars investigate how control of the environment is entwined with questions about the allocation of resources and the problems of poverty, inequality, and underdevelopment. Some inspiring work by international lawyers—such as Karin Mickelson, Andreas Kotsakis, Usha Natarajan, and Stephen Humphreys—have identified this is an issue, they have only studied it in limited ways.

For example, Karin Mickelson is a scholar who engages with the broader histories and ideological contexts of international law. She argues that the discipline is intertwined with legacies of colonialism and natural resource exploitation in Third World states. This has allowed First World states to receive a 'disproportionate share of the benefits of centuries of environmentally unsustainable development', she observes, while affecting Third World peoples, which 'have borne many of its costs'.[68] Andreas Kotsakis takes this historical turn a step further, tracing the emergence of environmental norms relating to biodiversity. In particular, he demonstrates how the idea of biodiversity, in particular, has become transformed into what he calls 'genetic gold'. Kotsakis' central claim is that certain (micro-political) practices explain how international environmental law has lost

[67] Ibid.
[68] Karin Mickelson, 'South, North, International Environmental Law, and International Environmental Lawyers' (2000) 11 *Yearbook of International Environmental Law* 52, 55-60.

the capacity to describe itself, and the ability to exert the normative influence needed to ameliorate environmental problems.[69]

Other scholars argue that international law's treatment of nature is itself a constitutive feature of the discipline. Stephen Humphreys, for instance, draws our attention to the ideological and historical formation of law as an impediment to achieving the necessary scale of climate change mitigation required to avoid catastrophic effects.[70] He contends that the 'peripheral, soft and fundamentally ambiguous constraints of "environmental law" ("sustainable development", the "precautionary principle")' are not primarily designed to prevent, rather to 'secure, nature's continued (sustainable) despoliation in the service of the economy'.[71]

Following this theme, Usha Natarajan and Kishnan Khoday contend that international law's treatment of nature is central to the formation of international law as a discipline. They argue that international law systematically emphasises its 'protective potential', while concealing its own 'destructive role'.[72] They suggest that law's impoverished view of nature is incapable of adequately responding to ecological crises. In making this argument, Natarajan and Khoday explore the cultural emergence of international environmental law, explaining that it has produced an impoverished view of nature that is incapable of adequately responding to ecological crises. Because humanity's relationship with nature has been central to the creation of international law itself, the authors contend, environmental issues should not be confined to specialised regimes such as international environmental law.[73]

I am highly indebted to the novel and enlightening insights offered by these initial exploratory studies. Yet, none of this literature attempts a sustained enquiry—or

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[69] Andreas Kotsakis, 'Change and Subjectivity in International Environmental Law: The Micro-Politics of the Transformation of Biodiversity into Genetic Gold' (2014) 3(1) *Transnational Environmental Law* 127. See also, Andreas Kotsakis, *The biological diversity complex: a history of environmental government* (PhD Thesis, The London School of Economics and Political Science, 2011) <http://etheses.lse.ac.uk/216/1/Kotsakis_The_biological_diversity_complex.pdf>. For a similar argument, see Bettina Lange, 'Foucaultian-inspired discourse analysis: A contribution to critical environmental law scholarship', in Andreas Philippopoulos-Mihalopoulos (ed), *Law and Ecology: New Critical Foundations* (Abingdon: Routledge, 2011).

[70] Stephen Humphreys, 'Climate justice: the claim of the past' (2014) 5 *Journal of Human Rights and the Environment* 134.

[71] Ibid 145.

[72] Usha Natarajan and Kishnan Khoday, 'Locating Nature: Making and Unmaking International Law' (2014) 27 *Leiden Journal of International Law* 573, 574.

[73] Ibid.

explanation—of how some of our contemporary predicaments may have emerged through the way international law frames the idea of nature. More specifically, there has been no scholarship to date that strives to address the gap between the legal and non-legal literatures that I have foreshadowed earlier in this section. The aim of this thesis is to offer this inquiry. It is a more comprehensive addition to the existing body of legal work described in the foregoing.

III. Research Question

In posing the question, '[w]ho shall have control over the story?',[74] Salman Rushdie insinuates that all stories are inevitably told only from particular perspectives. This insight is salient to our understanding of international law. After all, international political actors routinely mount challenges against one another by invoking rules and principles on which they have projected stories that support their individual preferences, while counteracting those of their opponents. Martti Koskenniemi calls this process 'hegemonic contestation'.[75] It is the struggle to make their partial views and idiosyncratic preferences appear universal. These struggles reside at the heart of every international legal doctrine and dispute. In attempting to make arguments appear influential and persuasive, however, lawyers often position their particular stories as unifying theories, or grand historical narratives.[76] Critical legal scholars have long suggested that this phenomenon legitimates particular laws and legal-institutional structures.[77] In light of this background, could it be that international legal rules and the practices of its institutions are continually re-telling a particular story about nature? What if there were also other, different, competing stories at play? How do we explain the fact that certain stories have seemingly become dominant, and universally accepted, while others have become excluded and subjugated?

This thesis sets out to explore those questions. More specifically, it examines how key political actors have sought to deploy international legal thought, techniques, and institutional practices, in order to construct and sustain particular stories—or

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[74] Rushdie (2012), p. 360.
[75] Martti Koskenniemi, *The Politics of International Law* (Oxford: Hart, 2011), p. 3.
[76] See for example, Richard Delgado, 'Storytelling for Oppositionists and Others: A Plea for Narrative' (1989) 87 *Michigan Law Review* 2411; Jerome Bruner, 'The Narrative Construction of Reality' (1991) 18(1) *Critical Inquiry* 1.
[77] See for example, Costas Douzinas, Ronnie Warrington, and Shaun McVeigh, *Postmodern Jurisprudence: The Law of the Text in the Text of the Law* (Abingdon: Routledge, 1991).

knowledge—about the natural environment. I use the verb '*sustain*' in its *Oxford English Dictionary* sense to describe the continuation—or preservation—of a certain state of affairs 'for an extended period', and seemingly 'without interruption'.[78] Similarly, some scholars have described the notion of sustainability as the 'capacity of any given system to exist and reproduce on a long-term basis'.[79] We might regard such a system—or state of affairs—as a particular formation of '*ordering*'. It is a means of establishing a hierarchy of preferences and 'different priorities'.[80] In fundamental terms, Michel Foucault describes this ordering process as enabling entities in the world to be 'arranged', 'divided into classes', and 'grouped'. He argues that this takes place with reference to an 'inner law', which determines the way in which entities 'confront one another' and the hierarchy between them.[81] One particular manifestation of this, using Richard Falk's characterisation, is in 'the distribution of power and authority' among various actors on the 'global stage'.[82] Importantly, this order—and ordering—serves both a political, and a legal, function.

Part of the process of sustaining any individual form of ordering is the obscuration from view—or erasure—of competing arrangements and stories. It is evident from the current literatures that this question of how opposing stories about nature are ostracised, and the modes of their subjugation, have received scant attention thus far. My thesis focuses on highlighting these exclusionary logics and practices in the construction of international law. This work begins from the work of some classical international legal theorists, before moving to explore the questions that I have foreshadowed above in the context of international legal conferences and global summits. Some have described these summits as 'yawning chasm[s] of irrelevance'.[83] Against these views, I prefer to think of such summits as key sites in which exclusion and injustice tend to proliferate.

This investigation has relevance for our understanding of the significance of international law in global affairs at a number of levels. This is because how we conceptualise nature

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[78] 'Sustain', *Oxford English Dictionary* (online), available at: <http://www.oed.com/view/Entry/195209?rskey=74li7e&result=2#eid> (last accessed on 16 June 2018).
[79] Judith C Enders and Moritz Remig, *Theories of Sustainable Development* (Abingdon: Routledge, 2014), p. 156.
[80] Amartya Sen, *The Idea of Justice* (Cambridge: Harvard University Press, 2009), p. 397.
[81] Michel Foucault, *The Order of Things: An Archaeology of the Human Sciences* (Abingdon: Routledge, 1991), p. xxi.
[82] Richard Falk, 'World Orders, Old and New' (1999) 98(624) *Current History* 29, 29.
[83] Anne-Marie Slaughter, 'Transform UN entities from hierarchies into hubs', *Financial Times* (online), 17 September 2018, available at: <https://www.ft.com/content/e236a712-ba51-11e8-8dfd-2f1cbc7ee27c> (last accessed on 18 September 2018).

is inextricably intertwined with such problems as poverty, inequality, climate change, release of harmful pollutants, and species extinctions. The issue's enduring relevance was recognised by the famed evolutionary biologist Thomas Henry Huxley, for example, who considered the question of 'the place which Man occupies in nature' as 'underpinning all others'.[84] As a consequence, this thesis intervenes in a broader conversation that challenges the idea of international law as an unquestionable force for virtue. This is not merely a matter of idle curiosity. In fact, my study arises from a sense of severe doubt about whether the remedial paths to which we have committed ourselves are indeed adequate for resolving a range of pressing problems. If that doubt is well-founded, then what is needed is clearly not to go further along these paths but, rather, to divert from them. In particular, I investigate how governments, and other actors, have marshalled international law for the purposes of reconfiguring—while continuing to preserve—familiar stories about nature. Pursuing this objective, my original contribution to scholarship is to enrich present discussions by bringing a more granular historical focus, as well as a wider-ranging periodisation, than that achieved by other scholars to date.

IV. Argument Overview

Intrinsically, this thesis argues that international law both *sustains*, and is also *sustained* by, particular stories about nature. Its postcolonial genealogy focuses attention on how the differential boundaries of what we tend to think of as nature are hewn by a Euro-American understanding of international law from an infinitely complex, irreducible plurality of possible orderings. In presenting my story through a series of successive episodes in international legal thought and institutional practices, I demonstrate the work that law does to sustain a global order,[85] and to keep its relations of power and production functioning in a particular way.

The focus of my story is deliberately schematic. This is made in an attempt to gain an understanding of how the overarching system—or global order—operates. In the chapters that follow, my thesis aims to offer a glimpse of this forest in the midst of a confusing multitude of trees. In doing so, I present a story in which international legal

[84] Thomas Henry Huxley, *Evidence as to Man's Place in Nature* (Mineola: Dover, 2003), p. 71.
[85] Jason W Moore, *Capitalism in the Web of Life: Ecology and the Accumulation of Capital* (London: Verso, 2015), p. 141.

interventions are unlikely to restrain what we have come to observe as an interrelated set of heightening global crises: increasing environmental degradation, enduring poverty, and expansions in income inequality. This is because these laws are themselves constituted by a particular understanding of nature, which subjects it to continual control, abuse, and transformation at the hands of a minority of the world's peoples, to whose interests the global order accords preference.

In making this claim, I do not argue that such arrangements have remained wholly static or unchangeable. Rather, in my reading, I observe that any changes have unfolded within the context of certain 'systematic constraints and pressures'.[86] To put it simply, at various moments—as we shall see—persistent anxieties about nature's dominant stories, languages, and logics gave rise to oppositional struggles by marginalised groups, peoples, and governments. Yet, I argue that international law has reconfigured itself in ways that sought to systematically contain and ostracise this dissent, while fundamentally retaining a dominant, hegemonic vision of nature. While appearing, in other words, as an open concept in which different understandings of nature are capable of being inscribed, international law's openness remains reliant upon specific visions of nature that do not seriously challenge a reigning orthodoxy.

The outcome is a vision of nature that affirms the perpetual growth of globalised trade and market-friendly, industrialised national economies. This tends to undermine—or set limits upon—the contingency of both law and nature. I argue that this operation of 'false contingency'[87] hinders efforts to relinquish the overwhelming force of historical baggage attached to the idea of nature, and its future possibilities. Therefore, in the following chapters, I offer an attempt to demonstrate a re-reading that is attentive to how international law's vision of nature shapes, and limits, the conditions of political possibility. This reduction has significant social implications. In a practical sense, such a delimitation operates to hinder the process of creating a more pluralistic, conceptually open, and just set of responses to contemporary environmental problems. Perhaps, it is in my story's confrontation between the past and the present that other possibilities—long dispensed with—might be revived, and new alternatives revealed. In its attentiveness to the possibilities and neutralisation of dissent, the analytical and normative impulses of this thesis combine.

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[86] Susan Marks, 'False Contingency' (2009) 62 *Current Legal Problems* 1.
[87] Ibid.

V. Chapter Summary

My argument is organised around a series of key moments. It tracks a historico-philosophical shift in how international law has shaped ideas about nature. In a nutshell, there have been perceptible shifts in the stories that law has told about nature: namely, those about natural resources, conservation, the (human) environment, sustainable development, natural capital, and the green economy. Yet, these are not supersessions of each another. Instead, these stories have successively built upon each other in ways that account for the international legal rules and regimes that we have in the present. In all of the episodes I investigate, there have been clear continuities. Each new configuration, however, has brought with it a different set of optics and reference points. These have, in turn, invoked different anxieties, which have then been domesticated or neutralised in particular ways. Stated alternatively, we shall see continuously shifting meanings and contexts. Yet, these shifts have tended to operate in a manner that has sustained a particular form of global ordering.

I begin this story by investigating how a number of classical international jurists constructed nature as a category distinct from that of what we might call 'civilisation'. With regard to this, I will suggest in Chapter Two that these works and several international legal instruments—written during a long period between 1539 and 1910—imagined the earth's surface as a warehouse of raw material resources. As we shall observe, this legal construction of nature eventually became regarded as fundamental to a 'civilised' (European) identity tied to the consumption of natural resources. I offer some thoughts as to how this construction of nature became encoded into law's characterisation of the nation-state. I further argue that these ideas about nature helped to offer a legal justification for colonising, extracting resources from, and harnessing the labour of non-European peoples and lands. Following this, I demonstrate how these prerogatives gradually led—by the late-nineteenth century—to the development of international legal-institutional innovations aimed at conserving, and managing, natural resource use. Yet, far from destabilising the aforementioned ideas about nature, I argue that the resulting legal instruments sought to further entrench them.

In Chapter Three, I examine how international law governed relations between nature and civilisation during the post-Second World War era. Nature, I argue, became central to

the emergence of what we now call 'the economy'. Following this, the chapter demonstrates how a task of the newly-formed United Nations was to conserve the supply of—and access of First World countries to—key natural resources. With this, international law and its post-war international institutions reproduced a conservationist logic first instituted during the colonial era. As we will see, this logic was, in a sense, 'ratified' in the constitutions of several post-Second World War international institutions. I also examine how this logic spurred the establishment, through international law, of African national wildlife parks and mega-dams as springboards for newly-decolonised nations' claims to greater independence and recognition in global affairs. Simultaneously, my story explains some actors' competing visions and efforts to resist these logics. Yet, it also reveals how others sought to occlude these visions as means to preserve the logics and techniques of natural resource conservation.

Chapter Four offers a portrayal of the 1972 United Nations Conference on the Human Environment ('the Stockholm Conference') as a watershed moment in the emergence of nature protection as a discrete realm, or field, in international law. More than this, however, I will suggest that struggles over the newly-constituted field—called 'the environment'—were resolved in ways that subjected it to interpretation by a narrow range of supposedly developed, techno-scientific referents. My story provides an account of how this sense of the environment was shaped through strategic alliances between a range of state and non-state actors, and also how those political actors sought to collectively pacify—or erase—competing visions. As such, I will engage with the question of how the environment—as a nascent international legal-institutional realm—was subjugated and governed with reference to an idea of the national economy. I will investigate how the Stockholm Conference imagined and ratified the natural environment's position as hierarchically inferior, or subservient, to economic priorities. To that end, my re-description will observe how our understanding of the environment in international law was contained and systematically debilitated at a foundational moment of its own juridification.

In Chapter Five, I engage with the construction of sustainable development as an international legal concept. More specifically, I explore debates and discussions of two international bodies—the World Commission on Environment and Development (known as the 'Brundtland Commission'), as well as the subsequent 1992 Rio Convention—that sought to conceptually meld economic development with heightening environmental

concerns. Rather than radically reconfiguring nature's meaning, I contend that the resulting marriage merely concretised it. Put simply, the logic reframed the environment in a way that made it coterminous with the objective of sustaining the global order. It required all the poor, underdeveloped, non-European, unsustainable societies and natures to progress, or reform—through technological, scientific, and industrial means—for the purpose of contributing toward the task of ensuring nature's 'sustainability'. In this story, sustainable development venerated the techniques and affluent lifestyles of the world's wealthy peoples as universal pathways to salvation. Meanwhile, the concept helped to open new opportunities for global monitoring, enrichment, and control by financiers, industrialists, as well as the techno-scientific experts needed to support those groups of people.

Finally, in Chapter Six, I investigate how the years following the Rio Earth Conference were marked by an expansion of international environmental regulations, while narrowing perceptions toward the environment itself. On one hand, my story recognises that an expansion of actors involved in the codification of laws regulating the environment brought within it a more diverse range of perspectives. Some of these sought to destabilise what were, by now, persistently familiar views toward the environment. The question to which I will turn in this chapter, therefore, is how international laws and institutions absorbed these competing, counter-hegemonic logics. I will explore how the emancipatory potential of this dissensus became co-opted and neutralised, being strategically redeployed into serving modified hegemonic forms. Importantly, these re-established consent in retaining a pre-existing global order, promoting new fields of economic activity and the enlargement of a supposedly self-regulating market. In a simultaneous move, international legal-institutional instruments also transformed the conditions under which many opponents manifested themselves. This both reified particular conceptions of the environment—as perfectly designed to aid the expansion of markets, and for opening new avenues for moving capital—in international law, as well as defusing resistance to them.

In all, while my opening vignette offered a useful focal point, this story is not simply about particular species, or even about particular environmental issues. Rather, it is about international law's effects upon all life on this planet. My account invites us to consider a different type of story about the work international law does in the world, and to reflect on how we understand our role as international lawyers. In offering such a story, my

purpose is not to dictate any particular normative outcome or reconstructive project. By contrast, I merely seek to identify how legal-institutional factors and historical contexts may have foreclosed the contestability of different normative visions. As Friedrich Engels asserted, 'the author does not have to serve the reader on a platter the future historical resolution of the social conflicts which he describes'.[88] Asserting such universal 'solutions' would defeat the diagnostic purpose of my story. By contrast, this thesis endeavours to provide both a 'faithful portrayal of the real conditions', and a critical analysis, to 'instil doubts as to the eternal validity' of the stories we have become accustomed to accept as unchallengeable notions of truth or reality.[89] Pursuing this understanding about our discipline is the necessary first step to bringing any change within it.

My ultimate hope is, in some modest way, to open imaginative spaces in which to reconceptualise international law and the natural environment. As novelist Ben Okri has proposed, every story-teller's 'primary responsibility' is to strive to bear witness to a fuller range of 'what it means to be human'.[90] This responsibility, I would add, extends to what it means to be 'natural'. Following this impulse, my story endeavours to nourish the imaginary matrix of truths we tell about ourselves, open up our mental canvas, and unleash a greater authenticity upon what it means to be one of the many interrelated beings on this planet.

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[88] 'Letter from Friedrich Engels to Minna Kautsky', dated 26 November 1885, in Lee Baxandall (ed), *Marx and Engels on Literature and Art* (Moscow: Progress, 1976), p. 88.
[89] Ibid.
[90] Ben Okri, 'Interview with Stephen Sackur', *BBC Hardtalk* (online), London, 7 January 2016, available at: <https://www.bbc.co.uk/programmes/n3csy4vl> (last accessed on 18 April 2018).

CHAPTER TWO

PATTERNS OF ETERNITY: CIVILISING NATURE, NATURALISING CIVILISATION

'Some See Nature all Ridicule & Deformity […] and Some Scarce see Nature at all. But to the Eyes of the Man of Imagination, Nature is Imagination itself.'

— William Blake, *The Letters of William Blake* (1956)[91]

Introduction

In December 2016, an exhibition—called *Making Nature: How We See Animals*—opened at the Wellcome Collection in London. One of its featured exhibits was a fish collected by Swedish physician and botanist Carl Linnaeus. Dried, pressed, and preserved in a 1758 book, the fish became the definitive example of a species known as 'John Dory'.[92] By classifying the animal based on its physical characteristics, Linnaeus fixed particular meanings upon it. More specifically, with this act of naming, he positioned the fish within a system of biological classification, or *scala naturae* ('natural order'), for all plants, animals, and minerals.[93] Linnaeus located humanity at the peak of this hierarchy. He believed that understanding nature required the organisation and classification of all organisms using this system. This human act of creation, he argued, could bring order to nature's seemingly chaotic complexity.

As with many of his enlightenment contemporaries, Linnaeus' ideas had a profound effect on other disciplines, including law. His classification of peoples, according to physiology and skin colour—with Europaeus Albus (white) at the top, and Afer Niger (black) firmly at the bottom—gave racial hierarchy a basis in anatomy.[94] It merged with the logic of

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[91] William Blake, *The Letters of William Blake* (Geoffrey Keynes ed, New York: MacMillan, 1956), p. 35.
[92] '*Zeus faber*, 1758. Pressed fish specimen collected by Carl Linnaeus', *The Linnaean Society of London*, available at: <https://wellcomecollection.org/sites/default/files/Making%20Nature%20Large%20Print%20GuideWellcome%20Collection%20%28186%20KB%29.pdf> (last accessed on 30 January 2018).
[93] Carl Linnaeus, *Systema Naturae* (Leiden: Johan Willem Groot, 1735), p. 17.
[94] Andrew S Curran, *The Anatomy of Blackness: Science and Slavery in an Age of Enlightenment* (Baltimore: Johns Hopkins University Press, 2011), pp. 53-54.

'civilisation', which became a cornerstone of the colonial project and criterion for regulating differential relations between states.[95] Given these connections, it is perhaps surprising that legal scholars have not afforded more attention to the role of classical international law in ordering nature. In particular, I explore in this chapter how early international legal theorists perceived, and projected ideas upon, nature. Moreover, I also interrogate how these classical jurists constructed the discipline in ways that relied on specific ideas about nature. This relates to my overall thesis by demonstrating how treatment of the natural world under classical international law helped to establish a hierarchy—or order—in which an external nature became subordinate to (civilised) man's interests and desires.

The present chapter's scope—in considering these questions—is deliberately panoramic. It is, however, grounded upon an analysis of particular sources: namely, a selection of works by classical jurists, and influential figures in international legal theory, over a (long) period between 1539 and 1910. Section I revisits a selection of these works in an attempt to disinter international law's role in the discursive formation of an external nature. In this section, I interrogate the manner in which civilisation and nature are mutually-constitutive categories formed through the operation of international law. Following this, the second section identifies a moment in which the stability of these perceptions about nature may have become threatened, if only momentarily. It examines how some competing ideas about nature surfaced through international law, spurred by a heightening awareness of European imperialism's effects—particularly its widespread industrial and technological manipulation of the natural world—in transforming colonial landscapes, particularly on secluded tropical islands. The third, and final, section of this chapter will then investigate how European Powers turned to 'physiocratic' theories as a means to address these anxieties. In it, I examine how these theories inspired early nature protection policies, and treaties, aimed at conserving the supply of those plants and animals deemed useful to humanity.

[95] Antony Anghie, *Imperialism, Sovereignty, and the Making of International Law* (Cambridge: Cambridge University Press, 2004).

I. Civilising the 'State of Nature'

As we have seen, Linnaeus' ordering system classified plants and animals as external to, and independent from, humanity. It treated European peoples, in turn, as superior to other races. This became associated with the colonial project known as the 'standard of civilisation', which had a complex history of its own.[96] With this understanding, the first subsection explores how a certain framing of nature—as a warehouse of exploitable raw materials—became embedded within, and a constituent basis of, the international law through its foundational concept of sovereignty. This leads, in the second subsection, to a focus on how classical jurists sought to subsume an external nature into an international law claiming applicability to all nations, peoples, and species.

1.1. Divide et Impera

The language of 'civilisation' entered the European lexicon as an attribute, and predicate, of the Latin word *civis* (meaning 'citizen'). This citizen—along with the *civitas* (or 'city') in which he resided—was classified as distinct and separate from all that lay beyond his walls. For Cicero, only persons who conformed to 'certain standards' were deemed civilised—fully meriting the status of a citizen—as opposed to animals or barbarians.[97] Writing in the sixteenth and seventeenth centuries, a number of influential European jurists sought to devise a new law of nations that justified, in their own ways, a similar division between civilised peoples and nature. This division was based on the logic of 'commerce'. Influenced by geopolitical factors—including the New World encounter, competition between the European powers, as well as technological innovations in seafaring and warfare[98]—these jurists imbued commerce with a Providential function—one supposedly ordained by God—to distribute nature's gifts among civilised peoples.

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[96] A number of insightful works have summarised the features of the 'standard of civilization'. See, for example, Gerrit Gong, *The Standard of 'Civilization' in International Society* (Oxford: Oxford University Press, 1984), pp. 14-15; Edward Keene, *Beyond the Anarchical Society: Grotius, Colonialism and Order in World Politics* (Cambridge: Cambridge University Press, 2009); Martti Koskenniemi, *The Gentle Civilizer of Nations: The Rise and Fall of International Law 1870-1960* (Cambridge: Cambridge University Press, 2004); Anghie (2004); Georg Schwarzenberger, 'The Standard of Civilisation in International Law', in George Williams Keeton and Georg Schwarzenberger (eds), *Current Legal Problems* (London: Steven & Sons, 1955).

[97] Hannah Arendt, *On Revolution* (New York: Viking Press, 1965), p. 107.

[98] See, for example, Anghie (2006); James Tully, *Public Philosophy in a New Key: Volume 2, Imperialism and Civic Freedom* (Cambridge University Press, 2008), Ch. 7.

One such figure, Francisco de Vitoria (1492-1546), has become a particularly relevant figure in critical histories of international law.[99] His lecture, '*De Indis*'—which he is believed to have delivered at the University of Salamanca between 1537-1539—has been infamously interpreted as offering a justification for the Spanish dispossession of lands, resources, and peoples of the New World.[100] At the time, much of Central and South America, as well as the Caribbean, were under Spanish control. The resulting flows of human labour and mineral resources—particularly gold, silver, cotton—from these distant colonies vastly enriched the Spanish Empire. Vitoria's lecture opened with his assessment that all peoples, including the indigenous Indians, were capable—as humans made in the image of God—of owning property. He considered that the Indians retained such ownership until lawfully dispossessed of such a right.[101] This understanding of what was became known as '*dominium rerum*'—signifying a particular form of private ownership over the use of land—elided other diverse and complex ways in which the Indians may have understood or envisioned nature.[102]

In a section referring to 'natural partnership and communication', Vitoria invoked a universal 'duty to behave hospitably to strangers' under the law of nations. He conjoined this duty with a right to freely 'travel and dwell' in other countries.[103] Importantly, Vitoria thought that seas and rivers were things 'held in common' by both the Indians and strangers. Vitoria explained: 'if travelers are allowed to dig for gold in common land or in rivers or to fish for pearls in the sea or in rivers, the barbarians may not prohibit Spaniards from doing so'.[104] Having established these premises, Vitoria derived a right to engage in trade and commerce from the right to free movement and hospitality. He emphasised that the Spaniards had equal privileges to 'lawfully trade among the

[99] See, for example, Anghie (2004), pp. 13-31.
[100] Francisco de Vitoria, 'On the American Indians' in Anthony Pagden and Jeremy Lawrance (eds), *Francisco de Vitoria: Political Writings* (Cambridge: Cambridge University Press, 1991), Ch. 6. See also, Ileana Porras, 'Appropriating Nature: Commerce, Property, and the Commodification of Nature in the Law of Nations' (2014) 27 *Leiden Journal of International Law* 641.
[101] Vitoria (1991), p. 278.
[102] For an insightful survey of some such American conceptions of human-nature interactions and property, see Thomas M Whitmore and Billy Lee Turner, *Cultivated Landscapes of Middle America on the Eve of Conquest* (Oxford: Oxford University Press, 2001), pp. 41-44. See also, Manuel Jiménez Fonseca, *Civilizing Nature: Revisiting the Imperialist History of International Law 1511-1972* (PhD Thesis, University of Helsinki, 2017), available at: <https://helda.helsinki.fi/bitstream/handle/10138/177965/Civilizi.pdf?sequence=1> (last accessed on 15 November 2017), pp. 85-87.
[103] Ibid.
[104] Ibid 280.

barbarians', who enjoyed an abundance of commodities—specifically, 'gold, silver, or other things'—that the Spaniards could import to offset their 'lack'.[105]

Moreover, Vitoria also conferred upon the Spanish conquerors identical rights—specifically, to exploit the natural world's resources—as those of other strangers, so long as it caused no 'harm and detriment to others'.[106] He also spoke of resources taken from commonly-held rivers as capable of being freely appropriated by their 'first taker'. In all, Vitoria's law of nations envisioned a New World ripe with plentiful resources. He recalled the Christian miracle of abundance in his allusion to 'little fishes of the sea'.[107] With this, Vitoria's legal innovations represented nature as a set of 'things' (or commodities). It portrayed the natural world as property: exchangeable and capable of being traded. Vitoria claimed that any interference with this right to engage in trade and commerce could serve as a valid justification for war.

Vitoria's logic was later echoed in a number of works by prominent European jurists. These jurists, like Vitoria, affirmed a view of nature as a world ripe for ownership and commercial exploitation. One such work, Alberico Gentili's (1552-1608) *De Jure Belli* emphasised that inequality—or unequal distribution of the world's various natural resources—created 'the strongest bond' of human 'friendship'. The 'gifts' of nature had been divinely allocated, in both abundance and scarcity, across the world. Peoples and nations would therefore need to search for, and acquire, those they needed, but lacked, through trade with each other. The 'wonderful' rivers and winds brought together all nations and races 'separated in location'. From this, Gentili derived a natural right to commerce (or reciprocal exchange).[108] Those gifted with plenitude were then duty-bound to engage in commercial relations, to fulfil the needs of those lacking such resources. Gentili deemed that any person seeking to 'take away such privileges' would inflict a 'wound on human society'.[109]

Similarly, the Dutch jurist Hugo Grotius (1583-1645) argued that humanity would remain 'wild and savage' if deprived of the right to commerce. If dutifully observed, however,

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[105] Ibid 279.
[106] Ibid 278.
[107] Ibid 280.
[108] Alberico Gentili, *De Jure Belli Libri Tres* (John C Rolfe trans, Oxford: Clarendon Press, 1933), p. 89
[109] Ibid 88.

commerce might 'sustain and cultivate civilisation'.[110] Grotius deployed this logic in arguing for the Dutch East India Company's right to forcibly seize and plunder a Portuguese carrack, the *Santa Caterina*.[111] In his view, the Portuguese claim to having exclusive use of certain naval transport routes undermined a natural freedom of all to utilise the high seas. Grotius contended these were a 'global common' (or *res communis omnium*), unfettered access to which was of vital importance to trade and commerce. From Grotius' perspective, the idea of the freedom of the seas expressed this fundamental natural law right to travel to, and to engage in trade with, other nations. Those denying, or seeking to interfere with, this law threatened 'the highly prized fellowship in which humanity is united'. Such an action, Grotius argued in *Mare Liberum*, was equivalent—under natural law—to inflicting 'violence to nature herself'.[112] A person could then resist, even by violence, any violation of this fundamental right. Attacking the *Santa Caterina*, Grotius famously concluded, was thus a rational act in defence of divine Providence.

Echoing these views, Emer de Vattel (1714-1767) emphasised that 'mankind stands in need of each other's assistance'. The 'bounteous gifts of nature'—be it corn, cattle, timber or metals—were not discoverable in a single locale, he opined, 'to produce everything necessary for the use of one man'. Trading with foreigners, Vattel wrote, enabled nations to procure these 'things as neither nature nor art can furnish in the country it occupies'.[113] Nations were thus 'obliged to trade together for the common benefit of the human race'.[114] Like Grotius, however, Vattel also precluded nations from asserting 'sole proprietorship' over 'inexhaustible' resources.[115] In his view, only the possibility of exhausting resources triggered rights to exclusive ownership over them.

With these classical works of international legal thought, Vitoria, Gentili, Grotius, and Vattel helped to universalise a vision of an external world that we call nature. The idea of nature became visible to these early architects of international law as a set of 'things' capable of accumulation, exploitation, and trade. To put it more precisely, classical jurists transmogrified nature into a warehouse of inert matter and energy, which was

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[110] Hugo Grotius, *The Rights of War and Peace: Political Thought and the International Order from Grotius to Kant* (Richard Tuck ed, Oxford: Oxford University Press, 2005), p. 448.
[111] Hugo Grotius, *The Free Sea* (Armitage ed, Indianapolis: Liberty Fund, 2006), p. 10.
[112] Hugo Grotius, *Commentary on the Law of Prize and Booty* (Martine Julia van Ittersum ed, Indianapolis: Liberty Fund, 2006), p. 182.
[113] Emer de Vattel, *The Law of Nations; or Principles of the Law of Nature, Applied to the Conduct and Affairs of Nations and Sovereigns* (Philadelphia: T & JW Johnson, 6th ed, 1844), p. 37.
[114] Ibid 40.
[115] Ibid 125.

divisible into property. Thus understood, nature's function was to deliver necessities intended for peoples' discovery and use. It became understood as a domain of utility—what philosopher Vassos Agyrou calls a 'standing reserve of resources'[116]—capable of rational control and deployment to satisfy human desires.

These leading European jurists thus installed an unwavering commitment to the control, harnessing, and intensive exploitation of natural resources as a prerogative of all civilised nations. They validated a thirst for wealth and desires to exploit new lands expressed, for example, in the popular myth of El Dorado: a 'golden king' presiding over a lost city of riches, awaiting plunder by enterprising conquerors.[117] With this, the law of nations separated nature from civilisation, and consolidated the dominance of the latter over the former. Added to this, law installed settings designed to safeguard the supplies of raw materials necessary to develop and sustain European commodity production and accumulation. We are thus able to observe nature's emergence as an important thread in the nascent legal-institutional fabric of imperialism.

1.2. The 'Struggle with Nature'

Following this logic, many jurists considered the boundary between civilisation and nature as a continuum, rather than as a strictly rigid frontier. They identified all legal and social systems as being positioned along a fixed evolutionary trajectory, on which some nations could be classified as civilised, others as 'semi-civilised', and others still as barbaric.[118] An indicator of a civilisation's status—physically and behaviourally—was its 'progressive and cumulative' ability to modify, improve, or utilise, the 'state of nature'. This was, in Thomas Hobbes' famous view, a place of continual conflict, struggle, and fear in which 'the life of man, [was] solitary, poor, nasty, brutish and short'. [119]

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[116] Vassos Argyrou, *The Logic of Environmentalism: Anthropology, Ecology and Postcoloniality* (New York: Berghahn Books, 2005). On the idea of 'legal evolution', see Peter Stein, *Legal Evolution: The Story of an Idea* (Cambridge: Cambridge University Press, 1980), p. 19.

[117] See, for example, Vidiadhar S Naipul, *The Loss of El Dorado: A Colonial History* (New York: Vintage, 2003), p. 4.

[118] See, for example, Anghie (2004). Also, in Oppenheim's opinion, Persia, Siam, China, Korea, and Abyssinia were civilised, but their civilisation had not yet reached a point to enable them to carry out rules of international law. This broadly aligned with Balibar's view of a distinction between the 'superhuman' and the 'subhuman' (ibid 198). As Spivak pointed out, however, European colonisers typically had 'good intentions'. See Gayatri Spivak, *Critique of Postcolonial Reason* (Harvard: Harvard University Press, 1999), p. 371.

[119] Thomas Hobbes, *Leviathan* (A P Martinich and Brian Battiste ed, Revised ed, Peterborough: Broadview, 2010), p. 124.

Hobbes invoked fear and anxiety by imagining nature as a place plagued by incessant warfare, engulfed by biblical floods, and replete with human misery. This nature was a place of 'otherness'—located in the New World 'beyond the law' and outside the boundaries of European nation-states—where 'man confronts other men as a wild animal'.[120] Some sixteenth century Spanish conquerors even referred to these indigenous peoples as *naturales* (or 'children of nature).[121] Put simply, peoples living 'beyond the line' were regarded as savages existing within, and indistinguishable from, the 'state of nature'.[122]

In a famous passage, Vattel outlined—in *The Law of Nations*—the importance of specific governance practices over nature to the identity of nation-states. He regarded 'cultivation of the soil' as an 'obligation imposed upon man by nature'. Peoples who 'disdain[ed] cultivation', and preferred to 'live by plunder', would then 'injure their neighbors and deserve to be exterminated like wild beats of prey'. Vattel considered that such peoples 'roamed over', rather than 'inhabited', the 'vast tracts of land' in which they lived.[123] Improving the Earth by 'cultivation of the soil', Vattel proposed, was 'the most solid fund of riches and commerce'.[124] Importantly, the existence of common land did not allow for this. Those failing to 'enclose and cultivate'[125]—or otherwise exploit—nature that had 'fallen to its share'[126] through settled farming and agricultural techniques—such as nomadic peoples—were then identified as lacking a requisite degree of 'reason' demanded of civilised societies. In Vattel's view, this could justify the establishment of colonies by force—as a first step in the modernist project of controlling nature—if this were 'done within just limits'.[127]

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[120] Carl Schmitt, *The Nomos of the Earth in the International Law of the Jus Publicum Europaeum* (Gary L Ulmen, New York: Telos Press Publishing, 2006), p. 96. During the 1436 Portuguese conquest of the Canary Islands, King Duarte also allegedly referred to the native Canarians as 'nearly wild men', who lived 'like animals'. Quoted in Alexander Lee, *The Ugly Renaissance* (London: Random House, 2014), p. 470.

[121] Ward Stavig, 'Ambiguous Visions' (2000) 80(1) *Hispanic American Historical Review* 77, 88.

[122] This logic was affirmed in the nineteenth century by the United States Supreme Court in *Johnson v. M'Intosh* (1823) 21 US 543, which stated that the laws of 'civilised states' drew a distinction between a 'general society of nations', and the Indians, who 'remain in a state of nature'. Gerry Simpson points out, however, the existence of theoretical disputes about what the state of nature actually entailed. For example, Jean-Jacques Rousseau regarded it as a 'state of equality', with the imposition of law through a social contract representing a degeneration from this notion of Eden. See Gerry J Simpson, *Great Powers and Outlaw States: Unequal Sovereigns in the International Legal Order* (Cambridge, Cambridge University Press, 2004), p. 32.

[123] Vattel, (1844), p. 138.

[124] Ibid 77.

[125] Ibid 78.

[126] Ibid 81.

[127] Ibid 138. It is interesting to note that Grotius similarly classified peoples using the idea of cultivation as a benchmark. He opined that 'God's gifts should not be "cast it into the sea", or "lie useless by [humanity]

With this, Vattel's logic revealed striking similarities with those of other influential classical jurists and philosophers. John Locke, for example, also believed that nature's value derived only from its utility to satisfy 'human needs and ends'.[128] He considered that land 'left wholly to Nature'—without the benefit of 'improvement of Pasturage, Tillage, or Planting'—was merely 'wast' [sic].[129] This logic was also reflected in Adam Smith's claim, in *The Wealth of Nations*, that only 'inferior ranks of people' were limited by the 'scantiness of subsistence'.[130] Following this, Comte de Buffon opined—in his 1778 book *Epochs of Nature*—that European peoples' 'civilised nature' derived from their ability to cultivate new crops, plants, and animals. He juxtaposed these practices to the 'raw' and hostile natures left abandoned by, for instance, the 'savage little nations of America'. Yet, he wrote, '[t]he most contemptible condition of the human species [was] not that of the savage, but that of those nations, a quarter civilized'. In ravaging the land—namely, by 'starv[ing] it without making it fertile, destroy[ing] without building, us[ing] everything up without renewing anything', Buffon told, these peoples 'have always been the real plagues of nature'.[131] In response, Buffon envisioned a utopia in which humanity could judiciously 'modify' the nature 'to the point that suits it'.[132]

Similarly, the definition of human freedom devised by John Stuart Mill was conceived in opposition to nature, being synonymous with 'a high degree of success' in the 'struggle with Nature'.[133] The idea of liberty, to Mill, became predicated upon the extent to which people could exercise control over, or otherwise extricate themselves from, nature's boundaries. In a letter written in 1848, he opined that British colonies were 'hardly to be looked upon as countries'. Instead, they were more akin to 'outlying agricultural or manufacturing estates belonging to a larger community'. These colonies were not properly 'countries with a productive capital of their own', he wrote, but instead simply

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[…] yet to lavish it away'. In Grotius' view, '[i]f there be any waste or barren Land within our Dominions, that also is to be given to Strangers, at their Request, or may be lawfully possessed by them, because whatever remains uncultivated, is not to be esteemed a Property.' Grotius (2005), p. 448.

[128] Vattel (1758), para. 78.

[129] John Locke, *Two Treatises of Government* (Peter Laslett ed, Cambridge: Cambridge University Press, 1988), Vol. 2, Ch. 5, para. 42.

[130] Adam Smith, *The Wealth of Nations* (New York: Bantam, 2002), p. 564.

[131] Georges-Louis Leclerc de Buffon, *Histoire naturelle générale et particulière: Volume 5* (Paris: Imprimerie royale, 1778), quoted in Christophe Bonneuil and Jean-Baptiste Fressoz, *The Shock of the Anthropocene: The Earth, History and Us* (London: Verso, 2016), p. 237.

[132] Ibid 244.

[133] John Stuart Mill, *On Liberty, Utilitarianism, and Other Essays* (Oxford: Oxford University Press, 2015), p. 215.

places where the empire found it 'convenient to carry on the production of sugar, coffee and a few other tropical commodities'.[134]

Other major European thinkers of the era—such Auguste Comte and Charles de Montesquieu—also believed that societies would progress from being at the mercy of natural forces, toward civilised nations freed of these 'external' environmental influences.[135] Montesquieu, in particular, opined in his *Persian Letters* that progress relied upon peoples working together towards common interests. By contrast, he wrote that prehistoric humans—called the 'Troglodytes'—lived unrestrained, according to their 'wild nature'. This led to the breakdown of irrigation systems, which resulted in famine and violent conflict.[136] Therefore, Montesquieu thought that overcoming this wild nature—and compensating for its 'deficiencies'—became a precondition of civilisation. The importance here is on civilised man's need to liberate himself from the whims of a savage nature. 'Primitive societies', anthropologist Edward Hoebel recalled, had to 'retrace the course of social development to become civilized, modern, European so to speak'.[137] One could feel emboldened in this interminable struggle, according to historian Jules Michelet, by the fact that:

> 'Nature remains the same, whereas every day man gains some advantage over her. The Alps have not grown taller, while we have driven a road across the Simplon pass; the waves and winds are no less capricious, but the steamship breaks the waves heedless of the caprice of wind and sea.'[138]

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[134] John Stuart Mill, *Principles of Political Economy* (Cambridge: Harvard College Library, 1848), p. 693, cited in Edward W Said, *Culture and Imperialism* (London: Vintage Books, 1993), p. 59.
[135] Auguste Comte, *The Positive Philosophy of Auguste Comte* (New York: Calvin Blanchard, 1858), p. 440. Comte was writing in staunch opposition to a competing trend, posed by some legal theorists—such as Charles de Montesquieu, in his *The Spirit of the Laws* ('Espirit des loix')—who proposed that 'local physical causes' influenced societies' laws and institutions. Stated in another way, Montesquieu proposed that environmental conditions were major determinants of culture and political organisation. For example, he claimed, peoples living in Northern regions—that is to say, Europeans—had 'few vices, many virtues, and a great share of frankness and sincerity'. By contrast, Montesquieu wrote, those living in the South were 'entirely removed from the verge of morality'. He claimed: 'If it be true that the temper of the mind and the passions of the heart are extremely different in different climates, the laws ought to be in relation both to the variety of those passions and to the variety of those tempers'. Charles de Montesquieu, *The Spirit of the Laws* (Anne M Cohler, Basia C Miller, and Harold S Stone trans and ed, Cambridge: Cambridge University Press, 1989), pp. 188-190.
[136] Charles de Montesquieu, 'Letter 11: Usbek to Mirza, in Ispahan', in Charles de Montesquieu, *Persian Letters: A new translation by Margaret Mauldon* (Oxford: Oxford University Press), pp. 15-18.
[137] Edward Adamson Hoebel, *The Law of Primitive Man* (New York: Anthenuem, 1954), p. 292. Similarly, Karl Marx considered progress as overcoming nature, arguing that '[m]an made himself and was himself only so far as he re-made the world around him'. Marx, p. 73. See also, Montesquieu.
[138] Jules Michelet, *Introduction à l'histoire universelle* (Paris: Hachette, 1831), pp. 5-7, quoted in Christophe Bonneuil and Jean-Baptiste Fressoz, *The Shock of the Anthropocene: The Earth, History and Us* (London: Verso, 2016), p. 49.

Through man's mastery and direction, therefore, nature could be made to acquire some semblance of purpose and order. Until such time that peoples learned to exercise this mastery, they were considered uncivilised, excluded from enjoying sovereignty, and debarred from membership in the 'family of nations'. Instead, such peoples were forcibly resettled—at least, conceptually—into the state of nature. The historian Henry Thomas Buckle captured this sentiment in his *History of Civilization in England*. 'If a river is difficult to navigate, or a country difficult to traverse', he first wrote in 1857, European engineers could 'correct the error, and remedy the evil'. This led to Buckle's claim, more generally, that the 'primary cause' of European superiority over other peoples of the world was 'the encroachment of the mind' upon the 'organic and inorganic forces of nature'. He argued that the 'traces of this glorious and successful struggle' were observable from the fact that the 'most cruel diseases' had entirely disappeared from the 'civilized parts of Europe'. 'Wild beasts and birds of prey' had also been extirpated, Buckle wrote, and were no longer able 'to infest the haunts of civilized men'.[139] Two decades later, in 1871, anthropologist Sir Edward Burnett Tylor put this with immense clarity in his observation that:

> 'Acquaintance with the physical laws of the world, and the accompanying power of adapting nature to man's own ends are, on the whole, lowest among savages, mean among barbarians, and highest among modern educated nations'.[140]

This attitude was also palpable, for example, in the disappointment of British officials that 'immense tracts of forest still remain[ed] untilled' in India years after its colonisation. That untilled land, due to its 'inhabitants thereof not having joined with the rest of Mankind' by consenting to its use, simply 'lie waste'.[141] Viewed from this perspective, the mere existence of wilderness areas and wastelands in the non-European world justified European colonisation. In 1922, Sir Frederick Lugard's 'authoritative justification' of Britain's 'annexation' of its African colonies was grounded on such a rationale:

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[139] Henry T Buckle, *History of Civilization in England*, Vol. 1 (New York: D Appleton and Company, 1878), pp. 153-156.
[140] Edward Burnett Tylor, *Primitive Cultures: Researches Into the Development of Mythology* (London: John Murray, 1871), p. 24.
[141] John Butler, *Travels and Adventures in the Province of Assam* (Delhi, Vivek Publishing Co, 1978), p. 250.

> 'For the civilised nations have at last recognised that while on the one hand the abounding wealth of the tropical regions of the earth must be developed and used for the benefit of mankind, on the other hand an obligation rests on the controlling Powers not only to safeguard the material rights of the natives, but to promote their moral and educational progress.'[142]

Wilderness areas were thus pejoratively framed. These unexplored, unexploited regions were characterised as savage, and obstacles to progress. 'Wilderness was a place one came to only against one's will', William Cronon observes, 'and always in fear and trembling'.[143] Its localised spaces became regarded as places of irrepressible violence and suffering, beyond the beckoning walls of the Occident. Following this logic, 'civilising missions' transformed otherwise wasted spaces—including the abject, uncivilised inhabitants living within them—into 'productive' colonies of European states. Hence, the Euro-American 'scramble' to acquire colonial territories.[144] In the process, imperial powers also appropriated vast mineral reserves—for example, of copper, diamonds, gold, and tin—and land on which to cultivate valuable agricultural monocultures, destined for export to European metropoles. All the while, as work by Eric Wolff and Alfred Crosby has revealed, colonial laws and governance regimes—imposed upon the native peoples—left devastating famines across vast continents.[145]

Yet, regardless of this, the meaning of 'civilisation' was deliberately left ambiguous, at least in part. Martti Koskenniemi claims that this ambiguity had an instrumental function. It allowed the idea of civilisation to become 'a shorthand for the qualities that international lawyers valued in their own societies, playing upon its opposites: the uncivilized, barbarian, and the savage'. This offered a language for legitimating 'attitudes about social difference', as well as for 'constructing one's own identity'. It is what historian Hayden White called an 'ostensive self-definition by negation'.[146] Koskenniemi sees this phenomenon as 'a reflexive action' identifying the practices of others in order

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[142] Frederick J D Lugard, *The Dual Mandate in British Tropical Africa* (Edinburgh, William Blackwood & Sons, 1922), p. 18.
[143] William Cronon, 'The Trouble with Wilderness: or, Getting Back to the Wrong Nature' (1996) 1(1) *Environmental History* 7, 9.
[144] See generally, Matthew Craven, 'Between law and history: the Berlin Conference of 1884-1885 and the logic of free trade' (2015) 3(1) *London Review of International Law* 31, 44.
[145] For work into how resource use by and socio-economic subordination of indigenous peoples went hand in hand during the history of colonialism, see Eric Wolf, *Europe and the People Without History* (Berkeley: University of California Press, 2010); Alfred W Crosby, *Ecological Imperialism: The Biological Expansion of Europe* (Cambridge: Cambridge University Press, 1986).
[146] Hayden White, *Tropics of Discourse: Essays in Cultural Criticism* (1978), pp. 151-152.

to affirm that 'whatever we as Europeans are, at least we are not like that'.[147] More recently, Peter Fitzpatrick has described this phenomenon in terms of what he calls a 'negative universal reference'.[148]

Building upon these insights, we have seen how it was through a negative teleology—the rejection of savagery and animality—that a stable civilised identity was produced, and sustained, as a universal subject. It classified, and unified, itself in opposition to a static and unchanging state of nature. Consequently, nature offered a coruscating focal point. For instance, Giambattista Vico regarded civilised peoples as those who created and guarded these 'confines' to halt the 'infinite porosity of things in the bestial state'.[149] Nature's fixed meaning became a 'constitutive outside'[150] against which the civilised mind could define and unify itself. This, clearly, served the goals of European colonisation. The disentanglement of nature from civilisation, and their mutually-constitutive relationship, was a pivotal strategy by which all species—and (modern) global relations more broadly—could become classified and ordered along the lines of race and class. When transmitted through international legal techniques, it defended a particular ethnocentrism under the discipline's cover.

The logic merged with Antony Anghie's understanding of a 'dynamic of cultural difference'.[151] This embedded a civilisational logic relying on competition for territory, wealth, and resources—thought of as being 'there for the taking'—that others sought to replicate, in their attempts to 'sift out the savage from within'.[152] Through the work of international legal scholars, nature was transformed from an infinitely complex set of interdependent relationships into a substrate of civilisation's identity. These radical transformations displaced indigenous peoples' 'regime of nature' with a nascent one,

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[147] Martti Koskenniemi, *The Gentle Civilizer of Nations: The Rise and Fall of International Law 1870–1960* (2002), p. 103.
[148] Peter Fitzpatrick, 'Taking place: Westphalia and the poetics of law' (2014) 2(1) *London Review of International Law* 155, 162. See also, Peter Fitzpatrick, 'Foucault's Other Law' in Ben Golder (ed), *Re-reading Foucault: Law, Power, Rights* (Routledge: Abingdon, 2013), p. 48.
[149] Giambattista Vico, *The New Science* (Thomas G Bergin and Max H Fisch trans, Ithaca: Cornell University Press, 1968), p. 101.
[150] In this idea, the apparent 'outside' or other is constitutive of—and thus internal to—what appears to be 'inside' the field of meaning or community. See Henry Staten, *Wittgenstein and Derrida* (Lincoln: University of Nebraska Press, 1986), p. 24. See also, Chantal Mouffe, *The Return of the Political* (London: Verso, 2005), pp. 114, 121; Judith Butler, *Bodies that Matter: On the Discursive Limits of 'Sex'* (Routledge: New York, 1993), p. 237.
[151] Anghie (2006), pp. 269-270.
[152] Jennifer Beard, *Political Economy of Desire: International Law, Development and the Nation State* (Abingdon: Routledge, 2007), p. 11. See also, Stephen G Bunker and Paul S Ciccantell, *Globalization and the Race for Resources* (John Hopkins UP, 2005).

predicated on dominance, mastery, utilisation, and exploitation. Great swathes of previously indigenous land was opened to European settlers and their environmental practices. In all, I have suggested in this section, international legal theorists inscribed the practices of managing, producing, and delivering nature as a core function of the modern, territorially-defined nation-state. Conceived as such, this idea of nature became a foundational logic of sovereignty itself. Subsequently, nature's dissociation from, and re-entanglement with, civilisation became embedded into the disciplinary heart of international law. Ultimately, it made nature seminal to the emergence of international law, just as international law was an instrument for reproducing (and sustaining) the logic of external nature itself.

II. Witnessing Eden's Contradictions

So, as we have seen, nature had a pivotal role in the formation of identity under classical international law. Transformation of the natural world became a criterion of 'civilisation' and recognition of statehood under international law. The law of nations compelled the application of human 'reason' to nature, as expressed in the need to use land 'productively'. Within this logic, the physical world remained largely 'passive'. Its externality and subjugated positioning made it an object of sustained exploitation, rather than an object of regulation—or worthy of protection—in its own right. Moving from this, the present section highlights a contradiction. It examines how opposing European tensions—between a desire for progressively more industrialisation, modernity, and civilisation, and competing desires to rediscover natural paradises—resonate with the emergence of the natural world as an object of international legal protection in its own right.

European acquisition of 'new lands' became indispensable safety-values for domestic 'social problems'.[153] For instance, the British Empire—arguably the most prosperous European power during the late-colonial era—relied upon copper from the Andes and Congolese forests for electricity transmission. The British appetite also demanded Malaysian tin ore and palm oils for food processing, as well as rubber for mechanical parts and motor vehicles. Demand for Peruvian guano and Tunisian phosphates were also

[153] In Cecil Rhodes' view, 'if you want to avoid civil war, you must become imperialists'. John Strachey, *The End of Empire* (London: Gollancz, 1959), p. 146.

needed to maintain the soil fertility necessary to feed British populations at low cost.[154] Linnaeus' taxonomical system—which made the identification and classification of foreign substitutes for key crops and commodities possible—helped make British resource inventories more self-sufficient.[155]

Nonetheless, the rapacious extraction and use of resources led to alternative problems. In some colonies, for instance, threats of relapsing into the state of nature remained ever-present. To that end, colonist William Bradford recounted how New World settlers perceived themselves as having to reform their new environments from 'a hideous and desolate wilderness full of wild beasts and wild men' into productive labour and capital.[156] Timothy Dwight also wrote of the fears—held by civilised peoples living on the frontier—that they would gradually lose their civilised characteristics, because 'their course of life seduce[d] them to prodigality [and] thoughtlessness of future wants'.[157] In recalling his journeys through the United States in the early-nineteenth century, Edward Kendall also recalled that many settlers degenerated into savages, wandering through the forests and neglecting the 'wealth of nature'.[158]

Their sentiments coincided with wider European anxieties about the trajectory of civilised societies. Some European peoples were becoming acutely aware of how the logic of extraction was affecting natural spaces and landscapes across the world. Arguably, in European minds, the rapid desolation of seemingly pristine landscapes—through human activities—appeared to threaten Europeans' self-professed superiority over nature. These transformations conjured, in many minds, Judeo-Christian images of a declensionist fall from Eden: a state of purity and innocence existing at the world's beginning, followed by an inexorable drive toward catastrophe.[159] In this story, the world before Adam's sin was thought to be a perfectly static order, established through God's

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[154] John Bellamy Foster and Brett Clark, 'Ecological Imperialism and the Global Metabolic Rift: Unequal Exchange and the Guano/Nitrates Trade' (2009) 50 *International Journal of Comparative Sociology* 311. See also, John Tully, 'A Victorian Ecological Disaster: Imperialism, the Telegraph, and Gutta-Percha' (2009) 20(4) *Journal of World History* 559.
[155] Fredrik Albritton Jonsson, 'Rival Ecologies of Global Commerce: Adam Smith and the Natural Historians' (2010) *American Historical Review* 1342, 1347.
[156] William Bradford, *Of Plimoth Plantation* (Boston: Wright and Potter, 1901), p. 495.
[157] Timothy Dwight, *Travels in New England and New York* (Cambridge: Harvard University Press, 1969), pp. 160-161.
[158] Edward Kendall, *Travels Through the Northern Parts of the United States in the Year 1807 and 1808* (New York: Riley, 1809), pp. 75-76.
[159] Carolyn Merchant, *Reinventing Eden: The Fate of Nature in Western Culture* (London: Routledge, 2003), pp. 16-18.

act of creation. It was a peaceful garden of abundance, where man and nature lived in harmonious coexistence. However, the act of sin upset this completeness and perfection. Order was lost. Nature became hostile to man, whose priority then became that of forcefully dominating nature to ensure his survival. It was only through this wilful determination to subdue nature that man could re-establish the original order that he possessed before the fall, and recover his privileged position in the world.[160]

These perceptions gave rise to the emergence of powerful counter-movements. Importantly, these challenges emanated from within European polities. They reflected views held by certain prominent European thinkers, rather than those of uncivilised native peoples, who were summarily dismissed as savage or otherwise inferior. Finding support in works such as English poet John Milton's *Paradise Lost*,[161] such anxieties spawned more romantic (or, what Donald Worster calls 'Arcadian')[162] desires to reclaim, or rediscover, paradise. Fundamentally, the imagery of unspoiled tropical paradises as symbolic locations for the biblical Garden of Eden captured these idealised European aspirations.[163] It offered possibilities for redemption by rediscovering the mythical Garden of Eden. By the end of the seventeenth century, therefore, wilderness areas were becoming perceived—at least in some quarters—as sublime places where man could potentially encounter the divine.

Dante Aligheri's *Purgatorio* located one such 'earthly paradise' on an 'island in the Southern Ocean' or Atlantic.[164] These Judeo-Christian myths about Eden's existence—

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[160] Eleonora Montuschi, 'Order of man, order of nature: Francis Bacon's idea of a "dominion" over nature' (Discussion Paper, Centre for Philosophy of Natural and Social Science, London School of Economics and Political Science, 2010), available at: <https://iris.unive.it/retrieve/handle/10278/24867/23441/MontuschiBacon.pdf> (last accessed on 6 November 2017), pp. 7-8.

[161] John Milton, *Paradise Lost: A Poem* (London: Peter Parker, 1667).

[162] Donald Worster, *Nature's Economy: A History of Ecological Ideas* (Cambridge: Cambridge University Press, 2nd ed, 1994), Ch. 1.

[163] Ross (2017), p. 241.

[164] John Prest, *The Gardens of Eden: The botanic garden and the re-creation of Paradise* (New Haven, Yale University Press, 1981), p. 35. Dante witnessed, in his lifetime, rapid shifts in weather—what some historians have called 'the Little Ice Age'—across Europe. It was likely no coincidence that Dante's *Inferno* spoke of gluttonous sinners being sent to the Third Circle of Hell, where they were punished by 'cold, unending, heavy, and accursed rain', hail, and snow. Dante also referred to a 'stink' (in Canto VI), possibly caused by the resulting harvest failures, famines, and death. Accordingly, the Little Ice Age—particularly, its coldest phase during the mid-1500s to mid-1600s—coincided with the tremendous expansion of trade and European empires. Its driving impetus was that of supplying food to cities and armies ravaged by bitterly cold winters and droughts, harvest failures, and famines. Yet, it was also potentially inspired by desires to discover more temperate regions, places resembling Dante's Garden of Eden positioned atop the mountain of Purgatory. See Dante Alighieri, *Divine Comedy: The Inferno* (John Aitkin Carlyle trans, London: Chapman and Hall, 1849).

as a physical site, awaiting discovery beyond European civilisation's control or dominion—may have inspired, at least in part, Christopher Columbus' transatlantic voyages. Arriving on the island of Trinidad, for example, Columbus wrote that he had reached the 'outer approaches of the Garden of Eden'.[165] Driven by this imagery, he reportedly warned—according to his son Ferdinand—about the dangers of clearing forests on this, and other West Indian islands, drawing particular attention to their effects in reducing rainfall.[166] Following this, a distinct understanding of external nature emerged. It was of nature as a sublime, accessible portion of divinity, in an otherwise fallen world. Idealised portraits of 'noble savages' living in the colonial peripheries[167]—uncorrupted by civilisation's destructive forces—reinforced these views. European peoples—engaged in devastating wars of conquest and religion—may have been amenable to the type of 'romantic primitivism'[168] inspired by these noble savages.

By the late-eighteenth Century, European colonisers were witnessing industrialisation's transformative effects on a large scale. Many colonisers shared anxieties about the rapid destructive changes unleashed by imperial conquest and trade in distant locales. The intrinsic fear was of an Eden corrupted by human activity, especially from large-scale industrial crop plantations on tropical island colonies.[169] Recovering lost paradises appeared, after all, incompatible with continually exploiting colonised territories and resources. The colonies—particularly those located on tropical islands—served as symbolic Edenic reflections. Yet, they were also where European botanists and scientists recognised most acutely the rapacious onslaught of colonial logic, enthroned by law, in transfiguring vast wilderness into desolate wastelands. For example, Richard Grove details how eighteenth-century island colonies—particularly those of the (Dutch) Cape Colony, (British) St Helena and St Vincent, (French) Mauritius, and the (British) Eastern Caribbean—gave insights into the effects of European colonists' activities on the natural world. In these colonies, Grove argues, Europeans realised for the first time the

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[165] Naipul (2003), p. 5. For an earlier discussion of this issue, see what Ernst Bloch calls 'geographical utopias'. Ernst Bloch, *The Principle of Hope* (Neville Plaice, Stephen Plaice and Paul Knight trans, Oxford: Oxford University Press, 1986).
[166] Kenneth Thompson, 'Forests and climatic change in America: some early views' (1983) 3 *Climatic Change* 47. Columbus was also said to have been heavily influenced by Greek philosopher Theophrastus' early attempts at biological classification in his *Historia Planatarum*, which was published in Latin in 1483. See also, Richard H Grove, *Ecology, Climate and Empire: Colonialism and Global Environmental History, 1400-194*0 (Cambridge: White Horse Press, 1997), p. 46.
[167] See generally, Ter Ellingson, *The Myth of the Noble Savage* (Berkeley, University of California Press, 2001), pp. 36-41.
[168] Ibid 37.
[169] Ross (2017), p. 241.

destructive effects of their interventions on fragile ecosystems. Such understanding, Grove demonstrates, also led to early European concerns about the longevity of their resource-use patterns.[170]

In another instance, while travelling through the Aru Islands in 1857—in what is now Indonesia—the celebrated naturalist explorer Alfred Russel Wallace captured a live King Bird of Paradise (*Paradisea regia*). Immediately overjoyed at this achievement, he later recounted—in his book *The Malay Archipelago*—that this 'perfect little organism' needed 'the poetic faculty fully to express them'. However, this feeling soon gave way to doubts, even apprehension. 'It seems sad', Wallace wrote, that 'such exquisite creatures should live out their lives and exhibit their charms only in these wild inhospitable regions', which were 'doomed for ages yet to come to hopeless barbarism'.[171] Yet, in recognition of the destructive effects of colonialism, he wrote:

> 'should civilised man ever reach these distant lands, and bring moral, intellectual, and physical light into the recesses of these virgin forests, we may be sure that he will so disturb the nicely-balanced relations of organic and inorganic nature to cause the disappearance, and finally the extinction, of these very beings whose wonderful structure and beauty he alone is fitted to appreciate and enjoy.'[172]

George Perkins Marsh also recognised the effects of rapid ecological changes, wrought by industrial settlements, as imminent threats to the internal stability and prosperity of sovereign states more generally. Marsh observed, in 1864, that '[t]he Earth [was] fast becoming an unfit home for its noblest inhabitant'. He, and others, recognised that industrialisation endangered the continued existence of established political-economic entities—such as commercial and military institutions—by disrupting supplies to essential raw materials sourced from nature. The consequence, said Marsh, was 'another era of equal human crime and human improvidence', which would reduce civilised

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[170] See, for example, Richard H Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens, and the Origins of Environmentalism, 1600-1860* (Cambridge: Cambridge University Press, 1995), pp. 84-85. Marshall Sahlins also details how island colonies became central to new European theories of ecological philosophy and governance. Marshall Sahlins, *Islands of History* (Chicago: University of Chicago Press, 1987), p. 72.
[171] Alfred Russel Wallace, *The Malay Archipelago: The Land of the Orang-utan, and the Bird of Paradise: A Narrative of Travel, with Studies of Man and Nature* (New York: Harper, 1869), pp. 448-449.
[172] Ibid.

societies to a 'condition of impoverished productiveness, of shattered surface, of climatic excess'.[173]

In a similar vein, Joseph Fourier observed that 'climatic disorders' were vices 'inherent to civilized culture'. Nonetheless, he was cognisant that attempts to dispense with mercantilism and individualism—traits he enjoined with the idea of civilisation itself—were condemned to failure. It was 'completely ridiculous', Fourier observed, to change industrial civilisation's 'devastating nature' or 'stifle its rapacious spirit'. He claimed that any such attempt 'might as well decree that tigers should become docile and turn away from blood'.[174] Industrialism was incapable, Fourier lamented, of sustaining itself in any alternate way than through the rapacious extraction of natural resources. Elaborating upon this theme, Max Weber later noted that modernity's rapacious demand for natural resources was akin to an 'iron cage' that prefigured 'with an irresistible force the style of life of all individuals'.[175] He believed that new methods were needed to ensure the longevity of modern industries, and to improving civilisation.

As an example, Grove's wide-ranging study of environmental history in European colonial empires between 1400 to 1940 reveals that the Venetian Empire's failure to sustainably replenish its timber supplies contributed, by the late-eighteenth century, to its decline. More specifically, resource shortages led to Venice's 'trading and military displacement' by other European maritime powers that enjoyed 'easier access to relatively undepleted forests'.[176] Grove identifies deforestation, too, as a primary cause of devastating Indian famines in 1838 and 1839. These sparked severe social instabilities, leading to insurrections against British colonisers, who were keen not to repeat its underlying causes.[177] Threatened by the 'spectre of famine' and 'gross agrarian failure',[178] European states created legal regimes and institutions aimed at protecting the

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[173] George Perkins Marsh, *Man and nature; or, Physical geography as modified by human action* (New York: Charles Scribner, 1864), pp. 42-43.
[174] Joseph Fourier, '*Détérioration matérielle de la planète*', quoted in Christophe Bonneuil and Jean-Baptiste Fressoz, *The Shock of the Anthropocene: The Earth, History and Us* (London: Verso, 2016), p. 339.
[175] Max Weber, 'The Protestant Ethic and the Spirit of Capitalism', in Sam Whimster (ed), *The Essential Weber: A Reader* (Abingdon: Routledge, 2004), p. 33.
[176] Grove (1997), p. 45.
[177] Ibid 70-72. See also, Madhav Gadgil and Ramachandra Guha, *Ecology and Equity: The use and abuse of nature in contemporary India* (Abingdon: Routledge, 1995), p. 85-86; Ramachandra Guha, *The Unquiet Woods: Ecological Change* and Peasant Resistance in the Himalaya (Oxford: Oxford University Press, 1989) 57-61; Mahesh Rangarajan, 'Imperial agendas and India's forests: the early history of Indian Forestry 1800-1878' (1994) 31 *Indian Economic and Social History Review* 147.
[178] See generally, Grove (1995), p. 1.

external, natural world: particularly the forests, soils and water needed to supply essential resources.

Cognisant of this, European states also enacted legislation to establish exclusive state monopolies over forests in colonised territories—such as West Bengal—as means to protect them from seemingly 'barbaric' native communities, who had lived within those forests—and managed them sustainably—for centuries. These laws typically outlawed pre-existing indigenous systems of resource management.[179] In their place, the new laws installed policies that sought to manage land and natural resources with reference to scientific principles. It was through such methods of colonial integration that these, and other competing knowledges, were forgotten—or disregarded—amidst an onslaught of Euro-American values and interests clothed in law's supposed universality. Yet, proponents of this logic failed to recognise that the native peoples' contribution to the degradation of nature was, at the time, negligible.[180]

Concomitantly, law reproduced a form of systemic violence. It concentrated power in European states, while habitually excluding—or denying the subjectivity of—colonised peoples. Resource-rich lands were classified as targets of financial gain. Colonised native peoples supplied not only the raw materials, but also pliant and low-cost workforces. They also offered convenient locales in which to dump hazardous wastes. All the while, these peoples received disproportionately few benefits—in terms of resources, infrastructure, or money—in return. To illustrate, Chinese workers—escaping from the Opium War and Taiping Rebellion—seeking work in mines, plantations, and railways across the world, lived in conditions akin to that of slaves.[181] Together, these factors—of outward orientation, specialisation, and economic dependence—installed

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[179] Subash M D Chandran, 'Shifting cultivation, sacred groves and conflicts in colonial forest policy in the Western Ghats', in Richard Grove, Vinita Damodaran and Satpal Sangwan (eds), *Nature and the Orient* (New Delhi: Oxford University Press, 1998), p. 689. See also, K C Malhotra and Debal Deb, 'History of Deforestation and Regeneration/Plantation in Midnapore District of West Bengal, India' in Shree B Roy et al (eds), *Policy to Practice of Joint Forest Management* (Calcutta, Inter-India Publications, 1998), pp. 279-300.

[180] See generally, Mickelson (2000). See also, Richard H Grove, 'Colonial conservation, ecological hegemony and popular resistance: Towards a global synthesis', in John M MacKenzie (ed), *Imperialism and the natural world* (Manchester: Manchester University Press, 1990), p. 15; Padideh Ala'i, 'Leopold & Morel: A Story of "Free Trade" and "Native Rights" in the Congo Free State' (2005) 37 *Studies in Transnational Legal Policy* 33, 36-37.

[181] See generally, Arnold J Meagher, *The Coolie Trade: The Traffic in Chinese Laborers to Latin America 1847-1874* (Philadelphia: Xlibris, 2008).

what some scholars describe as an 'unequal exchange',[182] both between the Occident and the Orient, and within those categories themselves.

These inequities were not ignored. They often became catalysts for significant—and sometimes violent—political upheavals, and rallying cries for many—often powerful—anti-imperialist resistance movements. For example, some critical lawyers, like Mohandas Gandhi—working as an activist from the late-nineteenth century—sought to bring attention to these structural inequalities. He had spent twenty-one years living in Southern Africa, where he was influenced by a social ethic practised by the Nguni peoples, known as *Umuntu ngumuntu ngabantuu* (or simply, '*ubuntu*'). Valuing mutual interactions between human individuals and other species, *ubuntu* understood that when 'one suffers, all suffer'.[183] Gandhi drew heavily upon *ubuntu* in formulating the idea of *sarvodaya*, a set of social principles that encompassed individual freedoms, self-sufficiency, dignity of labour, and equity in the distribution of wealth.[184] Gandhi's statement, that '[i]f I diminish you, I diminish myself', perfectly reflected *ubuntu's* underlying themes.[185] In essence, this 'holistic'—as opposed to individual—approach to socio-cultural understanding sought to challenge dominant conceptions of civilisation and nature, as well as the socio-ecological order constituted from their logics.

Gandhi denounced any idea of civilisation in which hordes of peoples were obliged to work in dangerous factories or mines—putting their own lives at risk—merely to sustain the lifestyles of the world's industrial elite. Subverting the logics of civilisation, and Linnaean-inspired natural hierarchies, he emphasised the working conditions of these peoples as 'worse than that of beasts'.[186] Gandhi's critique linked British imperialism with planetary degradation. 'The economic imperialism of a single tiny island kingdom (England) is today keeping the world in chains', Gandhi wrote. Then, fearing its effects,

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[182] Immanuel M Wallerstein, *Historical Capitalism: With Capitalist Civilization* (London: Verso, 2011), pp. 31-33. See also, Bonneuil and Fressoz (2016), pp. 322-324 (which adopts the phrase 'ecologically unequal exchange').
[183] Jacqueline Church, 'Sustainable Development and the Culture of Ubuntu' (2012) 45(3) *De Jure* 511, 521.
[184] S Narayanasamy, *The Sarvodaya Movement: Gandhian Approach to Peace and Non-violence* (New Delhi: Mittal, 2003), pp. 31-32.
[185] Mohandas Gandhi, *Peace: The Words and Inspiration of Mahatma Gandhi* (Boulder: Blue Mountain Press, 2007), p. 3. See also, Martin Luther King Jr, 'Facing the Challenge of a New Age', in Clayborne Carson, *The Essential Martin Luther King Jr: I Have a Dream and Other Great Writings* (Boston: Beacon Press, 2013), p. 25 (King's statement that '[w]hatever affects one directly affects all indirectly' also draws upon the idea of *ubuntu*).
[186] Mohandas Gandhi, 'Discussion with a Capitalist', *Young India*, 20 December 1928, in *Collected Works of Mahatma Gandhi: Volume 43* (New Delhi: GandhiServe, 1999), pp. 412-413.

he stated: '[i]f an entire nation of 300 million took to similar economic exploitation, it would strip the world bare like locusts'.[187] With these statements, Gandhi distanced himself from modernising nationalists—such as his former protégé and India's first Prime Minister Jawaharlal Nehru—who sought to emulate British models of 'progress'.[188]

In all of this, we have observed struggles over nature's meaning, and how it was to be treated as a specific regulatory object. On one hand, this was inspired by an Arcadian objective to rediscover—or revive—unsullied earthly paradises. On the other hand, many believed that preserving civilisation compelled the need to sustain a flow of natural resources to European nations. Put simply, these dual—and duelling—impulses, formalised through law, attempted to recreate Eden, while simultaneously providing the means to transform, utilise, and ravage it. In fundamental terms, the episode reveals a period in which a dominant perception of nature—and a Linnaean hierarchy of natural beings—that paraded under international law's banner of universal propriety and altruism, became threatened. It injected an unprecedented degree of concern for preserving nature into prevailing exploitative visions.

III. Triumph of the Physiocrats

In the foregoing section, we observed a set of struggles—taking place across Europe and its colonies—about how to understand, and regulate, the natural world. By the time that these struggles had taken flight, however, a number of movements had already concocted theories devoting attention to neutralising the very anxieties that inspired those counter-hegemonic struggles. One such movement, in the mid-eighteenth century, was the group that came to be known as the 'physiocrats'. The word derived from the title François Quesnay gave to his collection of writings: *Physiocratie*. To some, physiocracy (literally, the 'rule of nature') was fundamentally a theory of wealth. Quesnay's 1758 *Tableau économique* is often regarded as exhibiting a fused framework for understanding natural law and the laws of nature, in which the wealth of nations derived exclusively from agriculture.[189] He argued that the sovereign state was a 'direct manifestation of the natural order', and that farming was its soul. Quesnay thought that only agriculture

[187] Ibid 413.
[188] Arundhati Roy, *The Algebra of Infinite Justice* (New Delhi: Penguin, 2002), p. 47.
[189] Martin Albaum, 'The Moral Defenses of the Physiocrats' Laissez-Faire' (1955) 16(2) *Journal of the History of Ideas* 179, 179. The physiocrats, Marx explained, insisted that only agricultural labour 'yields a surplus-value'.

created surplus products: that is to say, only farmers could produce more goods than they consumed, which left a surplus for use by the rest of society. In Quesnay's opinion, other workers—such as those in manufacturing industries—merely moved matter around as part of their work. They consumed food in the process, which caused a net loss to society.[190]

Physiocracy's rejection of manufacturing as a source of surplus value led to it being widely disavowed as simplistic. In the discussion that follows, I acknowledge these critiques, but argue that physiocracy's methodological approach has endured. A physician by training, Quesnay sought to apply scientific and mathematical insights—particularly from Francis Bacon, John Locke, and Isaac Newton—to political economy. He also corresponded with—and was influenced by—Linnaeus.[191] Quesnay's marriage of the natural sciences with political economy significantly influenced how nature became understood. Manipulating nature—and its relation to civilisation—through elegant mathematical formulas,[192] the physiocrats believed that they had solved Eden's contradictions. Civilised peoples, they thought, could deploy carefully-devised methodologies and calculative techniques to sustain their natural resource supplies.[193]

Pierre Samuel du Pont de Nemours—a prominent follower—described physiocracy as a marker of 'civilized societies'. 'It is the science of constitutions', he continued, which teaches 'what governments ought to do for their own interest and for that of their nations and of their wealth'.[194] In Quesnay's view, this involved the 'perpetual reproduction' of goods necessary for the 'subsistence, the conservation, and the convenience of (civilised) men'.[195] Yet, in his view, any inequalities were inevitable and just—an 'essential order of justice'—because they derived from each individual's struggle, and mastery, over the

[190] Elizabeth Fox-Genovese, *The Origins of Physiocracy: Economic Revolution and Social Order in Eighteenth-Century France* (Ithaca: Cornell University Press, 1976), pp. 9-11.
[191] Ibid 11.
[192] Ibid.
[193] Anthony Brewer, *The Making of Classical Theory* (London: Routledge, 2010), pp. 3-4, 12-13. See also, Pierre Samuel du Pont de Nemours, 'Fragment d'un ouvrage intitule: Elements de philosophie économique par l'auteur des Ephémérides' (1771) 7 *Ephémérides* 16, 16-17, quoted in James J McLain, *The Economic Writings of Du Pont de Nemours* (Cranbury: Associated University Presses, 1977), pp. 102-103.
[194] McLain (1977), p. 103.
[195] François Quesnay, 'Despotisme de la Chine', quoted in David McNally, *Political Economy and the Rise of Capitalism: A Reinterpretation* (Berkeley: University of California Press, 1992), p. 123.

land. On this basis, physiocrats advocated for the 'enclosure' of forests and pastures over which native peoples and peasants had traditionally been stewards.[196]

These physiocratic voices found sympathetic ears in the French, and later German, Dutch, and British governments.[197] For example, along with Quesnay's other followers—such as France's Finance Minister Anne Turgot, and businessman Jean-Baptiste Say—Du Pont became an influential statesman and high-ranking official. Du Pont designed policies favouring farmers, who he thought behaved like 'true human being[s]' in their quest to understand 'Nature's assets and turning them to [their] own advantage'.[198] These policies influenced early American agrarianism, with Thomas Jefferson and Benjamin Franklin expressing admiration for Du Pont's work. Furthermore, Adam Smith consulted Quesnay during a 1766 visit to France, at which time he began writing his *Inquiry into the Nature and Causes of the Wealth of Nations*. The meeting left such a deep impression on Smith that he almost dedicated his book—which he completed a decade later—to Quesnay.[199] In it, Smith acknowledged the physiocrats' contribution—and particularly their scientific methods—to political economy. He wrote that the physiocrats had correctly represented that 'the wealth of nations' consisted of, not the 'consumable riches of money', but the 'consumable goods annually reproduced by the labour of the society'.[200] Consequently, Smith called physiocracy 'the nearest approximation to the truth that has yet been published upon the subject of political oeconomy'.[201]

Physiocracy's popularity—particularly amongst Euro-American governments [202] —

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[196] Jeremy L Caradonna, 'Conservationism *avant la letter?* Public Essay Competitions on Forestry and Deforestation in Eighteenth-Century France', cited in Laura Auricchio, Elizabeth Heckendorn Cook, and Giulia Pacini, *Invaluable Trees: Cultures of Nature, 1660-1830* (Oxford: Voltaire Foundation, 2012), p. 39-54.

[197] See generally, Hanna Hodacs, 'Circulating Knowledge on Nature: Travelers and Informants and the Changing Geography of Linnaean Natural History', in Gesa Mackenthun, Andrea Nicolas and Stephanie Wodianka (eds), *Travel, Agency, and the Circulation of Knowledge* (Münster: Waxmann Verlag, 2017), pp. 80-82.

[198] Pierre Samuel du Pont de Nemours, 'Éléments de philosophie économique', pp. 16-17, quoted in Liana Vardi, *The Physiocrats and the World of the Enlightenment* (Cambridge: Cambridge University Press, 2012), p. 238.

[199] Steven Stoll, 'A Metabolism of Society: Capitalism for Environmental Historians', in Andrew C Isenberg (ed), *The Oxford Handbook of Environmental History* (Oxford: Oxford University Press, 2014), p. 385.

[200] This is the book's only mention, apart from a related footnote, of the phrase 'wealth of nations'. See Smith (2002), p. 862.

[201] Ibid 862. For a summary of physiocracy's influences on American agrarianism, see also, Wendy McElroy, 'The Physiocrats', *The Future of Freedom Foundation* (online), 1 December 2010, available at: <https://www.fff.org/explore-freedom/article/physiocrats/> (last accessed on 3 November 2017).

[202] Its early supporters included the following European rulers: the Grand Duke of Tuscany, the Margrave of Baden, Catherine II of Russia who invites Mercier de La Riviere, Joseph II, and Thomas Jefferson.

conferred its disciples with unprecedented influence, power, and prestige. They devised policies to manage non-arable land. They developed land-use management and improvement programmes, which were implemented by the Dutch, British, and French East India Companies in their island colonies. These so-called 'conservation' practices also found inspiration in a German variant of physiocracy, founded by Hans Carl von Carlowitz. In his famous treatise, *Sylvicultura oeconomica*, Carlowitz called for the 'conservation and cultivation' of resources, particularly wood. 'We must aim for a continuous, resilient, and sustainable use', he stated, 'because [forests] are an indispensable thing, without which the country and its forges could not exist'.[203]

These conservationist policies ensured the means to manage supplies of resources to Europe from the colonies, as well as to control unruly marginal subjects in the colonies. For instance, Ramachandra Guha observes that European forestry practices in the colonial state of Kumaon Himalaya were instituted by colonial authorities in the late-nineteenth century in an attempt to ensure continuing stocks of pine for use in British 'railway sleepers' and 'turpentine'.[204] The logic of sourcing essential raw materials from the colonies was encapsulated in a statement by John Evelyn—an early English advocate of conservation—that it was 'better' to source all of Britain's resources from the colonies, than to 'exhaust all [their] woods at home'.[205] It led the colonial authorities to adopt increasingly punitive measures that were designed to comprehensively manage forests.[206] Arun Agrawal reveals that these measures prevented local villagers' from grazing their livestock, chopping and collecting firewood, felling timber, and harvesting fodder. Instead, the new measures criminalised these everyday practices, which had been carefully refined over centuries to ensure that they would have sufficient supplies for their subsistence. It made illegal what the villagers themselves called their 'customary use of forests'.[207]

See generally, Yves Charbit, 'The Political Failure of an Economic Theory: Physiocracy' (2002) 57(6) *Population (English Edition)* 855, 855. See also, Grove (1997), p. 16.

[203] Hans Carl von Carlowitz, *Sylvicultura oeconomica* (Leipzig: Braun, 1713), quoted in Jeremy L Caradonna, *Sustainability: A History* (Oxford: Oxford University Press, 2014), p. 39.

[204] Ramachandra Guha, *Environmentalism: A Global History* (New York: Longman, 2000), p. 81.

[205] Cited in Clarence J Glacken, *Traces on the Rhodian Shore: Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth Century* (Berkeley: University of California Press, 1967), p. 487.

[206] Guha (2000), pp. 81-82.

[207] Arun Agrawal, *Environmentality: Technologies of Government and the Making of Subjects*, New Ecologies for the Twenty-First Century (Durham: Duke University Press, 2005), pp. 133-134.

While the physiocrats' influence appeared to decline after the onset of factory production, their techniques were still taught in German and French forestry academies, such as the *L'Ecole Nationale Forestière*. These techniques included 'scientific forestry' practices, which sought to valorise, optimise, adjust, standardise, and sustain the supply of raw materials over long-term periods. Elaborating upon these techniques, British mathematician William Jevons suggested, in 1865, that a distinguishing characteristic of statehood was an ability of its government to manage inventories of key natural resources. Jevons was referring to coal, in particular, when he wrote that '[c]ivilization is the economy of power', and that 'power is coal'. He observed that it was 'the very economy of the use of coal' that sustained British industries. If managed in a manner that was 'efficient and economical', Jevons wrote, 'the more will [British] industry thrive, and [its] works of civilization grow'.[208]

American politician Gifford Pinchot studied some of these natural resource conservation techniques at the *L'Ecole Nationale Forestière* in 1889. He was inspired, in particular, by physiocratic 'sustainable yield' and crop transfer techniques.[209] Upon returning to the United States, his efforts to reform the country's forest management practices were principally concerned with maximising their material outputs and financial benefits. He was appointed, by President Theodore Roosevelt, as the first Chief of the United States Forest Service. 'Wise use' of nature, Pinchot claimed, was fundamental to maintaining political stability. He, along with other self-styled 'conservationists', opposed attempts to withdraw industry's access to needed resources. His emphasis on ensuring the long-term use of resources aligned with corporate objectives of profitability. Pinchot thought any displacement of this 'gospel of efficiency' unwarranted and unfeasible.[210] The following passage—from his 1910 book, *The Fight for Conservation*—capture Pinchot's tenets of resource conservation:

> 'The first great fact about conservation is that it stands for development […] (not merely the) husbanding of resources for future generations […] but the use of natural resources now existing on this continent for the benefit of the people who live here now […] In the

[208] William Stanley Jevons, *The Coal Question: An Inquiry Concerning the Progress of the Nation, and the Probable Exhaustion of Our Coalmines* (London: MacMillan, 1865), pp. 122, 125 (emphasis in the original).
[209] James McCarthy, 'Environmentalism, Wise Use and the Rural West', in Bruce Braun and Noel Castree, *Remaking Reality: Nature at the millennium* (London: Routledge, 1998), p. 135.
[210] Samuel P Hays, *Conservation and the Gospel of Efficiency* (Cambridge: Harvard University Press, 1959), pp. 271-276.

> second place, conservation stands for the prevention of waste […] The third principle is this: the natural resources must be developed and preserved for the benefit of the many, and not merely for the few […] Conservation means the greatest good for the greatest number for the longest time.'[211]

At the time, other movements—promoted by Sierra Club in the United States, and national parks founders Edmund Perrier and Paul Sarasin in Europe—were recognised as representing more Arcadian streams of thought. Clashing with Pinchot, John Muir—the Sierra Club's first president—subsequently founded a movement calling itself 'the preservationists'. As its name suggested, the movement's objective was to preserve natural areas and wildlife from human activities.[212] Specifically, the two former collaborators fought over the expansion of livestock grazing. They also came to bitter disagreements over government proposals to dam the Hetch Hetchy Valley in Yosemite National Park.[213]

Alongside this, an early form of 'eco-socialism'—represented in the British and French *naturiens* movement—called for a 'return to a state of nature', a desire to be happy with 'natural means alone'.[214] French activist Henri Beylie, for example, called in 1901 for 'a rapid return to a better regime, anti-civilization, to the natural state'. He continued, 'we have vowed hatred against everything that makes for human suffering, everything that takes from Man a fragment of his liberty', in which they included 'Science, Progress, the new religion'.[215] Yet, conservationist approaches eventually won United States President Theodore Roosevelt's support. He thought them less liable to 'fundamental social objections'.[216] Roosevelt also favoured conservation for its ability to support white farming communities, which he considered an 'exemplar of American racial character'.[217]

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[211] Gifford Pinchot, *The Fight for Conservation* (New York: Doubleday, Page & Company, 1910), pp. 42-48.
[212] Jedediah Purdy, 'The Politics of Nature: Climate Change, Environmental Law, and Democracy' (2010) 119(6) *The Yale Law Journal* 1122, 1147-1151. See also, Worster (1994), p. 34.
[213] Worster (1994), p. 36.
[214] Peter C Gould, *Early Green Politics: Back to Nature, Back to the Land, and Socialism in Britain, 1880–1900* (Brighton: Harvester Press, 1988).
[215] Henri Beylie, *La Conception libertaire naturienne* (1901), quoted in Christophe Bonneuil and Jean-Baptiste Fressoz, *The Shock of the Anthropocene: The Earth, History and Us* (London: Verso, 2016), p. 427.
[216] Caroll Pursell (ed), *From Conservation to Ecology: The Development of Environmental Concern* (New York: Thomas Y Crowell, 1973), p. 2.
[217] Laura L Lovett, *Conceiving the Future: Pronatalism, Reproduction, and the Family in the United States, 1890-1938* (Chapel Hill: University of North Carolina Press, 2007), pp. 110-130.

In some respects, international law and institutions replicated this physiocratic-conservationist logic. From 1867, for example, European colonial powers signed a number of bilateral nature protection treaties focused on sustaining wildlife populations, watercourses, and other aspects of nature considered 'useful' to agriculture and forestry.[218] These early instruments established protected areas for game preservation. By contrast, non-game species were not hunted at the time. Therefore, they were presumed to remain unthreatened.[219] Significantly, many European governments thought that excessive extraction and use of nature threatened to undermine their long-term security. These governments agreed that conserving supplies of these resources should displace the shorter-term interests of private and proto-corporate actors to transform—and exploit—wild places, beasts, and peoples without restriction.

Similar factors temporarily brought together the divided European Powers, in 1900, to discuss the preservation of African fauna and flora. The resulting Convention for the Preservation of Animals, Birds, and Fish in Africa—signed by seven states in May 1900, but never brought into force—had, as its objective, the protection of animals or plants, but only those which by 'general admission' were either 'useful to man or of special scientific interest' (including giraffes, zebras, and hippopotami).[220] It established a selective mechanism for protecting these species, while endorsing the '[d]estruction' of 'harmful species' (such as lions, leopards, and pythons).[221] Put alternatively, only species useful to agriculture—and other activities indicative of civilised human progress—were subject to protection under this convention. Its underlying logic was reinforced by

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[218] For example, *Convention Between France and Great Britain Relative to Fisheries*, opened for signature 18 January 1868 (entered into force on 18 January 1868), 21 IPE 1, 24, 25; *Convention Establishing Uniform Regulations Concerning Fishing in the Rhine Between Constance and Basel*, opened for signature on 9 December 1869, 9 IPE 4695, 320; *International Phylloxera Convention, with a Final Protocol*, opened for signature on 23 June 1882, 4 IPE 1571, 25; *Treaty for the Regulation of the Police of the North Sea Fisheries*, S Ex Doc 106, 50 Congress, 2 Sess 97, 24; *Convention Designed to Remove the Danger of Epizootic Diseases in the Territories of Austria-Hungary and Italy*, opened for signature on 7 December 1887, 4 IPE 1586, 25; *Agreement Between the Government of the United States of America and the Government of Her Britannic Majesty for the Renewal of the Existing Modus Vivendi in the Bering Sea*, 18 April 1882, 4 IPE 3656, 26; *Convention Between the Riverine States of the Rhine Respecting Regulations Governing the Transport of Corrosive and Poisonous Substances*, opened for signature on 11 May 1900, 25 IPE 214, 25.

[219] Richard S R Fitter, *The Penitent Butchers* (London: Collins, 1978) 7-8; Lynton K Caldwell, *International Environmental Policy: Emergence and Dimensions* (Durham, Duke University Press, 1984), pp. 38-41.

[220] *Convention for the Preservation of Animals, Birds, and Fish in Africa*, opened for signature on 19 May 1900 (never entered into force), 1900 Cd 101, Art. II(1), Schedule I. This agreement was signed in London by Britain, France, Germany, Italy, Portugal, and the Belgian Free State of Congo. Yet, it never entered into force because most signatories never ratified it.

[221] Ibid, Arts. II(13) and (15), Schedule V.

provisions conferring 'complete freedom' to each party regarding the actual administrative measures that they could apply. These provisions were designed to ensure that only the 'smallest possible interference with legitimate commerce' should occur as a result of the agreement.

This logic was replicated in the 1902 Convention for the Protection of Birds Useful to Agriculture. Ratified by ten European states, the treaty, as its title suggested, protected only those birds deemed 'useful'—specifically 'insect-eaters' (like pygmy owls and woodpeckers)—rather than those 'noxious' to agriculture or sport (such as bearded vultures, ospreys, and pelicans).[222] Following this, eleven parties—comprising both former colonies and colonisers—agreed the 1933 Convention on the Preservation of Flora and Fauna in Their Natural State.[223] Its objective was to 'preserve' supplies of species, which were economically valuable and popular with 'trophy' hunters. Alongside these instruments, the 1929 International Plant Protection Convention—like its predecessor, the 1878 Phylloxera Convention—concerned itself exclusively with sustaining outputs of cultivated crops.[224]

Other multilateral treaties incorporated innovative mechanisms to calculate—and thereby sustain—desired population numbers of wild species. For instance, the 1911 Treaty for the Preservation and Protection of Fur Seals[225]—agreed between the United States, Great Britain, Japan, and Russia—aimed to maintain supplies of seal skins from the North Pacific Ocean. Parties calculated quantitative limits on seal hunting, as well as compensation for a specified value of seal skins between them. Similarly, the 1937 Agreement for the Regulation of Whaling was ratified by eight parties, with the intention 'to secure the prosperity of the whaling industry and, for that purpose, to maintain the stock of whales'.[226] Stated in simpler terms, its objective was to manage resources for continued commercial use. Relatedly, the 'sustainable' management of forests made possible the redefinition of forests as property, and to regulate their exploitation. As we

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[222] *Convention Concerning the Conservation of Birds Useful to Agriculture*, opened for signature on 10 March 1902 (entered into force on 19 March 1902), IUCN TRE-000069, Art. 1, Schedule I.
[223] *Convention Relative to the Preservation of Fauna and Flora in Their Natural State*, opened for signature on 8 November 1933 (entered into force on 14 January 1936), IUCN TRE-000069, Art. 9.
[224] Malcolm J Foster, 'Plant protection, international', in Rudolf Bernhardt (ed), *Encyclopedia of Public International Law* (Amsterdam: Elsevier, 1997), p. 293.
[225] *Treaty for the Preservation and Protection of Fur Seals*, opened for signature on 7 July 1911 (entered into force on 15 December 1911), 37 Stat 1542.
[226] *Agreement for the Regulation of Whaling*, opened for signature on 8 June 1937 (entered into force on 1 July 1937), 1946 ATS 10.

observed in Agrawal's work on colonial forestry institutions in the Kumaon Himalaya,[227] this logic of conservation also served as a means for exercising governance over local populations, their social arrangements, and how their peoples conceptualised the idea of nature.

In hindsight, it appears that the physiocrat-conservationists succeeded in valorising particular biases associated with nature. In so doing, they buttressed a global order founded on unequal resource flows to certain Euro-American states and peoples who referred to themselves as 'civilised'. Ultimately, this instilled civilised peoples' with particular knowledge about their relationship to the natural world. More specifically, physiocratic-conservationist logic envisioned those peoples as the masters of a static and inert nature, which was potentially limitless as long as it was appropriately managed. Spurred by these influences, the parties to these treaties attempted to translate their concerns into new intergovernmental institutions. Pinchot—believing that the resources of a civilised world, hungry for more industrialisation, needed global management—urged Roosevelt to convene an International Conservation Conference in 1909. With Roosevelt's backing, Pinchot took significant steps to organise it. When Roosevelt left office, however, his successor—William Howard Taft—abandoned any ideas about holding such a conference. This led Pinchot into a number of to ill-timed political battles, which forced him to resign from his post within the administration.[228]

Regardless, inspired by Pinchot's efforts, delegates from seventeen European countries later collectively agreed—and signed—an Act of Foundation of a Consultative Committee for the International Protection of Nature in 1913.[229] It was formally constituted by 14 of those countries in 1914. However, the institution's mandate was stalled by the outbreak of the First World War. Yet, it created—like the instruments that preceded it—a broad-reaching forum—through the idea of an international conservation body—in which some (European) peoples' perceptions of nature could achieve the illusion of universality.

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[227] Guha (2000), p. 81.
[228] Charles C Mann, *The Wizard and the Prophet: Two Remarkable Scientists and their Dueling Visions to Shape Tomorrow's World* (London: Picador, 2018), p. 589.
[229] *Act of Foundation of a Consultative Committee for the International Protection of Nature*, opened for signature 19 November 1913 (never entered into force), 4 IPE 1631.

Conclusion

We have now come a long way since Linnaeus' preserved fish. Yet, it has had an enduring effect. Preserved in its present state, the fish appears fossilised. The fish could be millions of years old. Nevertheless, it swam in eighteenth-century seas. In studying it, as well as other species, Linnaeus was driven by a desire to understand how nature could be best exploited for food, medicines, and trade. His studies were intended to both engage with, and to make sense of, nature: believing that they could reveal the divine order of God's creation. Yet, through his work, Linnaeus imposed a rigid human construct upon an infinitely complex and variable world. Proceeding from this insight, I tracked the emergence of the bifurcation and categorisation of nature-civilisation—through a selection of works by key classical jurists—in order to probe how international legal thought has featured in the construction of ideas about nature. Epiphenomenally, my story has also begun to unearth how such understandings of nature feature in international law's construction.

As I have shown, the question of how we perceive nature is an inescapable part of what we think of as civilisation. So, these categories of civilisation and nature were artifices integral to one another, but inextricably reliant upon international law. Classical international jurists told stories about civilised humanity's transcendence of its primordial origins, its growing mastery over a 'nature' to which it no longer belongs, and a glorious future of plenty and prosperity which will follow when this mastery is complete. My story has told of how sovereignty—as identified with reference to the 'standard of civilisation'—depended upon the usage of nature, as conceptualised as a warehouse of inert and static natural resources. In this framing of nature as an immense 'reservoir of resources' available for generating wealth,[230] the physical world became both estranged from—but also a precondition of—civilised societies. More specifically, these fossilised ideas about an unchanging and immutable nature became antithetical reflections against which civilised peoples could identify themselves. Put simply, the idea of an external nature was a constitutive feature of the sovereign state itself. In light of this, I have argued that concepts of nature have shaped the idea of civilisation, and thus the emergence of classical international law.

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[230] Sadi Carnot, *Réflexions sur la puissance motrice du feu et sur les machines propres à développer cette puissance* (Paris: Bachelier, 1824), p. 2, quoted in Christophe Bonneuil and Jean-Baptiste Fressoz, *The Shock of the Anthropocene: The Earth, History and Us* (London: Verso, 2016), p. 49.

Furthermore, I have argued that the legal-institutional structures that sustained these perceptions of an external nature led to large-scale transformations and trade of raw material commodities. They also fostered conditions for the establishment—and continued operation—of unequal relations with—and colonial subjugation of—uncivilised peoples living within what we have become accustomed to call nature. Subsequently, my story told of how a recognition of these effects gradually came to the attentions of European peoples, especially those who had travelled to tropical island colonies. This gave rise to dissent, and opposing desires, in some quarters from those wishing to pursue the Arcadian task of rediscovering—or preserving—natural paradises. It included Muir's preservationist movement, Mohandas Gandhi's *sarvodaya*, and what the Nguni peoples called *ubuntu*. In their own ways, these ideas threatened to destabilise the legally-engineered order between civilisation and nature.

Ultimately, however, any apparent paradox—between these and dominant logics—seemed to find resolution through a turn to physiocratic philosophies and techniques. These sought to amalgamate political economy with the natural sciences. The physiocratic movement, in turn, encoded a series of assumptions about the operation of political economy—as a discipline focused on managing calculable raw materials—into international law. The assumptions had an effect of depoliticising, and conferring fixity upon, very confined ideas about nature in its relationship to civilisation. Fundamentally, international law's mutually-constitutive framing of nature and civilisation was an inextricable part of how the global order was both governed and sustained. As we shall observe in subsequent chapters, its reverberations can still be felt at the heart of contemporary international law.

CHAPTER THREE

EPIDEMICS OF THE ECONOMY'S NATURE

'The tsetse fly is the real ruler of Africa'.

— Old Akan proverb[231]

Introduction

The tsetse fly (*Glossina morsitans*) is unique to sub-Saharan Africa. Measuring only eight to 17 millimetres in length, it feeds on the blood of humans and animals. Upon feeding, the fly transmits an incurable sleeping sickness, called 'trypanosomiasis'. Trypanosomes spend part of their lifecycle in the bloodstream of host animals: mainly buffalo, warthogs, and antelope. These parasites cause confusion, disorientation, and sensory disturbances in humans; fever and anaemia in some domesticated animals. Interestingly, trypanosomes affect only humans and livestock, to which the tsetse fly's bite is often fatal. Wild animals are either resistant, or immune, to its effects.[232]

Tsetse thrives in humid areas from the Kalahari to the Sahara. It limits farmers' ability to produce food or generate income. The fly's presence impedes use of ox-drawn ploughs for commercial farming. Infected animals also struggle to breed. As a result, trypanosomiasis-carrying tsetse flies have long devastated draught animal populations across the African mainland. For instance, only two of the 500 cattle sent in 1928 to the Zambian town of Luanshya—located within tsetse-infected lands—were still alive in 1930.[233] Communities that dared to live within tsetse-infested areas typically survived by foraging, rather than through settled farming.[234] Those communities thus found it difficult to produce surplus agriculture. They were also less inclined to be politically

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[231] Julian Huxley, *Africa View* (London: Chatto & Windus, 1933), p. 863.
[232] The seminal study of the disease is John Ford, *The Role of Trypanosomiases in African Ecology: A Study of the Tsetse Fly Problem* (Oxford: Clarendon Press, 1971). See also, 'Human African trypanosomiasis', *World Health Organization* (online), available at: <http://www.who.int/trypanosomiasis_african/vector/en/> (Last accessed on 24 June 2017).
[233] Ross (2017), p. 261.
[234] See, for example, Marcella Aslan, 'The Effect of the TseTse Fly on African Development' (2015) 105(1) *American Economic Review* 382, 383.

centralised, as their rulers often struggled to exercise control over vastly scattered populations. For these reasons, tsetse was seen by successive colonial governments as 'Africa's scourge'.[235] African peoples also recognised tsetse's ability to change entire ecosystems, an idea captured in the proverb that tsetse was 'the real ruler of Africa'.[236]

Controlling tsetse became a major objective of African governments and the new international institutions established after the Second World War. They believed that tsetse eradication could expand arable land available for food cultivation, as well as for extracting energy and crucial raw materials.[237] Miners, for example, relied upon consuming high-calorific foods, increasingly farmed from tsetse-infested lands, to extract other essential raw materials, like fossil fuels. Steady supplies of fossil fuels were also needed to transport other commodities—like precious metals—across long geographical distances.[238] As I argued in the previous chapter, governments regarded such activities as identifiers of civilised peoples, and thus, statehood under international law. Civilised statehood depended, in turn, upon the ability to harness ever-increasing tracts of tsetse-free lands. Given this, it is perhaps unsurprising that the tsetse fly became a recurrent trope during the two decades following the Second World War.

With this in mind, the present chapter explores international law's role in subduing the tsetse fly and, more broadly, sustaining a socio-ecological order. Tsetse, in this story, was not only an object of eradication, but also a symbol for the operation of international law. The story in this chapter relates to my central thesis by investigating how international law's framing of nature became a vital means by which powerful states and actors sought to impose a new geopolitics, and inaugurate a new global order. In Section I, I explore the emergence of a legal object called 'the national economy'. I investigate how its creation as a separate object—or regulatory realm—depended upon the idea that natural resource supplies were limitless, and incapable of exhaustion. Following this, Section II enquires into how the newly-formed United Nations—pushed by the United States government—made one of its first priorities conserving essential raw material supplies for the purposes of expanding economic growth in wealthy First World countries. With this, my story reveals strategies by which some countries sought to ratify a logic of

[235] Ibid 385.
[236] Huxley (1933), p. 863.
[237] Ross (2017), p. 276.
[238] Ibid 277.

'conservation'. Finally, Section III examines how international institutions led activities to modernise newly-decolonised nations, such as by establishing national wildlife parks and building mega-dams. I observe how these activities further occluded competing ('preservationist') approaches to understanding nature by co-opting them in ways that reaffirmed conservationist logics, and reified the idea of the national economy. Paradoxically, they also gave rise to conditions that enabled the tsetse fly to thrive.

I. Inaugurating the 'National Economy'

This section explores two phenomena. In the first subsection, I investigate how the concept of the national economy was legally constructed. Its significance for my thesis is to demonstrate how the economy both relied upon, and reiterated, an understanding of nature as a calculable, extractable, and abundantly consumable resource. Calculations of GNP—as a dominant measure of the national economy—also helped project perceptions that individual economies were closed circuits, ostracised from any political, social, or material moorings. Put simply, this disembedded the idea of the economy from any natural constraints. Subsequently, the second subsection examines how key actors strived to install purpose-built international institutions and legal innovations, which were designed to regulate the price and quantity of global commodities. Fundamentally, these measures sought to ensure the continued availability of resources for use in wealthy states.

1.1. The Great Monetisation

Karl Polanyi's seminal study, *The Great Transformation*—published in 1944—argued that the economy emerged as a separate institutional sphere, 'disembedded' from wider political or social relations, during the nineteenth century.[239] Polanyi's epic account, however, remains controversial. The subsequent consensus arising from Polanyi's profound insight—of the economy as having arisen a distinct sphere of governmental practice and intellectual thought in the late-eighteenth or early nineteenth century—ignores a glaring fact. No political economist of that period referred to any object called 'the economy'.[240] Indeed, contemporary usage of the word—as a self-contained structure

[239] Ibid.
[240] See, for example, Timothy Mitchell, *Carbon Democracy: Political Power in the Age of Oil* (London: Verso, 2011), p. 121.

of production, exchange, and consumption of goods within a sovereign state's geographical boundaries—first appeared only during the 1930s and 1940s.[241]

Prior to that, political economists made no reference to the economy as a distinct object of study. The term referred to a process, rather than a self-contained structure. Adam Smith's usage, for example, carried a more traditional meaning associated with the thrift—or wise use—of resources. In this older definition, 'the *oeconomy*'—a composite of the Greek words for 'house' (*oikeos*) and 'management' (*nemein*)—referred to the sovereign's role in managing the internal affairs of his household: the nation-state. One such role, Smith thought, was to ensure the 'abundance'—or lack of 'scarcity'—of resources available to the sovereign's peoples.[242] Smith emphasised his definition of the term 'economy'—as a process of frugally or prudently managing resources—when he wrote that:

> 'Capital has been silently and gradually accumulated by the private frugality and good conduct of individuals [...] It is the highest impertinence and presumption [...] in kings and ministers, to pretend to watch over the *oeconomy* of private people.'[243]

In its contemporary sense, the idea of the 'economy'—as a distinct object—appeared in John Maynard Keynes' 1936 book, *The General Theory of Employment, Interest and Money*. In this work—generally recognised as the origin of macroeconomics[244]—Keynes was chiefly concerned about 'the behaviour of the economic system' as a whole. He focused on 'incomes, profits, output, employment, investment, and saving' in the aggregate, rather than those of any 'particular industries, firms or individuals'.[245] Keynes' approach was profoundly influenced by a book he read at the time, which was authored by British mathematician William Stanley Jevons, calculating the rate at which

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[241] 'Economy', *Oxford English Dictionary* (online), available at: <http://www.oed.com/view/Entry/63089?redirectedFrom=environment&> (last accessed on 12 June 2018).
[242] Smith (2002), p. 89.
[243] Ibid 136. This 'economisation' of government also became the essence of Foucault's 'governmentality', as well as his subsequent observations about expanding 'biopolitical' control. Its 'art of exercising power', Foucault wrote, was 'as its main objective' what we are accustomed to call 'the economy'. See Michel Foucault, *The Birth of Biopolitics: Lectures at the College de France 1978-1979* (Graham Burchell trans, London: Palgrave Macmillan, 2008), p. 6; Michel Foucault, *Security, Territory, Population: Lectures at the College de France 1977-1978* (London: Palgrave MacMillan, 2007).
[244] See generally, Philip Mirowski, *Machine Dreams: Economics Becomes a Cyborg Science* (Cambridge, Cambridge University Press, 2002).
[245] John Maynard Keynes, *The General Theory of Employment, Interest, and Money* (London: MacMillan, 2018) [1936], p. xvi ('Preface to the French version').

Britain's coal mines were being depleted.[246] In particular, Keynes became fascinated with Jevons' approach to measuring the concentrated movements of materials, money, and resources, in ways that could then be tabularised and tracked across time.

Jevons' calculations were themselves influenced by Richard Cantillon, whose theories had subsequently inspired François Quesnay and Anne Turgot's physiocratic writings.[247] As such, it is possible to surmise a direct line of influence from the physiocrats to Keynes' work. Building upon these influences, Keynes' believed that 'much unnecessary perplexity' could be avoided if the study of the 'behaviour of the economic system as a whole' were strictly limited to two units: labour and money.[248] Proceeding from this insight, Keynes' major innovation was to use the idea of money circulation as a basis for formulating the concept of a 'national economy'.

With this innovation, Keynes departed from earlier theories—including those of his Cambridge colleagues Arthur Pigou and Alfred Marshall—that treated systems of money exchanges as akin to barter systems. These theories, Keynes argued—in an early draft of *The General Theory* in 1932 or 1933—regarded money as 'a convenient means of effecting exchanges, as an instrument of great convenience, but transitory and neutral in its effect'. In his view, these theories used money as merely a 'neutral link' between 'between transactions in real things and real assets'.[249] Keynes elaborated this point further, explaining that classical perceptions about money—'as a mere link between cloth and wheat, or between the day's labour spent on building the canoe and the day's labour spent on harvesting the crop'—did not actually modify the 'motives and decisions' of parties to the transactions.[250]

Departing from his predecessors, Keynes referred to a new totality that he initially called the 'monetary economy'. He conceived it as representing the sum of all moments in which money was traded, or exchanged, within a nation-state's geographical boundaries.

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[246] Jevons (1865). See also, John Maynard Keynes, 'William Stanley Jevons 1835-1882: A Centenary Allocation on his Life and Work as Economist and Statistician' (1936) 99(3) *Journal of the Royal Statistical Society* 516.
[247] Richard Cantillon, *An Essay on Economic Theory* (Auburn: Ludwig von Mises Institute, 2010) [1755]. On Cantillon's influence on Jevons, see William Stanley Jevons, 'Richard Cantillon and the Nationality of Political Economy' (London: Contemporary Review, 1881). For Cantillon's influence on physiocracy, see Anthony Brewer, *Richard Cantillon: Pioneer of Economic Theory* (London: Routledge, 1992).
[248] Keynes (2018), p. 38.
[249] John Maynard Keynes, *The Collected Writings of John Maynard Keynes: Volume 13* (Austin Robinson and Donald Moggridge eds, Cambridge: Cambridge University Press, 2012), p. 408.
[250] Ibid.

It sought to calculate only a nation's income, rather than a nation's aggregate wealth.[251] In this early draft of *The General Theory*, Keynes first devised 'the economy' in its contemporary sense. Clearly, Keynes' national economy functioned with reference to the nation-state. Sovereignty demarcated the boundaries within which the circulation of money could be measured. Thus, Keynes imagined the world as a collection of separate sovereign states, each representing a discrete national economy. Through this vision, Keynes inscribed the nation-state—and consequently, international legal thought—into the structure of what was to become the discipline of macroeconomics. Subsequently, its logic relied upon the work of international legal rules and principles to delimit national boundaries, and regulate interactions between individual national economies.

Yet, significantly, Keynes' economy elided any overt role for nature—or material resources—in its construction. Defining the economy as a circulation of money enabled growth without any actual physical expansion. When measured in this way, money or resources could be counted multiple times. Therefore, national economies were not restrained by the availability of resources. They relied on natural resources, yet did not account for their usage. Put simply, national economies had no obvious limits. It is telling that, in less than 10 years after *The General Theory's* publication, Britain's coal reserves levels were no longer considered in severe crisis. By this time, the country's coal reserves—along with those of other resources—had been replaced with reserves of currency.[252] Following *The General Theory's* logic, the supply of available resources no longer presented practical limits to economic possibilities. By unburdening itself from nature in this way, national economies naturalised the idea that infinite—or limitless—growth was possible.

Systematising these logics, Simon Kuznets devised—while working in the United States National Bureau of Economic Research—a set of scientific methods with which to calculate national economies. These techniques became profoundly influential within the United States: its government began publishing national economic figures in 1942, and President Roosevelt referred to Gross National Product ('GNP') in his 1944 budget speech.[253] Thereafter, GNP rapidly became a popular metric among governments

[251] Ibid 408-409.
[252] Mitchell (2011), p. 124.
[253] Daniel Bell, *The Coming of Post-Industrial Society: A Venture in Social Forecasting* (New York: Basic Books, 1976), pp. 331-332.

worldwide. Importantly, the idea surfaced at a time during which European empires were dissolving, and a reconfiguration of the global order was taking place. Importantly, GNP played into the hands of this global reconfiguration. It made possible the quantification of each nation's size and growth. GNP also offered a common language with which all nations could imagine themselves as sovereign, geopolitically bounded, and capable of effective self-governance. GNP also allowed for the classification, and reordering, of nations with reference to it as an ostensibly objective measure. Opposing this, however, Kuznets keenly expressed awareness of its dangers. He feared that calculating 'a national total' could facilitate 'the ascription of independent significance to that vague entity called the national economy'.[254]

Following this, in 1949, an intriguing debate—involving Kuznets and other scholars—took place.[255] According to these key scholars—who had collectively developed calculations for GNP—the concept was only narrowly applicable to military expenditures. GNP's use was not appropriate during peacetime. Added to this, many participants concurred that GNP could not be used in less developed countries, where non-market—or political—factors played highly significant roles. It was also thought that any such attempt at international comparison would lead to false results. Furthermore, the scholars agreed that GNP calculations had to be reduced by the 'costs of civilization'. These costs included pollution caused from producing commodities. Yet, under current approaches, these costs were not calculated as deductions from GNP. By contrast, expenditures incurred for rectifying such damage were treated as additions to national wealth.[256] Finally, many scholars thought that mining activities had to be counted as deductions against a country's GNP, given that resource depletion would impoverish the nation. Ultimately, none of the discussed proposals were adopted. Because GNP did not account for the discovery of new resources to replace those depleted, detractors argued that the extraction of resources should also not be counted against national economies.[257]

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[254] Simon Kuznets, *National Income and Its Composition, 1919-1939, Volume 1* (New York: National Bureau of Economic Research, 1941), p. xxvi.
[255] Milton Gilbert, Colin Clark, John R N Stone, Francois Perroux, Da Kuin Lieu, Charles Evelpides, Francois Divisia, Jan Tinbergen, Simon Kuznets, Arthur Smithies; George Shirras, David H MacGregor, 'The Measurement of National Wealth: Discussion' (1949) 17 *Econometrica* 255.
[256] See generally, Herman E Daly, *Steady-State Economics: The Economics of Biophysical Equilibrium and Moral Growth* (San Francisco: WH Freeman, 1977).
[257] Juan Martínez-Alier and Klaus Schlüpmann, *Ecological Economics: Energy, Environment, and Society* (Oxford: Blackwell: 1987), p. 275. It is interesting to note that this study of material flows and resources, as opposed to markets, reflected a rival approach to political economy proposed by Americans Richard Ely and Thorstein Veblen at the beginning of the Twentieth Century. See generally, Mitchell (2011), pp. 132, 247-248.

This decision would provoke unending future discussions about formulating new indicators of national wealth and human wellbeing.

In all, calculating GNP reified the idea of the national economy as a closed circuit, alienated from any political, social, or material moorings. Subsequently, GNP's framing of nature as an apparently infinite supply of resources—incapable of exhaustion—helped project the economy as a central organising principle of mid-twentieth century global affairs. The progress of states became increasingly defined and measured in terms of GNP, the growth of which newly-decolonised Third World states strived to replicate. In other words, GNP became the dominant measure of national success, a ranking system for wealth, and proxy for wellbeing. It helped rank countries, set divisions between them, and define the objectives for national economies.[258] By the late-1950s and early-1960s, this vision of the economy—as measured by GNP—had captured the attentions of nationalist leaders worldwide, as well as international institutions, who instituted policies aimed at generating rapid national economic growth.[259] As such, measures to improve economies became subject to determination through 'technical' expertise, rather than through public contestation.

Yet, for that vision to be realised, wild natures—such as the African tsetse fly—had to be tamed, or disciplined. Where successful, the fly's eradication enabled the clearance, cultivation, and farming of previously fly-infested wilderness areas. This opened vast new areas of land for human use, allowing for the integration of livestock with crop production,[260] enabling societies to feed growing populations. This ensured sustained flows of money and resources, particularly to wealthy, techno-scientifically advanced, industrialised nations. With the control of tsetse populations, therefore, African economies—as well as of those in the Euro-American world—could finally function as if there were no limits. Those infant nations could finally take their rightful place in solidifying the logic of money circulation. This finally secured the 'scientific' measure of GNP as a key yardstick of the twentieth century. With this, tsetse symbolised what

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[258] See, for example, Pahuja (2011), p. 48.
[259] Schrijver (2010), pp. 38-43. See also, Shoko Mizuno, 'Global Governance of Natural Resources and the British Empire: A Study on the United Nations Scientific Conference on the Conservation and Utilization of Resources, 1949', in Cristina Joanaz de Melo, Estellita Vaz, Ligia M Costa Pinto, *Environmental History in the Making, Volume II: Acting* (Basel: Springer, 2017), p. 291.
[260] See generally, B S Hursey and J Slingenbergh, 'The tsetse fly and its effects on agriculture in sub-saharan Africa', available at <http://www.fao.org/docrep/v8180t/v8180T0s.htm> (last visited 2 June 2017).

had to be controlled for newly-decolonised states to achieve greater recognition in the post-war international system.

1.2. Ratifying Spheres

International law had a further effect in systematising GNP's logics. Following the Second World War, its victors forged a new international legal architecture. A key feature of this architecture was its formal separation of institutional responsibilities for 'economic' issues, from those of 'political' issues.[261] It envisioned that the United Nations institutions would exercise governance over 'political' affairs. Although the United Nations was also intended to have some general role in economic matters, for the most part, it was expected these would merely 'reinforce the broad principles' set out by the Bretton Woods Institutions.[262] Indeed, by the time the United Nations Charter was signed in June 1945, the United States and United Kingdom had already committed themselves to the Bretton Woods Institutions as a separate regulatory system over economic affairs.[263] Meanwhile, the United Nations remained deferential to the Bretton Woods Institutions over economic matters. Meanwhile, the United Nations retained sole authority over political matters.[264]

Evidently, this formal separation was logically untenable. As Sundhya Pahuja acutely observes, 'what is defined as economic or political is itself a political question'.[265] Ha-Joon Chang also writes that 'economics is about economic policy, whose making is political'.[266] Yet, ignoring these contradictions, all major sides of politics eventually

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[261] For an excellent history of this bifurcation, see Fiona Macmillan, 'International Economic Law and Public International Law: Strangers in the Night' (2004) 6 *International Trade Law and Regulation* 115.
[262] See, for example, Report from the Australian Senate Standing Committee on Foreign Affairs and Defence, *The New International Economic Order: Implications for Australia* (Canberra: Australian Government Publishing Service, 1980), p. 12.
[263] *Charter of the United Nations*, opened for signature 26 June 1945 (entered into force 24 October 1945), 1945 ATS 1945 1, Arts. 1(3), 55, 56. See also, Pahuja (2011), p. 66.
[264] See, for example, provisions in the constitution of the World Bank prohibiting any activities that 'interfere in the political affairs of any member'. See *International Bank for Reconstruction and Development Articles of Agreement*, opened for signature 27 December 1945 (entered into force on 27 December 1945), 2 UNTS 134, as amended 16 February 1989, Art. IV, section 10; *International Development Association Articles of Agreement*, opened for signature 27 December 1945 (entered into force on 24 September 1960), as amended, Art. V, section 6; *International Finance Corporation Articles of Agreement*, opened for signature 27 December 1945 (entered into force on 20 July 1956), as amended, Art III, section 9; *Multilateral Investment Guarantee Agency Articles of Agreement*, opened for signature 27 December 1945 (entered into force on 12 April 1988), as amended, Art. 34.
[265] Pahuja (2011), p. 73.
[266] Ha-Joon Chang, *23 Things They Don't Tell You About Capitalism: Twenty-Three Things They Don't Tell You About Capitalism* (London: Allen Lane, 2010), p. 37.

accepted law's abstraction of the economic from the political sphere. For instance, Ellen Meiksins Wood observed that economists from the Bank and Fund, along with historical materialists, tended to align in their adoption of:

> 'modes of analysis which, explicitly or implicitly, treat the economic "base" and the legal, political, and ideological "superstructures" which "reflect" or "correspond" to it as qualitatively different, more or less enclosed and "regionally" separated spheres'.[267]

Keynes was a major figure at the Bretton Woods Conference. In conjunction with other participants, he agreed to designate the United States dollar as the world's sole reserve currency. To bolster confidence in the dollar, the United States government pledged to convert dollars into gold at a fixed rate of US$35 per ounce. The United States had, by this time, already accumulated over 80 per cent of the world's gold. Other countries agreed to tie their own currencies to the dollar. Indirectly, it also tied them to the United States' overwhelming monopoly on the world's gold reserves. In the years following the Bretton Woods Conference, however, the rate at which the United States stockpiled gold—which was sourced predominantly from South Africa—was eclipsed by a growth in the circulation of dollars. Given this disparity, Barry Eichengreen claims, a growing trade in natural resources sustained the dollar's value. This is because dollars were needed to purchase essential raw materials.[268] In other words, the dollar's status in global finance depended on a continual flow of natural resources, particularly from the former colonies in the 'periphery' of the global South—such as African and South American nations—to a 'core' comprised of Anglo-American industrial economies in the global North.[269]

The Bretton Woods Institutions' primary architects—including Keynes—appeared aware of these connections. It was at this time that Keynes came to understand that *The General Theory* had failed to take into account the availability of natural resources. After all,

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[267] Ellen Meiksins Wood, 'The Separation of the Economic and Political in Capitalism' (1981) 0(I/127) *New Left Review* 66, 68. See also, Richard Peet, *Unholy Trinity: The IMF, World Bank and WTO* (London: Zed Books, 2003), pp. 41-43.

[268] Barry Eichengreen, *Global Imbalances and the Lessons of Bretton Woods* (Cambridge: MIT Press, 2007), pp. 40-41. Some argue that the gold standard was replaced with a 'petrodollar system'. This effectively exploited the fact that all countries needed Saudi Arabian oil to sustain their national economies. The United States government convinced the King of Saudi Arabia to accept purchases of its oil only in United States dollars, in return for military support. As the world largest oil producer at the time, this arrangement effectively cemented the value and status of the United States dollar as the world's reserve currency. See Marin Katusa, *The Colder War* (New York: Springer, 2015), pp. 54-55.

[269] See Wallerstein (2011), pp. 31-33.

money circulation depended on steady supplies of energy, food, and other raw materials. Aligning himself with a senior delegate from the United States—Harry Dexter White—Keynes proposed that a third institution—existing alongside the International Monetary Fund and World Bank—be tasked with managing the storage and exchange of important commodities. More specifically, White argued for the establishment of an 'international essential raw material development corporation'. The institution's function would be to ensure adequate raw material supplies for countries unable to secure those resources themselves. White believed that such a function would increase both 'world supply', and price regulation, of those resources.[270]

He also joined with Keynes to propose an 'International Commodity Stabilisation Corporation', whose task it would be to stockpile key commodities: such as oil, rubber, and sugar. Its intention was to stabilise supply and demand for these commodities, preventing speculative trading and attempts by individual governments to introduce 'beggar-thy-neighbour' policies.[271] This proposal was widely supported. Even some proponents of greater liberalisation and deregulation—such as Friedrich Hayek—accepted the need to link currency reserves with primary commodities. Hayek argued for replacing the gold standard with an 'international commodity standard'. This could allow currency to be issued in exchange for 'a fixed combination of warehouse warrants for a number of storable raw commodities'.[272]

Added to this, immediately after the Bretton Woods Conference, officials from the United Kingdom and the United States met in Washington DC in order to discuss plans to establish an 'International Petroleum Council'. They envisaged a form of trusteeship over what was predominantly Middle Eastern oil. Through this Council, Anglo-American officials intended to disqualify claims by oil-producing states, and international corporations, from controlling global oil supplies.[273] As a United States Department of State report suggested at the time, the need to ensure adequate oil supplies—alongside

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[270] Harry Dexter White, 'United Nations Stabilization Fund and a Bank for Reconstruction and Development of the United and Associated Nations', Preliminary Draft, March 1942, Harry Dexter White Papers, 1920-55, Box 6, Folder 6, Public Policy Papers (Princeton: Seely G Mudd Manuscript Library), Chapter III, p. 30.
[271] Alvin H Hansen, 'World Institutions for Stability and Expansion' (1994) 22 *Foreign Affairs* 248, 253-254.
[272] Friedrich A Hayek, 'A Commodity Reserve Currency' (1943) 53 *Economic Journal* 176, 184. See also, Benjamin Graham, *Storage and Stability: A Modern Ever-Normal Granary* (New York: McGraw-Hill, 1937).
[273] See generally, Mitchell (2012), pp. 112-113.

other key strategic resources—trumped the 'sovereign rights' of those resource-rich countries. Instead, the United States government favoured establishing a 'trusteeship of the big Powers' over the world's resources.[274] While these proposals fell away, their underlying strategy led the United States and United Kingdom to remove references that other countries had inserted about nature—or natural resources—from the text of the United Nations Charter.[275] These Anglo-American powers believed that such provisions in the Charter could have allowed other United Nations member states to fetter their power to unilaterally control the supplies of these resources.[276]

Nonetheless, State Department officials sought to deflect attention away this objective. They argued—during negotiations over the United Nations Charter—that including any explicit mandate for the institution to engage in activities to 'conserve' natural resources would cause the United Nations to encroach upon other planned international institutions: particularly, that of the Food and Agriculture Organization ('FAO'), United Nations Economic and Social Council ('ECOSOC'), and the proposed World Trade Conference.[277] The United States' delegates also opined that it was unlikely that member states would ever agree upon collaborative efforts to conserve natural resources until 'larger problems of trade and commodity arrangements' had been resolved.[278] Consequently, the Charter did not include any specific provisions about nature, or natural resources.

In opposition to the United States government's wishes, however, other United Nations member states immediately began interpreting the United Nations Educational, Scientific and Cultural Organization ('UNESCO') and FAO's constituent instruments in ways that extended to these activities.[279] Furthermore, in a move aligned with the United States government's desire to retain power over natural resource supplies in the economic realm,

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[274] ISS, Research and Analysis Branch, 'Comments on a Foreign Petroleum Policy of the United States', cited in Randall, *United States Foreign Oil Policy Since World War I: For Profits and Security* (2nd ed, Montreal: McGill-Queen's University Press, 2005), p. 147.
[275] McGeary (1960), p. 426.
[276] Ibid. For example, after the Second World War, the United States moved from a net exporter to a net importer of raw materials and energy. In response, its government legislated domestic policies to secure access to crucial resources: including Venezuelan and Middle Eastern oil, Indian manganese, and Congolese uranium. See Bonneuil and Fressoz (2016), p. 320.
[277] McGeary (1960), p. 426.
[278] McCormick (1991), p. 121.
[279] For an example in relation to UNESCO, see Aaron Wu, 'Bridging Ideologies: Julian Huxley, Détente, and the Emergence of International Environmental Law', in Sundhya Pahuja, Gerry Simpson, and Matthew Craven, *International Law and the Cold War* (Cambridge University Press, forthcoming 2018).

the General Agreement on Tariffs and Trade ('GATT') was drafted to permit some autonomy for its members—at least in theory, if not in practice—to implement policies relating to 'the conservation of exhaustible natural resources'. This was a major exception to the GATT's rules obligating its members to take progressively greater steps toward trade liberalisation.[280] The definition of the word 'conservation', in that context, remains largely undeliberated. Also, the degree to which this exception allows countries to impose trade restrictions to protect natural resources remains highly questionable. Regardless, I simply raise this provision in support of my contention that the United States government, and some of its strategic allies, initially regarded natural resource issues as intrinsically belonging within international law's economic realm.

Ultimately, Keynes' efforts to buttress the idea of the economy as an object, through purpose-built institutions designed to regulate global commodities, failed. Yet, a number of other factors seemed to affirm that the Keynesian economy—now ratified as a separate object through international law—need not account for the supply, or depletion, of resources. For example, global commodity prices declined significantly after the Second World War. Adjusted for inflation, the real price of beef and hides in 1953 was 72 per cent lower than it was in 1944. Between 1944 and 1970, oil prices declined by 17 per cent. Over the same period, corn prices fell by 63 per cent, sugar by 50 per cent, aluminium by 25 per cent, and gold by 10 per cent. Average metal prices—namely those of bauxite, iron ore, steel, nickel, tin, and zinc—also trended downwards, as did the price of phosphate.[281] The availability of these raw materials at relatively low prices—even in spite of increasing consumption of them—allayed concerns about the possibility of their eventual exhaustion.

Moreover, a perception that new technologies—devised by scientific experts—could synthesise new substitutes, ensured that resource stocks would not limit the growth of national economies. For instance, the production of plastics, chemicals, and fertilisers—synthesised from oil—served as substitutes for potash and coal, which suffered from often highly volatile changes in price. This affirmed Robert Solow's view that nature was

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[280] *Marrakesh Agreement Establishing the World Trade Organization* ('Marrakesh Agreement'), opened for signature 15 April 1994, 1869 UNTS 190 (entered into force 1 January 1995), Annex 1A (Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade 1994) 1868 UNTS 201, Art. XX(g).

[281] My own calculations, based on raw data from David S Jacks, 'From Boom to Bust: A Typology of Real Commodity Prices in the Long Run', Working Paper 18874, available at: <http://www.nber.org/papers/w18874> (last visited 1 June 2017), pp. 29-30.

simply a production factor, which could be substituted by an increase in either capital, or by technological innovation. According to Solow, if it were simple to substitute 'other factors' for natural resources, then the world could, in effect, 'get along without natural resources'.[282] This perceived abundance of essential resources, meant that they could continue to be consumed, with no discernible need to account for their depletion.

'Civilization', Keynes wrote in 1938, is 'a thin and precarious crust, erected by the personality and will of a very few, and only maintained by rules and conventions skillfully put across and guilefully preserved'.[283] In hindsight, Keynes may have inadvertently referred to himself, and his role in constructing the idea of the national economy. His model of a new global order—based on this idea—continues to capture the imaginations of governments all over the world. It is perhaps interesting to note, however, that Keynes may have been opposed the pursuit of endless growth. He wrote—in an essay entitled *Economic Possibilities for our Grandchildren*—that 'a point may soon be reached' when peoples' will no longer need to consume ever-increasing amounts of resources, but will 'prefer to devote further energies to non-economic purposes'.[284]

II. Preserving Logics, Conserving Hegemonies

Envisioning the economy as a separate object paved a path for additional plans to ensure access to, and conserve stocks of, the natural resources on which the economy was dependent. These plans emphasised conservation techniques as preconditions to economic prosperity. Many governments recognised the role of international law and institutions in promulgating these techniques. In what follows, the first subsection investigates how governments—led by the United States—sought to enhance their access to vital natural resources through international law. Pursuing this objective, governments convened a United Nations Scientific Conference on the Conservation and Utilisation of Resources ('UNSCCUR'), with a view to preserving continued supplies of resources vital to growth of their national economies. Subsequently, the second subsection explores a range of competing efforts—led by UNESCO and one of its subsidiary organisations, the

[282] Robert M Solow, 'The Economics of Resources or the Resources of Economics' (1974) 64(2) *The American Economic Review* 1, 11.
[283] John Maynard Keynes, *The Collected Writings of John Maynard Keynes: Volume 10* (Cambridge: Cambridge University Press, 2012), pp. 446-447.
[284] John Maynard Keynes, 'Economic Possibilities for our Grandchildren' in Lorenzo Pecchi and Gustavo Piga (eds), *Revisiting Keynes: Economic Possibilities for our Grandchildren* (Cambridge: MIT Press, 2008) 143 (emphasis supplied).

International Union for the Protection of Nature ('IUPN')—to assert alternative logics. In the third section, I observe some of the international legal and institutional means by which these logics were made subordinate to the goal of preserving an idea of nature as an exploitable resource.

2.1. UNSCCUR's Conservationism

After the Second World, the new international institutions rapidly internalised logics of the economy and nature. Post-war reconstruction efforts required ever-expanding supplies of natural resources to grow national economies. Operating through the newly-formed United Nations, member states attempted to promote a range of strategies and techniques to achieve this objective. Through a 1947 United Nations Economic and Social Council ('ECOSOC') resolution, representatives from 49 countries agreed to hold a conference in August 1949 at the United Nations' temporary Lake Success headquarters for the purpose of discussing these issues.[285] This resolution affirmed the United Nations' competence to engage in activities to conserve natural resources. With it, the conference—designated the UNSCCUR—was the first multilateral summit for almost 40 years in which country representatives convened to explicitly discuss issues about natural resources. So, the conference reveals much about how nature was perceived, and ordered, through international law. In saying this, it is the structure of arguments raised in these conferences—rather than their outcomes—that is of interest to me here.

Behind the scenes, the UNSCCUR's main catalyst was Gifford Pinchot. By now serving as the Governor of Pennsylvania, Pinchot's ideas became enormously influential with United States President Franklin Delano Roosevelt, as well as his successor, President Truman. Both presidents were receptive and willing advocates for Pinchot's attempts to convene a world conference on conservation. Mindful of his past mistakes, particularly in ignoring links between natural resources and armed conflicts—an oversight that led to the stalling of his earlier proposal to establish an 'International Conservation Conference'—Pinchot now sought to leverage the American public's sentiments, and priorities, especially that of securing peace. With this in mind, Pinchot began

[285] United Nations Economic and Social Council, 'Scientific Conference on Resource Conservation and Utilization', Yearbook of the United Nations, 1946-1947 (New York, 1947), pp. 491-492. See also, *Conservation and Utilisation of Resources*, ECOSOC Res 32 (IV), UN ECOSOCOR, 4th sess, UN Doc E/Res/32(IV) (28 March 1947), Preamble.

emphasising a role for 'Conservation as a Foundation of Permanent Peace'. He published an article under this title in the August 1940 issue of *Nature*. In it, Pinchot intimated that 'conservation of natural resources is the key to the future'. It was the 'greatest material question of all', he said.[286] Moreover, he later added:

> The very existence of our Nation, and of all the rest, depends on conserving the resources which are the foundation of its life […] International cooperation in conserving, utilizing, and distributing natural resources to the mutual advantage of all nations might well remove one of the most dangerous of all obstacles to a just and permanent world peace.'[287]

Pinchot died in 1946, three years before the UNSCCUR. Nonetheless, his idea—to frame nature conservation as a precondition for securing peaceful relations—became one of the conference's underlying themes. This theme became a drawcard for many reticent governments to engage in the process. Aside from this aim, however, Truman also saw the proposed conference as an opportunity to help configure the new global order around the United States. The UNSCCUR was organised at Truman's instigation. A large proportion of the conference's agenda was devoted to discussing how to implement Truman's 'Point Four Programme'. The programme took its name from the fact that it was the fourth foreign policy initiative outlined in Truman's famous January 1949 inaugural speech. One of Truman's claims in that speech was to make '[g]reater production' an essential facet of enduring 'prosperity and peace'. In the same speech, he also proclaimed an era of scarcity. Truman described this as one in which 'material resources' were 'limited'. He announced that the world's available resources were destined—under the Marshall Plan—for use in post-war reconstruction, to revive Europe's economy.[288]

Consequently, Truman forewarned in his speech, the United States would not be able to share those resources or capital with the world's 'underdeveloped areas'. Rather, the United States could share its 'imponderable resources in technical knowledge'. These

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[286] Gifford Pinchot, *Breaking New Ground* (New York: Harcourt, 1947), p. 324.
[287] Ibid 324, 367.
[288] In fact, the New York Times called UNSCCUR the 'first assault' of Truman's Point Four Program. See 'Blueprints Drawn to Effect Point 4', *New York Times*, 6 May 1949, p. 3, quoted in David Ekbladh, *The Great American Mission: Modernization and the Construction of an American World Order* (Princeton: Princeton University Press, 2010), p. 97. See also, Harry S Truman, *President's Inaugural Address* (Speech delivered at Washington DC, 20 January 1949) <http://www.bartleby.com/124/pres53.html> (last accessed on 5 July 2016).

were ‘constantly growing’ and ‘inexhaustible’, Truman declared. This technical knowledge could enable underdeveloped countries to better exploit natural resources for expanding production of clothing, food, and industrial goods. Following this logic, Truman further proposed that all countries could benefit from ‘a constructive program’ designed to make ‘better use of the world’s human and natural resources’.[289] One specific resource at the forefront of Truman’s mind was oil.

Even before the Second World War, many countries regarded oil as a crucial strategic commodity. In the United States, Roosevelt issued a statement in 1939 calling for stronger policies to conserve energy resources. The Atlantic Charter, which Roosevelt signed with Winston Churchill two years later, reflected this objective. In it, the parties called for more open access to raw materials, explicitly mentioning oil.[290] By 1955, oil had become such a large a proportion of global trade that a United Kingdom government report—on the treatment of oil in the country’s trade accounts—suggested that ‘the international ramifications of the oil industry […] are so large and so complex as almost to constitute oil a currency in itself’.[291] With this, however, fears grew about possible shortages. ‘The law of diminishing returns is becoming operative’, argued the Director of Reserves for the United States Petroleum Administration for War in 1943. He claimed that, ‘[a]s new oil fields are not being formed and as the number is ultimately finite, the time will come sooner or later when the supply is exhausted’. The ‘bonanza days of oil discovery’, he added, ‘belong to history’.[292]

This pessimism gave rise to what the United States government called its ‘conservation theory’. Its aim was to secure adequate supplies of natural resources—such as oil—in order to foster growth of the country’s national economy. This typically meant acquiring control over ‘extraterritorial’ oil reserves.[293] The Point Four Programme was forged in this context. It was designed to expand, not only the United States’ exports of manufactured goods, but also supplies of Third World natural resources: of which oil was

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[289] Ibid.
[290] *The Atlantic Charter*, in United Nations, *Yearbook of the United Nations 1946-1947* (Lake Success: UN, 1947), pp. 2-3.
[291] Steven Gary Galpern, *Money, Oil, and Empire in the Middle East: Sterling and Postwar Imperialism, 1944-1971* (Cambridge: Cambridge University Press, 2009), p. 15.
[292] William B Heroy, ‘The Supply of Crude Petroleum Within the United States’, 29 July 1943, pp. 4-9, quoted in Daniel Yergin, *The Prize: The Epic Quest for Oil, Money , and Power* (New York: Simon and Schuster, 2008), p. 131.
[293] Harold Ickes, ‘We’re Running Out of Oil!’ (December 1943) *American Magazine* 37.

but one of them.[294] Given manufactured goods' higher monetary value in proportion to natural resources—the prices of which tended to fall relative to those of manufactured goods—the United States' GNP—along with that of its major allies—would then be expected to grow at a rate higher than that of countries relying predominantly upon commodity and raw material exports, including many former colonies.

The rationale for Truman's Point Four Programme has thus been described as one of 'enlightened self-interest'.[295] It sought to manage a world—transitioning from colonialism to post-colonialism—in ways that enhanced the United States' status—now largely measured in terms of GNP—within the new post-war global order. In doing so, the programme reasserted the superiority of Euro-American states over their former colonies. These newly-decolonised—but now economically 'backward' states—were recognised as equal parties, in a formal political sense, with equal voting rights in the United Nations.[296] I will canvass the issue of development in more detail in Chapter Four. Yet what is important to recognise at this juncture is that Truman's Point Four Programme—and its embedding of asymmetrical trade patterns—ensured that the infant proto-Third World states would remain substantively unequal to First World states in world affairs. This was partially achieved by the vesting of majority voting power over the Bretton Woods Institutions—and thereby, over issues of the global economy—in only two countries: the United States and the United Kingdom.[297]

With these strategic movements, Truman sold the merits of a technologically-advanced, industrialised, and commercial lifestyle to proto-Third World states. In exchange, the United States would collect payment in the form of coveted natural resources. A United Nations report, published shortly after Truman's inaugural speech, underscored this lopsided relationship. Technical assistance for Third World countries meant not only improving living standards, the report claimed, but also 'support for producing steady food and resources for the world economy'.[298] Moreover, Truman's strategy of convincing these newly-decolonised countries to emulate Euro-American lifestyles—and

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[294] Ibid.
[295] Nick Cullather, 'Development? It's History' (2000) 24 *Diplomatic History* 641, 651. See also, Bruce Carlton Netschert, 'Point Four and Mineral Raw Materials' (1951) 41 *Annals of the Association of American Geographers* 133, 133.
[296] Pahuja (2011), p. 18.
[297] Ibid.
[298] United Nations, *Yearbook of the United Nations* (New York: Columbia University Press, 1951), pp. 307-323.

industrial pathways—sought to weaken the Soviet Union's rising influence over these countries. Truman believed that the use and 'scientific conservation of natural resources' would be a 'deciding factor' in the security of First World countries. It was, he stated, the last 'protective shield' against an impeding Soviet threat.[299]

For the Truman Administration, the UNSCCUR was a key (political) forum through which to promote this vision of a global order. Held over three weeks—from 17 August to 6 September 1949—at the temporary headquarters of the United Nations on Long Island, the summit was attended by over 706 participants from 52 countries. UNSCCUR was intended as a forum for exchanging ideas and experiences on resource conservation techniques. It was envisioned as a meeting of technical experts—rather than political negotiators—focused on comparing the 'economic advantages of different methods'.[300] In this way, countries would not be bound by any of the conference's outcomes. Truman identified the conference's objective as that of 'safeguarding peace', as well as providing utility to 'economically underdeveloped regions'.[301] By addressing fears of 'resource shortages and declining standards of living', Truman wrote in a letter to his representative on ECOSOC, 'conservation can become a major basis of peace'.[302] Following this logic, a senior official from the United States Department of Agriculture spoke of the need to 'arrest and reverse' threats to nature, lest they imperil 'the very existence of civilization'.[303]

The conference participants agreed to address these looming threats. The UNSCCUR agenda's scope was influenced by fears of impending resource shortages, and the possibility of declining standards of living. All the while, most participants appeared

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[299] Roger Heim, 'Letter to the director of the scientific research division at UNESCO', 29 May 1955, Archives of the Musée national d'histoire naturelle, cryptogamy, Roger Heim Collection, Box 51, Document 1, quoted in Yannick Mahrane, Marianna Fenzi, Céline Pessis and Christophe Bonneuil, 'From Nature to Biosphere: The Political Invention of the Global Environment, 1945-1972' (2012) 113(1) *Vingtième Siècle: Revue d'histoire* 127, 135.

[300] United Nations Educational, Scientific and Cultural Organization ('UNESCO'), *Preparatory Documents to the International Technical Conference on the Protection of Nature, August 1949* (Paris: UNESCO, 1949), p. 8. See also, Frank Dixey, 'Conservation and Utilization of World Resources: United Nations Conference' (1949) 164(4176) *Nature* 813, 813-815.

[301] United Nations Economic and Social Council, 'Scientific Conference on Resource Conservation and Utilization', *Yearbook of the United Nations, 1946–1947* (New York, 1947), p. 491.

[302] Ibid 492. See also, Harry S Truman, 'Letter to the United States' Representative to the Economic and Social Council of the United Nations', 4 September 1946, quoted in United Nations Educational, Scientific and Cultural Organization ('UNESCO'), *Preparatory Documents to the International Technical Conference on the Protection of Nature, August 1949* (Paris: UNESCO, 1949), p. 71.

[303] Hugh H Bennett, quoted in United Nations, *Proceedings of the United Nations Scientific Conference on the Conservation and Utilization of Resources, 17 August-6 September 1949, Lake Success, New York. Vol. 1, Plenary meetings* (Lake Success: United Nations, 1950), p. 76.

fiercely attached to preserving the very social-economic models that brought those threats into existence in the first place. Unwilling to destabilise these models, UNSCCUR participants sought to confine their discussions only to techniques for conserving supplies of the resources necessary to feed industrial economies. Many opening speeches reflected fears about volatile prices and prolonged supply disruptions. More explicitly, conference participants not only discussed the availability of fuels and energy, but also that of 'minerals', 'forests', 'soils', 'fish', and 'wildlife' resources.[304] Global demand for these resources was increasing, participants concurred. It was, therefore, 'high time' for a new era 'consecrated' to the 'wise use' of available resources, argued United States Secretary of the Interior Julius Krug.[305] ECOSOC President James Thorp summarised the conference's main objective as seeking to 'secure a larger return' from the earth's natural resources.[306]

Following this logic, conference attendees focused on applying scientific techniques to sustain stronger national economies, and to pursue global peace. Most shared the belief, which had been promulgated by the Truman Administration, that 'the earth's resources and the ingenuity of man' could provide 'almost unlimited potential for improved living standards for the world's population'.[307] So, for each resource, most participants believed that there were readily-available technical solutions with which to expand the availability of supply. Through these, Krug and others argued, it was possible to reconcile conservation with the growth of national economies: or what a senior United Nations official labelled 'the future and the present'.[308] This claim—shared by the bulk of the UNSCCUR's participants—altered the position of natural scientists in the post-war order, particularly those with knowledge of biology, chemistry, or geology. No longer were they considered as 'benevolent outsiders', who were occasionally called upon to offer apolitical advice on state affairs. With the UNSCCUR, they became recognised in

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[304] United Nations, *Proceedings of the United Nations Scientific Conference on the Conservation and Utilization of Resources, 17 August-6 September 1949, Lake Success, New York. Vol. 1, Plenary meetings* (Lake Success: United Nations, 1950), p. 5.
[305] Quoted in ibid x. See also, Pinchot (1910), p. 48.
[306] James Thorp, 'Concluding Addresses', quoted in United Nations, *Proceedings of the United Nations Scientific Conference on the Conservation and Utilization of Resources, 17 August-6 September 1949, Lake Success, New York. Vol. 1, Plenary meetings* (Lake Success: United Nations, 1950), p. 425.
[307] A I Levorsen, 'Estimates of Undiscovered Petroleum Reserves', in United Nations, *Proceedings of the United Nations Scientific Conference on the Conservation and Utilization of Resources, 17 August-6 September 1949, Lake Success, New York. Vol. 1, Plenary meetings* (Lake Success: United Nations, 1950), pp. 98-99. See also, Thomas Jundt, 'Dueling Visions for the Postwar World: The UN and UNESCO 1949 Conferences on Resources and Nature, and the Origins of Environmentalism' (2014) 101(1) *The Journal of American History* 44, 50-51.
[308] Stephen Raushenbush, *People, Food, Machines* (Washington: Public Affairs Institute, 1950), p. 129.

international law as valuable insiders, endowed with the knowledge and wisdom necessary for the new global order to function.

One proposed solution discussed at the conference was to harness resources from new, and previously unexploited, geographical locations. Participants agreed, for example, that harvesting 'underfished' tropical waters could—alongside expanded farming—solve the issue of declining fish stocks. With regard to oil, many participants spoke of 'ample evidence' of the existence of abundant, undiscovered reserves. 'Any failure of world supply to meet world demand', a prominent Stanford geologist argued, would not be 'due to a lack of undiscovered reserves but rather a failure of the discovery effort'. He then claimed that any such failure would be the result of societies not organising themselves as a 'free enterprise—profit-incentive—system', such as the United States.[309] Most UNSCCUR participants concurred that this type of economically-inspired territorial expansion offered the primary means to sustain perpetual resource use. However, Roger Heim—French botanist and IUPN President—later pointed out that 'taking advantage of all the regions that are still relatively sparsely populated or unpopulated implies conceding that there will soon no longer be any natural environment'. He warned that such an approach implied policies 'favoring even more intensive later development'. In other words, Heim thought that these proposals would merely 'aggravate' the problems they sought to resolve.[310]

Ignoring similar critiques, however, ECOSOC representatives agreed that the 'only criterion applicable' to assess the efficacy of potential solutions was that of 'economic efficiency'.[311] Their priority was, in other words, to ensure supplies of the raw materials necessary to fulfil the ever-increasing demands of growing national economies. Ultimately, the representatives of forty-nine countries agreed to call for heightened efforts to compile inventories, and 'wisely use', the planet's natural resources.[312] These resources were, in the participants' view, unexplored or underutilised for lack of adequate technologies. In rare cases, the representatives thought, these resources were overexploited for want of scientific knowledge.[313]

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[309] Levorsen (1950), p. 99.
[310] Heim (1955).
[311] United Nations, *Proceedings of the UNSCCUR* (1950), p. 15. See also, *Conservation and Utilisation of Resources*, ECOSOC Res 32(IV), UN ECOSOCOR, 4th sess, UN Doc E/Res/32(IV) (28 March 1947).
[312] Ibid.
[313] Ibid.

In addition, the conference participants made repeated references to the tsetse fly. Some commentators observed that its presence could stymie attempts to expand these 'commodity frontiers'.[314] For example, a prominent soil scientist spoke of how the fly's presence in vast areas of Nyasaland impeded the expansion of agriculture. 'Cattle are confined to a few limited localities', he explained, 'due mainly to the distribution of the tsetse fly which, as in other African territories, seriously interferes with the livestock industry'.[315] Yet, these problems were seen as rectifiable by 'scientists and engineers'. It was believed that they could use universal techniques and instruments to not only control tsetse populations, but also to extend the 'economic, technological and energetic limits' of the world's available resources. The United States, and its allies, thus attempted to promote themselves as masters of the world's resources, and guardians of their 'rational exploitation'.[316]

2.2. UNESCO and IUPN's Opposition

Those aiming to protect African wildlife considered the tsetse fly a blessing. The presence of tsetse was, as British explorer Sir Henry Stanley put it, the invariable sign of 'an extensive habitat of game'. Biologist and statesman Sir Julian Huxley also praised the fly for preserving what he called 'the wonderful hierarchy of the original wild creatures'.[317] 'Thanks to the tsetse fly', Huxley observed, extensive swathes of land were put 'out of bounds', and 'devoted to preserving nature'. It led him to propose that 'a monument should be erected to that insect, as the saviour of Africa and its unique fauna'.[318] European game hunters also apparently greeted the fly's ability to preserve 'large parts of wet, tropical Africa' with great satisfaction.[319] By impeding agriculture,

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[314] The idea of 'commodity frontiers' comes from Moore (2015), p. 21. For the effect that tsetse had in stymieing the expansion of commodity frontiers, see Alf Hornborg, 'Introduction', in Alf Hornborg, John Robert McNeill, and Juan Martinez-Alier, *Rethinking Environmental History: World-system History and Global Environmental Change* (Plymouth: Rowman Altamira: 2007), p. 16.
[315] W J Badcock, 'Soil Conservation in Nyasaland', *Proceedings of the UNSCCUR* (1950), p. 284.
[316] United Nations, *Yearbook of the United Nations* 1948-1949 (New York: Department of Public Information, United Nations, 1947), pp. 481-482. See also, United Nations, *Proceedings of the UNSCCUR* (1950), p. 47; Cornelia Bryce Pinchot, 'Resource Techniques for Less- Developed Countries', in *Proceedings of the United Nations Scientific Conference on the Conservation and Utilization of Resources, Volume I: Plenary Meetings* (Lake Success: United Nations, 1950), pp. 318-21; Marquis Childs, 'Washington Calling: More Food for a Hungry World', *Washington Post*, 24 August 1949, p. 11; 'President Assails Resources Waste', *New York Times*, 17 February 1949, pp. 1, 4.
[317] Joachim Radkau, *The Age of Ecology: A Global History* (Cambridge: Polity, 2014), p. 67.
[318] Ibid.
[319] Ibid.

Huxley and other 'preservationists' regarded the fly's presence as protecting wild nature from human activities. Stated in another way, the tsetse fly repeatedly foiled endeavours to transform nature into a source of commodifiable resources.

As the first Director-General of UNESCO, Huxley spearheaded voices opposing the UNSCCUR's logic of technocracy, scientism, resource exploitation, and its orientation toward sustaining the growth of national economies. UNESCO had, originally, been invited to support UNSCCUR's planning and administration. Yet, some of its prominent supporters expressed significant concerns. They feared that Truman's UNSCCUR promoted, under an altruistic cloak, hidden biases toward a particular vision of nature: one that was synonymous with resource extraction and utilisation.[320] UNESCO's senior leadership also suspected that the conference's preoccupation with devising techniques for the 'wise use' of resources—and the 'industrial aspects of conservation'—could undermine UNESCO's emerging role in nature protection. Huxley insisted, for example, that the narrow agenda of agreed topics proposed for discussion—such as hydropower projects—could overwhelm UNESCO's priorities. These included wildlife preservation, and other similar concerns, which offered little opportunity for economic gain.[321] Responding to UNSCCUR's draft agenda, Huxley argued for the need to include a work programme on the influence of 'natural resources on civilization', and 'forms of civilization on the use of natural resources'.[322]

When the UNSCCUR organisers ignored Huxley's pleas, UNESCO's leadership body concluded that a separate conference was needed for the organisation to adequately aspirate its views. While this proposal faced strong opposition by the United States government, Huxley put the case strongly enough to receive approval—at UNESCO's Second General Conference—to hold a separate meeting.[323] Joined by famed American

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[320] See generally, Nick Cullather, *The Hungry World: America's Cold War Battle against Poverty in Asia* (Cambridge: Harvard University Press, 2010); Michael Adas, *Dominance by Design: Technological Imperatives and America's Civilizing Mission* (Cambridge: Harvard University Press, 2006), pp. 260-270.
[321] UNESCO, 'Informal Summary of Minutes of Meeting Held at the Request of Dr. Julian Huxley in the Board Room of the National Academy of Sciences', Washington DC at 10:00am, 23 December 1947, Folder 2, Box 2, Series 1, CONS76: William Vogt Papers, Conservation Collection, Denver Public Library p. 2, quoted in Charles C Mann, *The Wizard and the Prophet: Two Remarkable Scientists and their Dueling Visions to Shape Tomorrow's World* (London: Picador, 2018), p. 52.
[322] *The Scientific Conference on Resource Conservation and Utilization*, UN Doc NS/UNR/1 (10 November 1948), p. 5.
[323] UNESCO, 'Informal Summary of Minutes of Meeting' (1947), pp. 1-6; UNESCO, *Resolutions Adopted by the General Conference during Its Second Session: Mexico, November–December, 1947* (Paris, 1948), p. 29; *International Union for the Conservation of Nature, Established at Fontainbleu, 5 October 1948* (Brussels, IUCN: 1949), available at: <http://www.iucn.org/dbtw-wpd/edocs/1948-

biologist William Vogt, and five United States government officials, Huxley chaired a December 1947 meeting to plan UNESCO's conference. In a daring move, they planned it to both coincide with, and counterpoise, the UNSCCUR. They enlisted the UNESCO's subsidiary—the 'IUPN'—to co-sponsor the meeting. The IUPN had been founded, several years earlier, at a 1946 international conference in Brunnen, between the Swiss Nature Society and British Society for the Protection of the Fauna of the Empire (in which Huxley was a prominent figure). The IUPN's Constitutive Act—signed by 65 members on 5 October 1948—expressed its purpose as that of supplementing UNESCO's protection of world heritage sites.

More specifically, the IUPN's objective was to raise awareness of the 'destructive economic methods', which threatened 'preservation of the entire world biotic community, or man's natural environment'. This included the earth's 'renewable natural resources of which it is composed, and on which rests the foundation of human civilization'.[324] While seeking to destabilise fixed ideas about nature's role in promoting the economy, the IUPN's Congress nonetheless continued to affirm nature's role as a container of raw materials awaiting utilisation—and 'exploitation'—by wealthy peoples.[325] Ongoing depletion of natural resources could lower standards of living, the IUPN's members feared. Yet, this was reversible, they concurred, if people could be:

> 'awakened in time to a full realisation of their dependence upon exhaustible natural resources and [recognised] the need for their protection and restoration as well as for their wise and informed administration in order that the future peace, progress, and prosperity of mankind may be assured.'[326]

The resulting UNESCO-IUPN conference—designated the International Technical Conference on the Protection of Nature ('ITCPN')—focused much of its attentions upon preserving African wilderness areas. It took place at a time during which decolonisation and independence movements were well underway across the world. With the end of colonialism approaching, saving Africa's nature from African peoples became a hotly debated issue. The ITCPN's participants 'stressed the urgency of directing attention

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001.pdf> (last accessed on 5 July 2018), p. 27.
[324] *Constitution of the International Union for the Protection of Nature*, established at Fontainbleau on 5 October 1948, 1948 IUCN 001, Preamble.
[325] Ibid.
[326] IUCN, *IUCN Yearbook 1973* (Morges: IUCN, 1974), p. 20.

towards Africa'. They thought that European governments had made a 'grave error' by deluding themselves about the ubiquity of African resources. To some participants, it was a delusion that would 'bring destruction to the continent'.[327] For example, IUPN's first Secretary-General—Jean Paul Harroy—projected an image of African governments as incapable of protecting what he considered humanity's common legacy, because it lacked the necessary technical resources:

> 'Africa is perhaps the more greatly menaced when its biological equilibrium is disrupted […] Elsewhere the situation is different; the U.S.A has been able to contend with its problems to a great extent because it possesses the necessary brain-power and material means. In Africa, however, available material is at a minimum, and there is not yet a sufficient body of public opinion to protect the common heritage of natural resources'.[328]

The IUPN's and UNESCO's leaders expressed concerns that the newly-independent African nations would replace their national parks and game reserves—which had been established by former colonial authorities—with industrial farms, mines, and factories. The institutions aimed to ensure these parks would remain protected. Underpinning their activities was the logic of preservation: its objective was to ensure the protection of certain natural areas from destruction. Put alternatively, it sought to resist the transformation of pristine wilderness areas into raw material resources.[329] At the ITCPN, participants discussed regulatory initiatives and activities aimed at furthering this cause. When pressed about their rationale for holding a separate conference, a UNESCO spokesperson claimed that it reflected the organisers' growing concerns that expanding multinational power stultified attempts to hold multinational corporations accountable for defiling natural environments. His intimation was that other planned initiatives—such as the UNSCCUR's focus on finding scientific and technical fixes—would almost inevitably achieve little to protect, and preserve, natural spaces. The UNESCO spokesperson explained:

> 'Today the balance has been upset […] Technical power has become disquieting. Demands are increasing. An unruffled decision made at a gathering of members of a Board or by group of officials is enough to determine the felling of a large forest

[327] United Nations, *Proceedings of the UNSCCUR* (1950), p. 157.
[328] Ibid 95.
[329] For an elaboration of the history of 'conservation' and 'preservation', see Richard White, 'American Environmental History: The Development of a New Historical Field' (1985) 54(3) *Pacific Historical Review* 297.

> thousands of miles away, or the killing of the wild fauna of a whole area on the pretext of a campaign against the tsetse fly.'[330]

His reference to the tsetse fly reflected an important point: it had become a global symbol of what parts of nature had to be eradicated as a price for achieving economic growth. Stated simply, the fly represented a wild and untamed nature, which impeded a nation's ability to prosper. With this, tsetse focused the attentions of nations and peoples striving for inclusion and status in the new global order. Some newly-formed international institutions—chiefly, the FAO and World Bank—pursued this conservationist vision. They funded programmes to eradicate the fly, largely through the extensive use of a highly-toxic chemical pesticide called 'Dichlorodiphenyltrichloroethane' (more commonly known as 'DDT'). Drawing attention to the chemical's effects on peoples and wildlife, the American biologist Henry Fairfield Osborn urged the UNSCCUR's participants—in his opening address—to take steps to preserve pristine natural environments, even at the cost of impeding the growth of national economies. Osborn was, at the time, President of the New York Zoological Society—and a former Wall Street banker—who had written a popular book a year earlier, in 1948, called *Our Plundered Planet*.[331] His views also broadly reflected those of UNESCO and IUPN, whose leaders had successfully lobbied for Osborn to represent them at the UNSCCUR.[332]

Osborn's opening statement also drew attention to UNESCO's larger aim of seeking 'a clear concept regarding man's relationship to his environment'. Humanity's last remaining hope, he said, was to evaluate its own actions against their effects upon nature.[333] Osborn elaborated on this theme at the ITCPN's opening session, held only days later. Over 250 participants from 58 countries—meeting in Lake Success alongside the UNSCCUR—heard Osborn's admonition. He argued that unbridled destruction of the earth's 'natural living resources' could cause 'incalculable loss of human life'. Osborn also claimed that it could instigate a collapse of the 'entire structure of

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[330] UNESCO, *Preparatory Documents to the ITCPN* (1949), p. 31. See also, McCormick (1991), pp. 34-38; 'Talks on Nature Slated', *New York Times*, 21 August 1949, p. 15.
[331] Fairfield Osborn, *Our Plundered Planet* (London: Faber, 1948), p. 201.
[332] UNESCO, 'Informal Summary of Minutes of Meeting (1947), pp. 4-5, Folder 2, Box 2, Series 1, CONS76: William Vogt Papers, Conservation Collection, Denver Public Library, cited in Mann (2018), p. 52.
[333] United Nations, *Proceedings of the UNSCCUR* (1950), p. 15; IUPN, *Proceedings and Papers: International Technical Conference on the Protection of Nature, Lake Success, 22 to 29 August, 1949* (Brussels: IUPN, 1950), pp. 17-19. See also, Osborn (1948), pp. 34, 48.

civilisation'.[334] With this, Osborn's remarks reflected several arguments that he had made in *Our Plundered Planet*, warning of the 'mounting destruction' industrial activities were 'inflicting on [its] life sources'.[335] Osborn highlighted how the use of 'forests, grasslands, wildlife and water sources' during the twentieth century was by far the 'most violent and the most destructive of any written in the long history of civilization'.[336] Following this, he called for safeguarding 'the continuation of […] civilization', by tempering demand for use of the earth's natural resources. Ultimately, Osborn hoped for a 'reawakening' of the 'inestimable values that nature [was] capable of providing for us'.[337] This reflected views held by UNESCO and IUPN.

The ITCPN discussed a range of topics, in which the tsetse fly repeatedly appeared. During a session on the benefits of organic agriculture, for example, interlocutors cautioned against introducing synthetic chemicals into biotic ecosystems. Several representatives warned that using DDT as an insecticide—particularly against the tsetse fly—caused significant harm to livestock, wildlife, and people. Meanwhile, others observed that the pesticide had cleared 'entire areas of the pollinating insects, honey bees, and fish, along with other beneficial fauna'.[338]

These discussions appeared to have some influence on the UNSCCUR's deliberations. In one meeting, Alfredo Gil—a Nicaraguan representative—alleged that chemical fertilisers tended to 'kill and paralyze' essential micro-organisms that were essential to 'healthy' biotic functions. He urged the United States to cease its aggressive promotion of artificial chemicals and agricultural monocultures in his country. The result, Gil warned—citing failed programmes such as the Tanganyikan Groundnut Scheme—was not only to 'impoverish the soil', but also to impoverish 'human beings, who derive their sustenance from the land'.[339] Some UNSCCUR participants also feared that relying upon these techniques could 'increase the peasant's bondage to his merchant', over and above

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[334] Fairfield Osborn, 'The Urgency of Conservation Education' (1946), quoted in Donald Worster, *Nature's Economy: A History of Ecological Ideas* (Cambridge: Cambridge University Press, 2nd ed, 1994), p. 343. See also, Anne O McCormick, 'The Promethean Role of the United States', *The New York Times*, 8 August 1945, p. 22.
[335] Osborn (1948), p. 194.
[336] Ibid 175.
[337] Ibid 195.
[338] See Edmund Russell, *War and Nature: Fighting Humans and Insects with Chemicals from World War I to Silent Spring* (Cambridge: Cambridge University Press, 2001), pp. 161.
[339] Alfredo Papi Gil (Nicaragua), 'Increasing the Productivity of Soil', in United Nations, *Proceedings of the United Nations Scientific Conference on the Conservation and Utilization of Resources, Volume VI: Land Resources* (Lake Success: UN, 1951), p. 264.

the value of any benefits derived from the crop's increased yield.[340] Speaking at the session, American ecologist William Vogt observed, for example, that power imbalances were caused when farmers bore the social and financial costs of these industrial agriculture programmes, while the 'manufacturer[s] cashe[d] in'.[341]

2.3. Institutionalising Supply and Demand

In all, both the UNSCCUR and ITCPN deliberations revealed familiar attitudes toward nature. Participants directed their attentions toward either of two objectives: firstly, discussing techno-scientific and industrial means for expanding the *supply* of natural resources (as favoured by most of UNSCCUR's attendees); or secondly, promoting ways to preserve nature's gifts by reducing *demand* for them (as favoured by many ITCPN attendees). The heart of this debate—between supply and demand—was about whether countries should focus on growing their national economies, or seek to protect the resources on which their societies seemed to depend. Either way, their concerns converged on a familiar set of logics and purposes. None sought to fundamentally oppose a vision of nature as an exploitable set of resources. Even those participants calling for radical new approaches to nature protection sought to retain this fundamental hierarchy. For example, Ollie Fink—Executive Secretary of Friends of the Land—called for a 'new culture' guided by 'ecological conscience'. He explained at the ITCPN that such a conscience depended upon revering pristine natural environments, which had value only insofar as they enriched human enjoyment.[342] With this, Fink aligned with other participants in reifying nature as an object that had to be preserved for the enjoyment of a minority of the world's peoples.

These similarities aside, the UNSCCUR's conservationist attendees opposed any suggestions that the world's resources were becoming increasingly scarce. Responding

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[340] R L Pendleton (United States), 'Improving Soil Productivity in Southeastern Asia and the Indes', United Nations, *Proceedings of the United Nations Scientific Conference on the Conservation and Utilization of Resources, Volume VI: Land Resources* (Lake Success: UN, 1951), p. 265.
[341] See also, William Vogt, *Road to Survival* (London: Gollancz, 1949), pp. 133-134. See also, Rafat Husain Siddiqui and K. S. Ch. Sardar Mohammad (Pakistan), 'Improving Soil Productivity: Tropical Climates', in *Proceedings of the United Nations Scientific Conference on the Conservation and Utilization of Resources, Volume VI: Land Resources* (Lake Success: United Nations, 1951), p. 241.
[342] Ollie Fink, 'Let's Teach Water Conservation', in IUPN, *Proceedings and Papers: International Technical Conference on the Protection of Nature, Lake Success, 22 to 29 August, 1949* (Brussels: IUPN, 1950), p. 216. See also, Vernon G Carter, 'Failure and Success in Conservation Education', in IUPN, *Proceedings and Papers: International Technical Conference on the Protection of Nature, Lake Success, 22 to 29 August, 1949* (Brussels: IUPN, 1950), p. 197.

to this claim, the United States' Secretary of the Interior Julius Krug—denied that reserves of resources 'essential to our way of living' were 'decreasing' in any way.[343] He dismissed ideas that resource exhaustion could destabilise the concept of GNP. The ITCPN's organisers remained taciturn on this point. When some participants suggested, for example, that the conference discuss 'the almost inevitable antagonism' between nature protection and economic interests, the organising committee responded only by agreeing that a single sentence 'be added at the end of the programme'. The resulting sentence invoked merely a preference for discussing this issue, a tactic that was intended not to insult or unsettle their UNSCCUR colleagues.[344]

These decisions—while seemingly trivial at the time—ensured that views about nature's abundance, and its value for building stronger national economies, remained dominant. They neutralised fears about possible future resource shortages. Following the UNSCCUR and ITCPN conferences, for instance, New York's National City Bank advertised the commercial opportunities of investing in a number of Third World countries. One advertisement, published a year after the conferences, sought to entice investors to replicate Francisco Pizarro's 1532 conquest of Peru. It stated that, '[t]oday, minerals unknown to the Conquistadores are a source of much greater revenue' than those plundered in the past. While Peru's chief exports to the United States were copper and lead, the advertisement assured, '[s]he has the largest bismuth and vanadium mines in the world'. Peru's other 'strategic materials' included zinc, tungsten, antimony, cadmium, indium. The advertisement also alluded to potential opportunities from Peru's trade imbalance with the United States, stating that American manufacturers accounted for 'nearly two-thirds' of goods imported by Peru.[345] Another advertisement declared India's eagerness to 'modernize her agriculture, to develop her natural resources, and to expand and re-equip her industries'. The advertisement also assured that India would need to purchase many advanced techno-scientific and industrial products in the future.[346]

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[343] 'Introductory and Plenary Sessions', in United Nations, *Proceedings of the United Nations Scientific Conference on the Conservation and Utilization of Resources, Volume I: Land Resources* (Lake Success: UN, 1951), p. 7. On agreement with Julius A Krug, see George Barrett, 'U.N. Calls Parley on Conservation', *New York Times*, 12 March 1949, p. 5; 'Addresses by Secretary Krug and Fairfield Osborn at U.N. Conference on Conservation', *New York Times*, 18 August 1949, p. 14; Fred Mallery Packard, 'International Technical Conference on the Protection of Nature' (1949) 47 *Journal of Forestry* 875, 888.
[344] UNESCO, *Preparatory Documents to the ITCPN* (1949), pp. 79-80.
[345] National City Bank of New York (Peru Branches), Advertisement, *Business Week*, 9 September 1950, p. 133.
[346] National City Bank of New York (India Branches), Advertisement, *Business Week*, 7 October 1950, p. 12.

The FAO shared this logic. It was established during an October 1945 conference in Quebec. The organisation's priority was to address food shortages, in addition to securing global long-term food supplies. Article 1 of the FAO's constitution identified 'the conservation of natural resources', and adopted 'improved' agricultural production methods, as central functions of the organisation.[347] Its representatives continually reproached both the IUPN and UNESCO for 'protecting nature from man instead of conserving nature and its resources for man'.[348] UNESCO gradually came to favour more conservationist activities after the end of Huxley's tenure as Director-General in 1948. Combined with the FAO's ongoing opposition, this change in UNESCO's leadership factors had implications for its affiliate, the IUPN. The change diminished the IUPN's influence in global affairs. It also left the IUPN with severe financial problems.[349]

Added to this, Heim recognised that the IUPN's funding relied upon its members recognising the 'practical interests' of the Union's work, as measured by the 'human significance of its recommendations'. Rural populations—particularly those in Third World countries—were also becoming increasingly resistant to the Union's activities in regulating land and forest use. As such, Heim feared that the word 'preservation' in the Union's name appeared too regressive.[350] In all, the IUPN was 'faced with a dilemma', emphasised Heim. Its available choices were either to reduce its programme and activities, or immediately 'find new financial means'.[351] Facing pressures from its members—particularly those from the United States, who contributed half of its US$300,000 annual operating budget—the Union was forced, in 1956, to rename itself the International Union for the *Conservation* of Nature ('IUCN'). Proponents suggested this rebadging would make the Union's work more relevant to peoples across the world.[352]

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[347] Gove Hambidge, *The Story of FAO* (New York: Van Nostrand, 1955), p. 14; 'Constitution of the Food and Agriculture Organization of the United Nations', in *Report of the Conference of FAO: First Session* (Quebec: FAO, 1945), available at: <http://www.fao.org/docrep/x5584e/x5584e00.htm#Contents> (last visited 22 May 2017), Art. I.

[348] Tracy Philipps, 'Personnel Memo (S.97) of 5 December 1956' (translated from French)', Archives of the Musée national d'histoire naturelle, cryptogamy, Roger Heim Collection, Box 47, quoted in Yannick Mahrane, Marianna Fenzi, Céline Pessis and Christophe Bonneuil, 'From Nature to Biosphere: The Political Invention of the Global Environment, 1945-1972' (2012) 113(1) *Vingtième Siècle: Revue d'histoire* 127, 136.

[349] Roger Heim, 'President's report to General Assembly', in IUCN, *Proceedings of the Sixth General Assembly of the IUCN, Athens 1958* (Brussels: IUCN, 1960), p. 175.

[350] IUCN, *Proceedings of the Fifth General Assembly of the IUCN, Edinburgh 1956* (Brussels: IUCN, 1957), p. 45.

[351] Heim (1960), p. 175.

[352] Radkau (2014), p. 65. See also, Martin W Holdgate, *The Green Web: A Union For World Conservation* (London: Earthscan, 1999), p. 55.

The newly-rebadged Union launched two joint investigations, in 1960, by British biologist and the Nature Conservancy's Scientific Director Edgar Worthington and Julian Huxley. Their reports testified to a crisis in the 'mission of the white man' in Africa. To rectify this, Huxley and Worthington proposed establishment of a 'rational' model for land use, which would transform wildlife into an economic resource and local peoples into managers of those resources.[353] This marked a significant reversal of the more preservationist views Huxley had held earlier in his career, in addition to his previous views about the tsetse fly's ability to protect nature. With this, he transmogrified the idea of nature protection from that of preserving 'unspoiled' nature, to maximising its utility to national economies.[354] In all, this represented a victory for the FAO's and ECOSOC's attitudes toward conserving, and optimising, the use of resources. It defused the approach initially taken by UNESCO, which had focused on preserving wildlife and wilderness areas.

With this victory, eradicating the tsetse fly became widely acknowledged as a legitimate conservation technique. This, and other conservationist practices, became handmaidens of a global order preoccupied with building robust national economies. In all, these laws and institutions congealed what appeared to be an internally-coherent and immanently-rational 'global' order grounded upon the need to maintain, and optimise, the growth of national economies. These reproduced logics that framed nature as a set of things needed that to sustain growth of those national economies. Through the use of international legal instruments, therefore, conservationist projects also enabled a (techno-scientific) reorganisation and exploitation of the planet under the leadership of the United States, United Kingdom, and their key strategic allies.

[353] Edgar B Worthington, *The Wild Resources of East and Central Africa* (London: HMSO, 1961), p. 3.
[354] Julian Huxley, *The conservation of wild life and natural resources in Central and East Africa* (Paris: UNESCO, 1961), pp. 16. However, Huxley had long been influenced by scientific concepts of rational control and management. He called his approach to applying these ideas to the natural world 'transhumanism'. This found expression in international environmental instruments agreed by the United States and Soviet Union during the Cold War. See Wu (2018).

III. Transmitting Afflictions

As we observed in the foregoing section, African nations were emerging as independent states at the same time that their former colonisers were making efforts to constrain their use of resources. These infant nations—having wholeheartedly accepted Truman's promise—embraced policies that sought to harness nature's potential to serve expanding national economies. I observed, however, that the tsetse fly impeded these efforts. It seemed necessary to reduce tsetse fly populations. In the circumstances, international organisations saw tsetse eradication as a priority for proto-Third World economies. UNESCO, IUCN, and the FAO implemented assistance programmes that encouraged the prolific use of DDT—and other harmful pesticides—as part of their development plans for these countries. Many also saw this strategy as one that could optimise the productivity of Third World lands for the benefit of First World consumers.

In this section, I delve into some of the institutional projects by which the logic of conservation spread to proto-Third World countries, while causing the marginalisation of competing ideas about—or approaches toward—nature. More specifically, in the following subsections, I inspect two particular sites in which conservationist techniques were both performed and transmitted. The first, in Subsection 3.1, is about wildlife parks in Tanganyika and Uganda. Following this, the focus of Subsection 3.2 is the Kariba Dam across the Zambesi River. In both cases, I explore how the activities of international institutions reproduced distinctly conservationist conceptions of nature.

3.1. Valuing African Parks and Tourism

In 1930, Huxley had approached the then-British Colonial Secretary Sidney Webb, attempting to garner support to establish wild game reserves on the African continent. These 'national parks' sought to protect—or 'preserve'—what Huxley saw as pristine African wilderness, unsullied by human alteration. An intended purpose of these parks was to prevent local African peoples from hunting wildlife for subsistence purposes. Nonetheless, Webb was initially dismissive of Huxley's proposal. To Webb, wildlife was merely 'something for landowners to shoot'. Similarly, he thought of game as something to be 'kept safe for rich men's sport'. Following further deliberations, however, Huxley eventually convinced Webb to set up national parks in all of the three British East African

territories.[355] Upon the independence of these African States in the 1950s and 1960s, the IUCN—along with other First World conservationists—encouraged their leaders to integrate nature conservation into their national development plans.[356] International tourism became a way to connect these two objectives. Huxley proposed that African countries could generate national income from the 'enjoyment value' of 'wild life and natural scenery'. Through tourism, these countries could generate some degree of wealth from setting aside what was otherwise agriculturally-productive land.[357] He explained:

> 'if the wild life of Africa is properly conserved in National Parks and similar reserves, and adequate accommodation, access, and viewing facilities are provided, an increasing number of visitors from all parts of the world will undertake the modern equivalent of pilgrimage to enjoy the spectacle, and revenue from tourism could become one of the mainstays of the economy of all East African countries.'[358]

This logic was raised at the IUCN's Seventh General Assembly in 1960. The Assembly's first three resolutions criticised foreign aid strategies in Africa, and raised 'grave concern' about efforts to safeguard African national parks and reserves. Destruction of African wilderness, IUCN members thought, 'was the most urgent international conservation problem of the present time'.[359] African foreign aid, some claimed, was 'prone to overlook[ing] conservation and the value of wildlife and habitat' as a vital 'economic, scientific, and cultural asset'.[360] Rather, members resolved that, only by the 'planned utilisation' of wildlife in this way, could its 'conservation and development be economically justified in competition with agriculture, stock ranching and other forms of land use'.[361] Through rational management and planning—designed to bring out its latent

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[355] Julian Huxley, *Memories: Volume I* (London: Allen & Unwin, 1970), p. 196.
[356] Russell E Train, 'A World Heritage Trust' in World Wildlife Fund, *The Ark Under Way: 2nd Report of the World Wildlife Fund 1965-1967* (Morges: WWF, 1967), p. 49.
[357] Huxley (1961), pp. 21-22.
[358] Julian Huxley, 'Wild Fauna and Flora of Africa as a Cultural and Economic Asset, and the World Interest Therein', in Gerard Watterson (ed), *Conservation of Nature and Natural Resources in Modern African States: A Report of a Symposium Organized by CCTA and IUCN and Held Under the Auspices of FAO and UNESCO at Arusha, Tanganyika, September 1961* (Morges: IUCN, 1963), p. 204.
[359] IUCN, 'General Statement: IUCN's Africa Special Project 1960-1963', 1 May 1961, Box 107, Huxley Papers, quoted in Stephen J Macekura, *Of Limits and Growth: The Rise of Global Sustainable Development in the Twentieth Century* (New York: Routledge, 2015), p. 47.
[360] Gerard Watterson (ed), *Conservation of Nature and Natural Resources in Modern African States: A Report of a Symposium Organized by CCTA and IUCN and Held Under the Auspices of FAO and UNESCO at Arusha, Tanganyika, September 1961*, (Morges: IUCN, 1963), p. 61.
[361] Ibid 19. See also, John Hillaby, 'African Special Project, Stage Two — the Arusha conference' (1962) 6 *Oryx* 211, 213.

economic value—wildlife conservation could be made compatible with a nation's agriculture, forestry, and development.

The IUCN's response was to launch an 'African Special Project'. It aimed to convince African leaders that implementing 'conservation practices' was in their countries' 'best interests'. The project brought together 21 newly-decolonised African countries, at the IUCN's Arusha Conference in September 1961—three months before Tanganyikan independence—to discuss the possibility of African wildlife conservation. The IUCN collaborated with several international institutions to deliver the project: the FAO, the Commission for Technical Cooperation in Sub-Saharan Africa, and UNESCO.[362] Tellingly, it was also the first project in which UNESCO and the IUCN collaborated with the FAO. The resulting 'Pan-African Symposium on the Conservation of Nature and Natural Resources in Modern African States' attracted widespread attendance by African leaders.

As part of its strategy, the project's main objective was to convince African leaders that approaches such as wildlife tourism could allow African countries to live 'off the income of their natural resources', rather than 'the capital'.[363] To achieve this, proponents couched their appeals within the language of nationalism. Huxley proposed, for instance, that national parks and nature reserves were important symbols of national prestige.[364] He identified them as symbols of modern nationhood, through which the former colonies could earn recognition on the world stage. In the 'modern world', Huxley proposed, 'a country without a national park can hardly be recognised as civilized'.[365] Slowly but surely, this aligned with a growing trend toward comprehending wildlife and nature reserves as indispensable resources that could be harnessed for the purposes of achieving Third World development. Even as late as in 2002, national parks continued to be framed as part of the essential 'international values' to which all 'nations and societies aspire[d]'.[366]

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[362] Watterson (1963), p. 61.
[363] IUCN, *IUCN Bulletin*, No. 1 (August 1961), p. 1.
[364] Huxley (1963), p. 204.
[365] Ibid 32.
[366] Paul Jepsen and Robert J Whittaker, 'Histories of Protected Areas: Internationalisation of Conservationist Values and Their Adoption in the Netherlands Indies (Indonesia)' (2002) 8 *Environment and History* 130.

Bernhard Grzimek—an IUCN member and former Director of the Frankfurt Zoo—also encouraged new African governments to promote tourism as a source of national revenue. Participating at the Arusha Conference, Grzimek bluntly pointed out to Tanganyika's Chief Minister Julius Nyerere that his country could not compete with American tourist attractions, such as the Alps and Rocky Mountains. Nevertheless, Grzimek claimed, those tourists might flock to Tanganyika if they could 'easily and safely watch elephants, lions, giraffes and rhinos – a wealth of wild animals that does not exist anywhere else'.[367] In response, Nyerere admitted his lack of concern for animals. He admitted that he could not imagine spending a free day watching crocodiles. Yet, he said that he knew of how Europeans and Americans found pleasure, fascination, even fulfilment from doing so. On this basis, he thought those animals worthy of protection. In his keynote speech to the 1961 Arusha Conference, Nyerere stressed the importance of African wildlife as a source of revenue. 'These wild creatures amid the wild places they inhabit', he said, 'are an integral part of our natural resources and of our future livelihood and well-being'.[368]

Significantly, many African peoples also attended the Arusha Conference. It was the first time that they were permitted to participate in an international conference—as opposed to merely their leaders or elites—to publicly discuss the use of their resources. For instance, at a crucial point in the conference, a Sudanese forester named Sayed Kamil Shawki gave a stirring intervention. He argued that natural resources were 'comparatively more fundamental to the economic development of underdeveloped countries' than to the more highly industrialised states.[369] Many other delegates seemed to concur with Shawki's sentiments. After some deliberations, they agreed that wildlife preservation was an unsuitable policy for African countries. Interestingly, however, Shawki's intervention also implied a belief that local practices—or traditional ways of knowing nature—needed revitalising.

Moved by Shawki's arguments, the conference participants also resolved that implementation of 'rational' and 'scientific' natural resource management principles—anchored by clearly quantifiable economic objectives—were necessary for their national

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[367] Bernhard Grzimek, 'Value of the Tourist Industry', in Gerard Watterson (ed), *Conservation of Nature and Natural Resources in Modern African States: A Report of a Symposium Organized by CCTA and IUCN and Held Under the Auspices of FAO and UNESCO at Arusha, Tanganyika, September 1961*, (Morges: IUCN, 1963), p. 190.
[368] Edgar B Worthington, *The Ecological Century* (Oxford: Clarendon Press, 1983), p. 154.
[369] Ibid 49.

economies to flourish. Influenced by this logic, the conference's final resolutions revealed 'the earnest desire of modern African states' to expand wildlife management efforts. This was to take place through greater 'land-use planning'.[370] In exchange, African leaders accepted financial and technical assistance—from First World countries and international institutions—to manage the economic affairs of their infant states. Therefore, attempts to assert local African practices and knowledge—to counter First World development models—failed. In its place, a constellation of actors—African leaders, elites, and peoples—sought to strengthen their national economies by exploiting natural resources.

Alongside this, a number of proto-Third World countries—working together in a political coalition called the Group-of-77 ('G-77') countries—sought to reform the global economic system. They sought to achieve this in ways that would displace the hegemony of First World states—such as the United States and United Kingdom—over economic affairs. Together, they passed a set of resolutions in the United Nations General Assembly where, collectively, they commanded more votes than could be marshalled by First World states. As part of this strategy, African and other newly-decolonised states attempted to reassert ownership over their lands and resources. It was a strategy linked, in one way or another, to the efficient exploitation of nature. By way of illustration, the G-77 led the authorship and adoption, in 1962, of General Assembly Resolution 1803. This resolution, entitled the Permanent Sovereignty over Natural Resources ('PSNR'), declared the following:

> 'The right of peoples and nations of permanent sovereignty over their natural wealth and resources must be exercised in the interest of their national [economies] and of the well-being of the people of the State concerned.'[371]

Shortly following this, African countries joined other proto-Third World states to adopt another vital United Nations General Assembly resolution in December 1962. The resolution stated that economic development in proto-Third World countries had, prior to this, occurred 'without due attention' to natural resource 'conservation and restoration'. It also claimed that conservation techniques might be of 'considerable

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[370] IUCN, *IUCN Bulletin*, No. 4 (July/September 1962), p. 2.
[371] *Permanent sovereignty over natural resources*, United Nations General Assembly Resolution 1803 (XVII), UN Doc A/5217 (14 December 1962), para. 1 (emphasis supplied).

importance' for proto-Third World economies. Endorsing an earlier UNESCO resolution, the General Assembly unanimously suggested that such measures 'be taken at the earliest possible moment simultaneously with economic development'.[372] Yet, in a subsequent resolution only four days later, the same (proto-Third World) countries affirmed that those principles were to be interpreted within the 'right to determine freely the use' and to 'exploit their natural wealth and resources'. Their purpose was to maintain 'the flow of capital' to those countries.[373] Ultimately, it was these logics that they sought to reproduce. On this basis, Nyerere—along with other African leaders—decided to significantly expand national parks and conservation reserves. These actions yielded immediate benefits. Under Nyerere's leadership, nature tourism quickly become Tanganyika's third-largest source of income (after sisal and diamonds).[374]

Nonetheless, this passion for conservation hid a number of other issues. We can see this, for instance, in Grzimek's similar advances to other African leaders, following his successes in Tanganyika.[375] Grzimek encouraged Uganda's government to forcibly resettle Maasai peoples to locations outside the Serengeti region. Despite heavy criticism by those peoples, along with other observers, Grzimek failed to take heed of these fundamental objections. Instead, his actions persecuted indigenous peoples, and focused on protecting big game animals rather than whole ecosystems.[376] Yet, Huxley also praised this strategy. He called the Serengeti 'the world's largest ecological laboratory'.[377] The onset of commercial aviation enabled greater numbers of wealthy Euro-American tourists to enjoy its exotic wildlife. With this, the idea of conservation (partly) absorbed anxieties about preserving wildlife populations. It reformed those anxieties into an exploitative project, turning wilderness areas themselves into resources with which to generate national income. Fundamentally, this project also transformed the African continent into 'playgrounds'—or what some called 'identity-forming

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[372] *Economic development and the conservation of nature*, GA Res 1831 (XVII), 1197th plen mtg, UN Doc A/RES/1831(XVII) (18 December 1962), Preamble, para. 2.
[373] See, in particular, *Permanent sovereignty over natural resources* (1962), para. 1. See also, *Integrated economic development and commercial agreements*, GA Res 523 (VI), 360th plen mtg, UN Doc A/RES/523(VI) (12 January 1952), Preamble; *Right to exploit freely natural wealth and resources*, GA Res 626 (VII), 411th plen mtg, UN Doc A/RES/626(VII) (21 December 1952), para. 1
[374] Bernard Grzimek, *Auf den Mensch gekommen*, p. 331, cited in Joachim Radkau, *The Age of Ecology: A Global History* (Cambridge: Polity, 2014), p. 72.
[375] Ibid 437.
[376] Jonathan S Adams and Thomas O McShane, *Myth of Wild Africa: Conservation Without Illusion* (Oakland: University of California Press, 1997), p. 50.
[377] Julian Huxley, *Memories: Volume II* (New York: Harper & Row, 1973), p. 251.

sanctuaries'—for the world's wealthy minority.[378] This reified both the idea of conservation—as a set of activities directed toward economic productivity—as well as the concept of the national economy itself.

Regardless of its exploitative logic, this idea of conservation was endorsed by many African governments. A preambular paragraph to the Convention and Statute Relating to the Development of the Chad Basin, which its parties signed on 22 May 1964, endorsed the need to use the Chad Basin's resources for 'economic ends'.[379] Thirty-Eight states also signed the African Convention on the Conservation of Nature and Natural Resources at a September 1968 conference in Algiers.[380] During its preparation, the Organisation of African Unity ('OAU') had requested assistance from the IUCN. It also worked closely with the FAO and UNESCO to prepare the draft text. Among other things, the convention declared that 'soil, water, flora and faunal resources constitute a capital of vital importance to mankind'. OAU member states also claimed a 'duty to harness' the continent's natural resources for 'the total advancement' of its peoples. Expressing concern for the possible depletion of these 'irreversible assets', states accepted that their utilisation had to satisfy the 'needs of man', within nature's 'carrying capacity'. The OAU thus sought to ensure that resources were conserved 'with due regard' to their peoples' interests. These interests were to be determined through 'scientific principles'.[381]

Successful implementation of these resolutions relied upon those states' ability to control tsetse fly populations. This was particularly the case in areas designated as tourist attractions. States could profit from foreign tourists' fascination with encountering wild animals, but only if national parks were clear of tsetse. With this realisation, vast areas of land—particularly in Uganda and Tanganyika—were subjected to insecticide spraying with DDT and benzene hexachloride ('BHC'). These highly-toxic carcinogens found their way into rivers and streams, where they contaminated freshwater supplies across extensive areas, harming plants, animals, and people alike.

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[378] Anna Wöbse, *Schtuz naturlicher Schonheit*, p. 59, quoted in Joachim Radkau, *The Age of Ecology: A Global History* (Cambridge: Polity, 2014), p. 71.
[379] *Convention and Statute Relating to the Development of the Chad Basin*, opened for signature on 22 May 1964 (entered into force on 15 September 1964), 1976 UNTS 4, Preamble.
[380] *African Convention on the Conservation of Nature and Natural Resources*, opened for signature on 15 September 1968 (entered into force on 16 June 1969).
[381] Ibid, Preamble. See also, Commission for Technical Co-operation in Africa, *African Charter for the Protection and Conservation of Nature* (London: COTA, 1963), Art. 2. See also, IUCN, 'The Ecology of Man in the Tropical Environment', *IUCN Bulletin*, No. 8 (July/September 1963), p. 1.

3.2. Taming Rivers, 'Reaching for the Sky'

Clearing tsetse-infected areas also enabled African states to reap vast material resources. These resources could then be reinvested in large-scale, cinematic, prestige projects. For example, the attraction of constructing mega-dams loomed large for these infant nations.[382] They found inspiration in numerous high-profile examples, such as Roosevelt's Tennessee Valley Authority Project. Ambitions to emulate First World economies, while reconciling these with resource management objectives, led to the widespread construction of similar projects across the African continent. Constructing these became a well-known conservation technique. Moreover, Rob Nixon explains that these structures were also widely regarded as symbols of modernity, nationalist self-assertion, and 'unifying spectacles of imagined community'.[383] Just as other mega-projects were frontlines in the Cold War rivalry between the United States and the Soviet Union, the ardour with which dams were embraced by African—along with many other proto-Third World—governments exemplified bitter rivalries with their former colonisers. In place of nature protection or even human life expectancy, for instance, mega-dams were visual testaments to economic progress. By taming their rivers, and literally 'reaching for the sky', these nations believed themselves to have joined the ranks of modern economies.[384]

For example, flagship hydropower projects—such as Egypt's Aswan High Dam, India's Hirakud Dam, and the Kariba Dam (between Zambia and Zimbabwe)—were supposed to usher their host nations into the modern era. Nevertheless, these complex projects tended to cost far more, but produce far less energy, than initially expected.[385] They were also designed and built by technical experts. It was hoped, for example, that the Aswan High Dam Project would increase agricultural land along the Nile River. The dam was also anticipated to generate vast amounts of electrical power for use by Egyptian industries.

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[382] For an incisive critique of the human rights implication of constructing large dams as a type of modernisation strategy, see Upendra Baxi, '"What Happens Next is Up to You": Human Rights at Risk in Dams and Development' (2001) 16 *American University International Law Journal* 1507.
[383] Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge: Harvard University Press, 2011), p. 159. See also, Jawaharlal Nehru, *Dams are the Temples of Modern India* (Speech delivered at New Delhi, 8 July 1954), cited in Arundhati Roy, *The Cost of Living* (New York: The Modern Library, 1999), pp. 13, 82.
[384] Nixon (2011), p. 166. See also, Daniel Klingensmith, 'One Valley and a Thousand: Dams, Nationalism, and Development (New Delhi: Oxford University Press, 2007).
[385] World Commission on Dams, *Dams and Development: A New Framework for Decision-Making* (London: Earthscan, 2000), p. 5.

It was thought that this would both obviate the need to combust finite resources for power generation purposes, as well as offer a new resource—that is to say, electricity—which the country could export in order to generate income. Perhaps most importantly, however, its construction became a symbol of Egyptian independence. The dam's redemptive symbolism was captured in chanting of crowds: 'Nasser, Nasser, we come to salute you; after the Dam our land will be paradise'.[386] Nonetheless, the dam ultimately reorganised and solidified power in a small group of corporate, industrial, and political actors.[387] In so doing, constructing large dams became a technique for marginalising dissent, and for consolidating dominant logics about conservation.

These mega-dam projects also heightened inequalities within states. Nixon calls this the creation of 'unimagined' communities. Large dams vindicated the task of disciplining an irrational natural world—along with its peoples—in ways that seemed to be exorcised of politics. Yet, the resulting 'displacement, dispossession, and exodus' of peoples was considered a 'heroic offering on the pyre of national development'.[388] 'If you are to suffer', Indian President Jawaharlal Nehru said in 1948 to villagers displaced by the Hirakud Dam, 'you should suffer in the interest of the country'.[389] Moreover, the immense costs of these glamour projects—funded by the World Bank, United States, and Soviet Union—shackled infant nations with calamitous debts. Their stifling conditionalities created structures of dependence, which persisted for decades. The Kariba Dam, for instance, seemed to offer large-scale solutions to conserving water and energy resources, which could be used to develop Zambia and Zimbabwe's national economies. Straddling the border between these two Rhodesias, designed by First World experts—French architects and built by Italian engineers—the dam's construction began in 1956. Its purpose was to generate enough electricity for the countries' extractive industries, particularly the copper mines in what was then Northern Rhodesia. As Nixon argues, the harms inflicted by these projects was 'the legacy of a very modern external plunder by far-off forces'.[390]

The World Bank issued its largest-ever loan to finance the project. While architects

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[386] Nixon (2011), p. 33
[387] Timothy Mitchell, *Rule of Experts: Egypt, Techno-politics, Modernity* (Berkeley: University of California Press, 2002), pp. 20-52.
[388] Nixon (2011), pp. 163-164.
[389] Roy (2002), p. 47. On the dimensions of this suffering, see Baxi (2001), p. 1510.
[390] Mitchell (2002), p. 165.

intended to ensure the dam could withstand a one-in-ten-thousand-year flood, their calculations used only three decades of Zambezi flow data.[391] This proved inadequate for reliable forecasting. In 1957, a year after construction began, the dam site encountered a flood that exceeded the architects' projections. They hurriedly enlarged the dam's spillway, before the dam encountered yet another flood in 1958. This was twice as large as the previous one. So, the designers enlarged the spillway again. It led them to deviate from the original plans, by installing six sluice gates—rather than three—to deal with the higher water levels.[392] In the years since its completion, water flowing through the dam's now-six floodgates has carved a vast crater, 100 metres deep, at its base (and in front of the dam wall). Over the subsequent 50 years, the crater has grown to within 30 metres of the dam's foundations. The entire dam is at risk of collapse if the crater undercuts those foundations. For this reason, since the 1990s, the dam's operators—as a precaution against enlarging the crater—have been allowed to open only three of the floodgates at once.[393]

Yet, this was not the end of the Kariba Dam's difficulties. Successive droughts lowered the Zambezi Reservoir to 12 per cent of its usual water levels. This significantly reduced the dam's hydroelectric generation capacity. It is now predicted that intensified flooding events and droughts could imperil Kariba even further, particularly if it is damaged by water flowing over the top of the dam and down its face.[394] Kariba's collapse would release a torrent of water four times larger than the Zambesi's highest recorded flood. The resulting flood would destroy another dam, Mozambique's Cahora Bassa Dam—located 480 kilometres downstream—that delivers 40 per cent of Southern Africa's entire electricity supply. Along with devastating the valley's wildlife, the Zambesi River Authority also predicts that such a flood could put the lives of 3.5 million people at risk.[395]

Moreover, the Kariba Dam affected countless people, who were forced to resettle in tsetse fly-infested lands. As with many other mega-dam projects, more attention was given to the technical feasibility and national economic gains of these projects than to the

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[391] Jacques Leslie, 'One of Africa's Biggest Dams is Falling Apart', *The New Yorker* (online), available at <http://www.newyorker.com/tech/elements/one-of-africas-biggest-dams-is-falling-apart> (last accessed on 20 June 2016).
[392] David M Hughes, 'Whites and Water: How Euro-Africans Made Nature at Kariba Dam' (2006) 32(4) *Journal of Southern African Studies* 823, 826.
[393] Leslie (2016).
[394] Ibid.
[395] Chris Haslam, 'The marooned baboon: Africa's loneliest monkey', *BBC News* (online), available at: <http://www.bbc.co.uk/news/magazine-29441074> (last accessed on 20 June 2016).

wellbeing of displaced peoples. Homes, families, livelihoods, and traditions were lost to the reservoir's rising waters. According to a World Commission on Dams report, around 57 per cent of area swallowed by the Kariba Dam's Zambezi Reservoir—the world's largest—was formerly arable land, settled by 57,000 indigenous Tonga people, and free of tsetse.[396] Those peoples were offered no compensation, little information, and given no other choice but to relocate. They were reportedly 'treated like animals or things rounded up and packed in lorries', before being resettled in new locations. Resistant communities were quickly suppressed by British colonial authorities. Their villages were burned so that they could not return to them.[397]

To add further injury, the 36,000 Tonga peoples forcibly resettled in 1957 were not permitted to hunt wild animals on their new lands. Such activities were prohibited by Rhodesian conservation laws. Effectively, these peoples were resettled away from rich alluvial lands, which could be farmed without requiring the use of artificial fertilisers. Their new destinations were places marred by low rainfall, sandy soils—requiring heavy use of industrial chemicals to sustain even minimal levels of agriculture—and high tsetse fly populations.[398] To make matters even worse for these resettled peoples, the shores of the Zambesi Reservoir—still the largest ever built—transformed into a habitat for tsetse flies. Its low-growing shrubs became tsetse fly breeding grounds. Before the dam's construction, tsetse had only existed in isolated enclaves along the water's edge. Tonga peoples, who lived along the Zambezi River, maintained complex trading patterns with urban communities. They invested money from sales of fish, tobacco, and even locally-brewed beer, in cattle, cotton, and maize.[399] As Lake Kariba's waters rose, however, rapidly declining fish stocks drove more Tonga fisherman to turn to farming as a source of their livelihoods. However, falling nutrient levels along Kariba's banks—

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[396] Basilwizi Trust, 'Legacy of Dams on the Zambesi: Group Works at Kariba Dam', *International Rivers* (online), available at: <https://www.internationalrivers.org/resources/legacy-of-dams-on-the-zambezi-group-works-to-right-wrongs-at-kariba-dam-1995> (last accessed on 4 April 2018).
[397] World Commission on Dams ('WCD'), *Kariba Dam: Zambia and Zimbabwe* (2000), available at: <https://cpb-us-e1.wpmucdn.com/share.nanjing-school.com/dist/1/43/files/2013/05/World_Commission_on_Dams_2000_Case_Study_Kariba_Dam_Final_Report_November_2000-2etc5lv.pdf> (last accessed on 4 April 2018), p. xii.
[398] Singy Hanyona, 'Zambia's Tonga People Reveal their Environmental Testimonies', *In Motion Magazine* (online), available at <http://www.inmotionmagazine.com/global/s_hanyona.html> (Last accessed on 21 June 2017).
[399] Ragnhild Overa, 'Market development and investment "bottlenecks" in the fisheries of Lake Kariba, Zambia', in FAO, *Management, Co-management or No Management?: Major Dilemmas in Southern African Freshwater Fisheries: 426-2* (Rome: FAO Fisheries and Aquaculture Technical Papers, 2003), p. 210.

caused by the dam blocking silt from flowing downstream—caused further impediments to their ability to successfully farm the land.[400]

With tsetse fly populations multiplying along the reservoir's banks, Tonga livestock became infected with trypanosomiasis. In one region, the disease killed more than half of the cattle population.[401] This reduced the amount of protein available to the Tonga peoples. It also forced an expansion of industrial—as opposed to subsistence—agriculture. Perhaps predictably, then, extensive use of artificial fertilisers reduced soil fertility. They also depleted aquifers and contaminated ground water. Furthermore, these inputs were bought at high cost by Tonga farmers, many of whom earned low wages. As I suggested in the previous section, this was largely a result of Euro-American countries' international legal interventions to ensure continued access to cheap natural resources. Widespread use of DDT and BHC in these regions, as attempts to control tsetse populations, also caused severe illnesses among Tonga peoples.[402] Furthermore, Tonga farmers' efforts to replace wild crop varieties with limited high-yield monocultures—particularly cotton and maize—lowered biological diversity along the Kariba River's banks. These factors likely lowered Tonga farmers' resistance to other pests, diseases, and their propensity to withstand the effects of climate change.[403]

In all, this complex arrangement relied on the operation of international law and institutions. British and Portuguese colonial authorities signed a 1954 treaty in Lisbon to resettle affected peoples—including Tonga communities—to areas along the Portuguese side of the dam.[404] Upon the dissolution of the federation between what was North and

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[400] Ibid.
[401] Robert R Curry, Ferren MacIntyre, George Macinko, John P Milton, and Raymond J Sherwin, 'Discussion', in Maxine E McCloskey (ed), *Wilderness: The Edge of Knowledge* (New York: Sierra Club, 1970), p. 257.
[402] See generally, David Pimentel, 'Green revolution agriculture and chemical hazards' (1996) 188 *The Science of the Total Environment* (Supplement 1) S86. See also, WCD (2000), p. x.
[403] Cary Fowler and Pat Mooney, *Shattering: Food, Politics, and the Loss of Genetic Diversity* (Tucson: University of Arizona Press, 2nd ed, 1996), pp. 63-81; United Nations Environment Programme and GRID-Arendal, *The Environmental Food Crisis: The Environment's Role in Avering Future Food Crises* (Oslo: Birkeland Trykkeri AS, 2009), pp. 65-76; Gordon Conway, *The Doubly Green Revolution: Food for all in the 21st Century* (London: Penguin, 1997), pp. 86-104.
[404] *Agreement between the government of the United Kingdom of Great Britain and Northern Ireland on their own behalf and on behalf of the government of the Federation of Rhodesia and Nyasaland and the government of Portugal with regard to certain Angolan and Northern Rhodesian natives living on the Kwando River*, opened for signature on 18 November 1954 (entered into force on 18 November 1954). See also, Davison Saruchera, Jonathan Lautze, Juliet Mwale, Claudious Chikozho, and Osborne N Shela, 'Transboundary water cooperation: Taking stock and looking forward', in Jonathan Lautze, Zebediah Phiri, Vladimir Smaktin, and Davison Saruchera, *The Zambezi River Basin: Water and Sustainable Development* (Abingdon: Routledge, 2017), p. 287.

South Rhodesia in early 1963, the parties agreed upon a new legal-institutional framework. It established a Central African Power Corporation ('CAPCO') under the joint ownership and control of the two governments. This set out CAPCO's funding, assigned its responsibilities, and delineated its powers.[405] South Africa also signed a joint agreement with Portugal in 1967 to finance the Kariba Dam.[406] A 1969 instrument was written to formalise the dam's supply of electricity to South Africa.[407]

Like the tsetse fly, these instruments transmitted now-familiar logics of dominance, mastery, and conservation that spread—like trypanosomiasis—throughout Third World states. We can also observe, in this case of the Kariba Dam, how law fostered a parasitic relationship—or hierarchical ordering—between the Bank, FAO, UNESCO, IUCN, Zambian-Zimbabwean governments, foreign experts, and Tonga peoples. The Bank's recent decision to finance Kariba's US$300 million repairs also challenges the logic of desiring mastery over nature.[408] Rather, it illuminates the fact that once these new orders are created, they must continue to be managed indefinitely. Put simply, when enshrined in law, the logic of conservation became self-sustaining.

Conclusion

This chapter has furthered my central thesis by exploring what international law has had to do with how nature is understood. In particular, I have investigated the role of international law in transmitting a particular vision of nature after the Second World War. In the chapter, I positioned this vision against the emergence of a particular notion of the economy. I argued that this vision of nature became a precondition for the formation of what we call the national economy, which was constructed as an apparently separate regulatory object and realm of international law. This relied upon a sustained framing of nature as a resource that was abundant and limitless. Yet, by the end of the war, these

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[405] Aaron T Wolf, Lynette de Silva, and Melissa McCracken, 'Transboundary Freshwater Dispute Database', available at: <http://gis.nacse.org/tfdd/treaties.php> (last accessed 12 August 2018). See also, Mark Giordano, Alena Drieschova, Janes A Duncan, Yoshiko Sayama, Lucia De Stefano, Aaron T Wolf, 'A review of the evolution and state of transboundary freshwater treaties' (2014) 14(3) *International Environmental Agreements: Politics, Law and Economics* 245, 265.

[406] *Agreement between South Africa and Portugal relating to hydropower development on the Zambesi River*, opened for signature on 1 April 1967 (entered into force on 1 April 1967).

[407] *Agreement to Purchase electricity from Cabora-Bassa Scheme*, opened for signature on 19 September 1969 (entered into force on 19 September 1969).

[408] 'World Bank Group to Finance Repairs to the Zambezi River's Kariba Dam', *The World Bank* (online), available at: <http://www.worldbank.org/en/news/press-release/2014/12/09/world-bank-group-repairs-zambezi-river-kariba-dam> (last accessed on 5 December 2017).

perceptions toward nature had induced anxieties and misgivings, not only at the highest levels of Euro-American governments, but also by the originators of the national economy concept themselves.

Following this, my story suggested that a key task of post-war international lawyers—and the freshly-minted international institutions—was to conserve the supply of—and the sustained access of wealthy First World countries to—essential natural resources, including iron ore, phosphate, and oil. All the while, these conservationist techniques—some of which included vast efforts to eradicate the tsetse fly—both stabilised and delimited visions toward nature and the economy. This movement culminated in the 1949 UNSCCUR. Its organisers saw the conference's purpose as that of finding methods to expand resource supplies for wealthy countries.

Some tried to confront these logics. The organisers of a separate conference—the ITCPN—initially sought to undermine the destructive economic trends that threatened wild places and wild creatures. Central to their claims was the fact that demand for resources were transforming entire ecosystems. Following this logic, some of these preservationists saw the tsetse fly as a blessing, as it impeded the ability to transform wilderness into natural resources. Some participants thought organic agriculture and crop rotation techniques could be used instead of industrial farming, which they feared could impoverish both farmers and the land on which they depended for survival. During conference discussions, however, the ITCPN's participants became compelled to soften their preservationists views in favour of more conservationist ideas. Put simply, they shifted from finding ways to reduce *demand* for resources, toward promoting activities that sought to increase *supply* of those resources. As a consequence, their efforts were successful insofar as they garnered public support for nature protection activities. However, they ended up shoehorning this support toward conservationism. Meanwhile, the ITCPN's proponents ended up undermining the very logics of 'preservation' that they had originally sought to promote.

My story has suggested that this led to the establishment of a number of African national wildlife parks and projects to construction of large dams projects, which became regarded as archetypal conservation techniques. African leaders became persuaded that these projects could help to foster growth of their national economies insofar as they could transform wilderness areas themselves into resources that could generate income from

tourism, and also increase supplies of renewable energy. Added to this, many African leaders believed that these projects could help instil a heightened sense of national identity amongst their peoples. Conservationist logics were thus transmitted—like the tsetse fly's trypanosomiasis—through these international projects. Subsequently, I observed how these projects not only undermined dissenting preservationist stories about nature, but also had often-detrimental effects upon the peoples living adjacent to them.

One such effect of large dams, in particular, was to foster the proliferation of tsetse fly populations in lands resettled by peoples displaced as a result of constructing those dams. Accordingly, in all of this, I revealed how the tsetse fly was both an effect, and symbol, of international law's operation. Building upon this idea—that nature was framed in a way that gave preferences to some peoples and organisms at the detriment of others—the following chapter moves to examine how these patterns continued on through the notion of the 'human environment' that was inaugurated by way of the 1972 United Nations Conference on the Human Environment.

CHAPTER FOUR

ADAPTATIONS OF THE HUMAN ENVIRONMENT

‘The mind, that ocean where each kind
Does straight its own resemblance find;
Yet it creates, transcending these,
Far other worlds, and other seas;
Annihilating all that’s made
To a green thought in a green shade.

— Andrew Marvell, *Gardens* (1681)[409]

Introduction

The anatomy of living organisms is often closely adapted to their immediate environments. Every organism must make continued physiological adjustments to maintain harmony with the conditions they inhabit. This enables them to survive, and thrive. The dromedary camel (*Camelus dromedarius*) is a famous example. Several unique physiological features enable them to thrive in deserts and arid climates. Most prominently, each dromedary has a single hump. This enables them to store fats, which the animal can synthesise into water and energy for sustenance. They also have other features—a second set of eyelashes, nictitating eye membranes, closable nostrils, and wide feet—to help them thrive in sandy environments.[410] This example is pertinent to my story insofar as it helps demonstrate that what we tend to think of as ‘the environment’ actually tends to preference particular interests. More specifically, attempts to foster any specific concept of the environment will invariably promote the interests of some species—or groups—of living organisms over others. In this chapter, I detail the transmutation of nature into a concept of the ‘(human) environment’.

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[409] Andrew Marvell, *The Complete Poems* (London: Penguin, 2005), p. 100.
[410] ‘Arabian Camel’, *National Geographic* (online), available at: <https://www.nationalgeographic.com/animals/mammals/a/arabian-camel/> (last accessed on 23 June 2018).

Seemingly cognisant of biases inherent in the emergence of this concept, one Brazilian delegate speaking at the 1972 United Nations Conference on the Human Environment ('the Stockholm Conference') asked rhetorically: 'for whom—or under what criteria—is the environment to be considered healthy, pleasant, desirable?'. 'If the subject should be an "anaconda", the world should be a swampy forest', he pointed out. However, if the subject in question were a dromedary, the Brazilian delegate added, 'then the destruction of forests and the creation of deserts' may indeed be proceeding 'at too slow a pace'.[411] With this in mind, the question that I seek to elaborate upon in this chapter is for whose benefit the global environmental regime was constructed? Who were the environment's winners and losers?

Clearly, the Stockholm Conference is a seminal event in this story. It was the moment during which the concept of what we call 'the environment' first became recognised in international law. With it, states first pledged themselves to follow 'a system for co-ordinating responses' to shared environmental problems.[412] While conventional historiographies tend to acknowledge this, they ignore international law's legacy in shaping the disciplinary formation of the environment. This is the issue to which I now turn in this chapter. As I argued previously, in Chapter Three, the idea of nature gradually reformed—through international law—to take on different configurations in the post-war period: namely, that of 'conservation'. At that time, the concept of the environment had not yet found common usage. In fact, the term 'environment' only became commonly used to denote 'the natural world or physical surroundings'—especially as 'affected by human activity'—in leading scientific journals, and in mainstream media, during the mid-twentieth century.[413]

This chapter offers an alternative perspective—or rereading—of how this understanding of the environment—as a specific object of regulation—came to be globally recognised within, and through, international law. Specifically, my interest lies in the legal structure, form, content, and parameters shaped during the Stockholm Conference negotiations.

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[411] Quoted in André Aranha Corrêa do Lago, *Stockholm, Rio, Johannesburg: Brazil and the Three United Nations Conferences on the Environment* (Brasília: Fundação Alexandre de Gusmão, 2009), pp. 3-4.
[412] Sands and Peel (2012), p. 22. See also, United Kingdom Foreign and Commonwealth Office, 'Declaration on the Human Environment: Summary', National Archives (United Kingdom), File: FCO 61/930 [Classified: Confidential], p. 2.
[413] 'Environment', *Oxford English Dictionary* (online), available at: <http://www.oed.com/view/Entry/63089?redirectedFrom=environment&> (last accessed on 16 June 2018).

I suggest, in telling this story, that the discipline contributed to making the environment's meaning align with the priorities of the international development movement: particularly its focus on financial, industrial, and techno-scientific referents. This relates to my central argument by showing how the environment is conceptualised, how law sustains it, and how it may also construct—or sustain the operation of—international law in particular way.

By way of structure, Section I investigates how the environment in international law became entwined, at its outset, with First-Third World confrontations. As such, we can see how the environment's seemingly stable form and content actually became grounded with reference to a stable idea of *international development* as its central organising principle. Section II then explores how this created anxieties for a number of actors involved in the negotiations. Subsequently, these actors sought to oppose attempts to organise the nascent global environmental regime around development priorities. I highlight their efforts to realign the environment to a set of competing priorities. The section then investigates the means by which opposing parties and delegates absorbed attempts to reopen, reorient, and reconfigure the environment's boundaries. Finally, Section III interrogates how—during the late-1970s and early-1980s—key specific parameters of the environmental regime became reified through a set of geopolitical events and circumstances. This story, I suggest, accounts for the emergence of a body of prominent international (environmental) principles, constructed by soft law.

I. Developing Grounds

As I observed in previous chapters, by the mid-1960s, an incipient body of international legal principles and institutions—directed at pollutants from specific locales, and on singular issues such protecting wetlands—had formed. Spurred by prominent authors—such as Rachel Carson and Garrett Hardin—their work provoked an educational process through which awareness of the effects of pesticide usage and resource scarcity entered the common vernacular.[414] These legal measures were, however, often inchoate and disjointed. Participants at the UNESCO Biosphere Conference—held in Paris in 1968—

[414] Indeed, the modern environmental movement is often credited as originating from the publication of Rachel Carson, *Silent Spring* (Boston: Houghton Mifflin, 1962). See also, Garret Hardin, 'The tragedy of the commons' (1968) 162 *Science* 1243. See also, Stuart L Udall, *The Quiet Crisis and the Next Generation* (Layton: Peregrine Smith, 1988), p. 27.

agreed, for example, that 'changes have been taking place for a long time'. Nevertheless, the conference's final report observed that 'nations of the world have lacked considered, comprehensive policies for managing the environment'.[415] The Swedish Government offered a response. It sent a memorandum to United Nations Secretary-General U Thant, in May 1968, proposing a global environmental conference.[416] Swedish representatives also sponsored a General Assembly resolution, which raised concerns about an 'accelerating impairment' in the 'quality of the *human environment*'. This impairment was correlated, the resolution suggested, with the rise of 'modern scientific and technological developments'.[417] Following this, member states decided to convene a United Nations Conference on the Human Environment. This conference, to be held in 1972, would aim to provide an international framework for:

> 'intensified action [...] to limit and, where possible, eliminate the impairment of the human environment and in order to protect and improve the natural surroundings in the interest of man'.[418]

Yet, as others have argued, the governments of many newly-decolonised countries held misgivings about this proposed conference.[419] Swayed by views that nature was a source of economic development and nationalistic identity—as we saw in the previous chapter—these infant countries initially resisted any notion that measures to protect the 'human environment' should be internationally regulated. In the first following subsection, I

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[415] UNESCO, *Use and Conservation of the Biosphere: Proceedings of the Intergovernmental Conference of Experts on the Scientific Basis for Rational Use and Conservation of the Resources of the Biosphere* (New York: Department of Public Information, United Nations, 1970). See also, Lynton K Caldwell and Paul S Weiland, *International Environmental Policy: From the Twentieth to the Twenty-First* (Durham: Duke University Press, 1996), p. 54. The term 'biosphere' was first used to describe the biochemical interactions of the Earth system in Vladimir Illich Vernadsky, *The Biosphere* (Göttingen: Copernicus, 1998).

[416] Sverker Åström, 'Explanatory Memorandum from Permanent Mission of Sweden to the United Nations', dated 20 May 1968, cited in Henrik Selin and Björn-Ola Linner, *The Quest for Global Sustainability: International Efforts on Linking Environment and Development*, Working Paper (Cambridge: Centre for International Development at Harvard University Press, 2005), p. 20.

[417] *Problems of the human environment*, GA Res 2398 (XXIII) (1968), UN GAOR, 23rd sess, 1733rd plen mtg, UN Doc A/RES/2398 (XXIII) (3 December 1968), Preamble (emphasis supplied). Caldwell described this resolution as a 'conceptual milestone in the history of the relationship between humans and the environment'. Caldwell (1995), p. 58.

[418] See also, *United Nations Conference on the Human Environment*, GA Res 2581 (XXIV) (1969), UN GAOR, 24th sess, 1834th plen mtg, UN Doc A/RES/2581 (XXIV) (15 December 1969), para. 2 (articulating the conference's purpose as 'a practical means to encourage, and to provide guidelines […] to protect and improve the human environment and to remedy and prevent its impairment').

[419] See generally, Karin Mickelson, 'The Stockholm Conference and the Creation of the South-North Divide in International Environmental Law and Policy', in Shawkat Alam, Sumudu Atapattu, Carmen G Gonzalez and Jona Razzaque, *International Environmental Law and the Global South* (Cambridge: Cambridge University Press, 2015), pp. 109-129.

examine a set of parameters—or argumentative structures—by which some governments sought to mount opposing arguments. I focus upon how—even at the very outset of the negotiations—techno-scientific and industrial desires occupied the forefront of these representatives' minds. Together, these arguments helped to demarcate the scope and meaning of a separate environmental field in international law. In the second subsection, I then turn to consider how conference organisers resolved this impasse. They made the promotion of international development a centrepiece of the Stockholm Conference, a decision that had enduring effects. Put simply, I explore how the environment was configured in terms of the idea of international development.

1.1. Foreclosing an Environmental Space

Even from the outset, some governments regarded environmental problems as exclusively First World concerns, 'the effects of a high per-capita GNP'.[420] The discussions took place at a time during which former colonies were seeking to assert greater sovereignty over their natural resources. Well before the conference's opening session, many proto-Third World representatives had already expressed fears that proposed environmental safeguards could impede their development aspirations. As I foreshadowed in the Chapter Three, the substance of these specific aspirations is the subject of some momentous critical legal literature. Of these, Sundhya Pahuja offers one of the most sophisticated accounts. She claims that it was proto-Third World representatives themselves who emphasised that international development was a necessary remedy for their 'economically backward countries'.[421] This was a strategy, Pahuja reveals, to ensure that those countries' wider national interests would be considered at the global level.[422]

In her 2011 book, *Decolonising International Law: Development, Economic Growth and the Politics of Universality*, Pahuja contends that the international legal separation between the discipline's 'economic' and 'political' spheres—the lineaments of which I described in the previous chapter—had a significant effect. This bifurcation enabled

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[420] Wade Rowland, *The Plot to Save the World: The Life and Times of the Stockholm Conference on the Human Environment* (Toronto: Irwin Clarke, 1973), p. 31.
[421] Statement by Sir Shanmukham Chetty (Indian Delegate before the First Commission), *Proceedings and Documents of the United Nations Monetary and Fiscal Conference: Bretton Woods, New Hampshire, July 1-22, 1944: Volume 2* (Washington DC: United States Government Printing Office, 1948), p. 1180, quoted in Sundhya Pahuja, *Decolonising International Law: Development, Economic Growth and the Politics of Universality* (Cambridge: Cambridge University Press, 2011), p. 42.
[422] Pahuja (2011), p. 42.

members of the proto-Third World to identify themselves as (economically) 'backward'—a condition attributable to imperialism—without contradicting their (political) claims to independent statehood. These governments sought financial assistance from the World Bank and International Monetary Fund. Simultaneously, their representatives continued to assert claims for self-determination and sovereign equality in the political realm, governed by the United Nations. For these representatives, Pahuja observes, the effect of adopting this 'epistemology of the coloniser' was to gain greater recognition for their views and interests within the First World-led Bank and Fund.[423]

Yet, this strategy consigned proto-Third World countries to accepting international development models predicated upon the need for greater capital, industrialism, productivity, institutions, and economic growth.[424] This contributed to a view of reality in which Third World 'modernisation' required principally 'increased savings, growth rates, foreign capital, developing industrial capacity'.[425] This nationalist strategy gained acceptance by First World states, as it maintained the putative objectivity of international law and their normative superiority in the hierarchy of nation-states. It achieved this without resorting to pre-existing ideas of racial or civilisational superiority renounced following the Nazi Holocaust. It also created an 'indisputable hierarchy', atop of which stood the United States and its allies, which apparently represented the 'ultimate form of collective organisation' and 'social evolution'.[426] Such a narrow outlook excluded the possibility that Third World development could be alternatively conceived, not only in economic or material terms, but also as a more holistic project that included broader individual, collective, and cultural endeavours.

In light of this, during the Stockholm Conference's first preparatory session, a high-ranking Nigerian delegate called the environmental discussions merely 'another obstacle in the already handicapped race for material progress'.[427] In his view, like those of many

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[423] Pahuja (2011), p. 80. She writes that although nationalism 'was a powerful force in the anti-colonial struggle', it 'reason[ed] within a framework of knowledge whose representational structure correspond[ed] to the very structure of power nationalist thought [sought] to repudiate'. Ibid 80, quoting Partha Chatterjee, *The Politics of the Governed: Reflections on Popular Politics in Most of the World* (New York: Columbia University Press, 2004), p. 31.

[424] For a more detailed description of what this notion of development entails, see David Trubek and Alvaro Santos, 'Introduction: The Third Moment in Law and Development Theory and the Emergence of a New Critical Practice', in David Trubek and Alvaro Santos (eds), *The New Law and Economic Development: A Critical Appraisal* (Cambridge: Cambridge University Press, 2006), pp. 5-6.

[425] Escobar (2010), p. 83.

[426] Pahuja (2011), p. 37.

[427] Rowland, p. 33 (Adebayo Adedeji for Nigeria).

other Third World representatives, environmentalism would impede Third World development. For example, Jamaican Ambassador Keith Johnson voiced his colleagues' 'lingering fear[s] that Stockholm was merely another ploy by the developed countries to avoid supporting the development revolution'.[428] The Eco Newspaper called it a 'plot by the rich to hang onto wealth', while at the same time 'depriving the poor [of resources] in the name of ecological purity'.[429] Organization for African Unity representatives went further, calling environmentalism an attempt to halt 'the advance of the colored peril'.[430] They maintained—with almost rehearsed unanimity—that priority be given to increasing life expectancies, basic necessities—including food, shelter, clean drinking water, and sanitation—as well as generating employment for its 'dark, poor and hungry masses'.[431]

South American representatives promulgated similar demands. They repeatedly cautioned against channelling resources from industrialisation to environmental protection. Brazilian Ambassador José Augusto de Araújo Castro pointed out, for example, that Third World budgets could not always afford to purchase the 'most advanced technology' available from more industrialised countries for the purpose of reducing environmental harms. Labour-intensive and 'less advanced production' techniques could instead, Castro argued, be an indispensable part of fostering domestic solutions to environmental problems.[432] Castro's attitude exemplified a set of approaches—pioneered by South American scholars—that were known as 'dependency' theories.[433] These were widely popular at the time of the Stockholm Conference, having already been implemented—with varying success—in some East Asian and South American countries. Fundamentally, they were devised in response to 'modernisation' theories, which regarded First World laws, capital, institutions, and societal values as essential preconditions to development. Rejecting these approaches, dependency theories located the causes of Third World impoverishment in First World countries' exploitation

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[428] Keith Johnson, 'A Second Copernican Revolution' (1982) 1 *Uniterra* 4, 4-5. See also, United Kingdom Foreign and Commonwealth Office, Note of Mr Ingham and Mr Wilberforce, 'Environment: Meeting with Mr. Moynihan and Mr. Herter, 17 April 1970, National Archives (United Kingdom), File: FCO 61/927 [Classified: Restricted], para. 2.
[429] 'Third World Ecology', *Stockholm Conference Eco*, 7 June 1972, p. 13.
[430] Claire Sterling, 'World Politics and Pollution Control: Rich and Poor Nations Collide', *Washington Post*, 26 May 1972, p. A24.
[431] Balakrishnan Rajagopal, *International Law from Below: Development, Social Movements and Third World Resistance* (Cambridge: Cambridge University Press, 2003), p. 117.
[432] 'Pollutions fighters checked: UN diplomats hedge … "Growth comes first"', *Evening Standard*, 7 May 1970, National Archives (United Kingdom), File: FCO 61/927.
[433] See generally, Raúl Prebisch, 'Five Stages in My Thinking on Development' in Péter Tamás Bauer, Gerald M Meier and Dudley Seers (eds), *Pioneers in Development* (Oxford: Oxford University Press, 1984), p. 177.

of Third World labour and resources. The theories' proponents argued that this exploitation created both internal and external structural imbalances. Put alternatively, these imbalances originated from outflows of natural resources—from agrarian economies at the 'periphery' of the global order—toward an industrialised 'core' of First World countries, upon which Third World countries were financially and technologically reliant.[434]

The resulting dependency impeded the ability of affected Third World countries to achieve self-sustained economic growth. It also generated acute class relations.[435] Matias Vernengo identifies its essential problem as an 'inability of the periphery to develop an autonomous and dynamic process of technological innovation'. Even foreign capital could not resolve it, because it led only onto a limited transmission of technology, rather than 'the process of innovation itself'.[436] As a remedy, dependency theorists sought to diversify Third World economies away from excessive reliance upon exports of natural resources and agricultural products. In their place, dependency theorists suggested that governments implement policies to incentivise innovation of technological and industrial products. Such policies included what became known as 'import-substitution-industrialisation' ('ISI') policies, which attempted to stimulate domestic innovation. With this, dependency theory proponents attempted to make wholesale changes to affected countries' structures of production, and to the distribution of global power. By the mid-1970s, an 'export-oriented' variant of ISI—based on designing and exporting manufactured goods—was having a recognisable effect in boosting the GNP of some East Asian economies (those famously known later as the 'East-Asian Tigers').[437]

Aligned with this reasoning, some participants felt that attempts to replicate ISI policies could be severely inhibited by efforts to legislate environmental protection measures. They recognised, for instance, that Third World infant industries simply could not develop new technologies, and innovative products, without also generating dangerous

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[434] Ibid.
[435] See generally, Fernando Henrique Cardoso and Enzo Faletto, *Dependency and Development in Latin America* (Marjory Mattingly Urquidi trans, Berkeley: University of California Press, 1979) [trans of: Dependencia y desarrollo en *América* Latina], Ch. 4; Jagdish Bhagwati, *In Defense of Globalization* (New York: Oxford University Press, 2004), pp. 179-180.
[436] Matias Vernengo, 'Technology, Finance and Dependency: Latin American Radical Political Economy in Retrospect' (2006) 38 *Review of Radical Political Economics* 551, 552-553.
[437] Richard Pomfret, *The Age of Equality: The Twentieth Century in Economic Perspective* (Cambridge: Belknap Press, 2011), Ch. 6.

pollutants. In short, juridifying the so-called 'human environment' as an object of international legal regulation was seen by these representatives as a covert strategy for preserving global structures of power, plunder, and privilege. These governments accused industrialised countries of trying to re-establish 'old patterns of colonialism' over their former subjects, all under the guise of promoting pollution controls. Wealthy governments were 'using environmental doomsday predictions as a racist device to keep the non-white third world at a relatively low level of development', some representatives accused, and as 'a neat excuse for the industrialized nations to pull the ladder up behind them'.[438] Abdelkader Dehbi—representing Algeria—said, for example, that his government did not wish to 'sacrifice development on the altar of environment'. He contended that Third World nations' environmental problems emanated from 'centuries of colonial rule that allowed depredation of natural resources', rather than from their development activities.[439] One Brazilian delegate also denounced what he called this 'malicious trend' of fostering a 'pseudo-scientific outlook' in order to 'justify non-development' of the Third World.[440]

Acting upon this rationale of opposing 'non-development', the Brazilian government led a Third World movement to 'boycott the Conference'.[441] Brazilian Ambassador Miguel Ozório de Almeida protested—in a speech to the General Assembly—against the First World's excessively moral, or 'Calvinistic attitude', which he described as positing those countries' rights to 'salvation and perpetuation' at the expense of 'the more numerous underdeveloped peoples'. Ozório argued that Third World peoples were now being asked to now 'stop breeding and encroaching' upon the First World's 'delicious enjoyment of nature and natural resources'.[442] This escalated to such a degree that—by the first Preparatory Committee meetings—the Brazilian government had already united many countries in efforts to undermine the conference preparations. Like other governments—in South Africa, Spain, Iran, and South Korea—the Brazilian government's political legitimacy, and support from influential stakeholders, relied upon maintaining robust

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[438] Rowland (1973), p. 47.
[439] 'Preparatory Committee for Conference on Human Environment concludes debate on progress in continuing activities', UN Press Release HE/111, dated 7 Match 1972, National Archives (United Kingdom) [Classified: Restricted], File: FCO 61/929.
[440] Sérgio Armando Frazão, 'Speech given at the Second Commission', 8 October 1971, quoted in André Aranha Corrêa de Lago, *Stockholm, Rio, Johannesburg: Brazil and the Three United Nations Conferences on the Environment* (Brasília: Fundação Alexandre de Gusmão, 2009), p. 6.
[441] Maurice Strong, 'Stockholm Plus 30, Rio Plus 10: Creating a New Paradigm of Global Governance', in James Gustave Speth (ed), Worlds Apart: Globalization and the Environment (Washington DC: Island Press, 2003), p. 35.
[442] Ozório de Almeida (2003), pp. 3-4.

economic results: ones that were measured almost solely in terms of GNP. In all, these governments argued collectively that environmental restrictions 'should not be allowed to curb economic growth'.[443] Given this—a senior United Nations official admitted—the need to 'harmonize' growth with the 'preservation of a civilized human environment' presented a 'major challenge' for the upcoming Stockholm Conference.[444]

These factors prompted changes in proponents' expectations. In a private discussion with the United Kingdom government, for example, United States representatives 'thought the main problem was to avoid total disaster'. This was because few developing countries were inclined to put 'the environment very high in their "shopping lists"'. Participants agreed that 'a lot of careful thought would have to be given to the phrasing of agenda items, in order to "sell" the work of the conference' to Third World countries. Yet, they concurred, it had to be done 'without appearing to force' those items 'down the throats of unwilling recipients'. The key to achieving Third World engagement, the officials concluded, 'was basically a matter of presentation'.[445] Subsequently, this was the ethos around which the conference's Canadian Secretary-General, Maurice Strong, sought to frame the conference proceedings. Responding to these criticisms, his actions helped shape the environmental realm's meaning, and conceptual boundaries, in an enduring way.

1.2. Finding a 'Libretto'

Prior to his work with the United Nations, Strong had formerly held positions as an oil company and financial management executive. He had also previously directed Canada's international development agency. In this latter role, he became closely familiar with development issues, and well-acquainted with its key diplomatic players.[446] Strong was appointed by member states in December 1970, but only after many governments acknowledged the conference preparations were on the verge of utter disarray. In the

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[443] Terri Aaronson, 'World Priorities' (1972) 14(6) *Environment* 4, 13.
[444] 'Cable EC 114/23 (1-3-3) from Philippe de Seynes (UN Under-Secretary-General for Economic and Social Affairs), enclosing report A/Conf.48/PC/6 of the Preparatory Committee for the 1972 Stockholm Conference', dated 26 June 1970, National Archives (United Kingdom), File: FCO 55/431 [Classified: Restricted].
[445] United Kingdom Foreign and Commonwealth Office (Ingham and Wilberforce), 'Environment: Meeting with Mr. Moynihan and Mr. Herter', 17 April 1970, National Archives (United Kingdom), File: FCO 61/927 [Classified: Restricted], paras. 2-4.
[446] Maurice Strong, *Where on Earth Are We Going?* (Toronto: Alfred Knopf, 2000), Ch. 1.

lament of Uruguayan economist Enrique Iglesias at the time, the conference 'did not have a libretto'.[447]

Early on in his tenure as the Stockholm Conference's Secretary-General, Strong identified that a major cause of disagreements between member states was due to there being no agreed definition of the 'human environment'. So, he set out to formulate his own definition for what he called this 'very subjective and ill-defined concept'.[448] Strong declared that the human environment referred to 'man's activities which, by affecting the natural ecological systems of which he is part, affect his own life and wellbeing'.[449] As such, damage to it threatened 'human life'. This posed an urgent need, Strong claimed, to institute 'a degree of management' upon the environment that was 'unprecedented in the human experience'.[450] Aligned with this task, he also made efforts to narrow the conference's objectives and maximise its relevance for Third World countries. Aware that the conference would fail if Third World countries refused to take part, he sought to accommodate their concerns. As a response, Strong prepared a revised agenda installing international development as the conference's central theme. With these actions, he redefined the concept of the environment, linking it 'directly to the economic development process' of Third World countries.[451]

Yet, some governments reacted with scepticism. Brazilian Ambassador Castro wrote that, despite Strong's 'repeated professions of faith in "development"'—and his apparent 'willingness to "play" politically on two fronts'—Strong remained 'clearly inclined' toward policies 'aimed above all at the preferences of the industrialized World'.[452] The effect of Strong's actions in the day-to-day planning of the conference, Castro claimed, was to stabilise the 'economic gap between developed and developing countries'. Castro feared, as a result, that the conference outcome would be a mere 'enshrinement of

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[447] André Aranha Corrêa de Lago, 'Interview with Enrique Iglesias' (Washington DC, October 2003), quoted in André Aranha Corrêa de Lago, *Stockholm, Rio, Johannesburg: Brazil and the Three United Nations Conferences on the Environment* (Brasília: Fundação Alexandre de Gusmão, 2009), p. 36.
[448] Barbara Ward and René Dubos, *Only One Earth* (Harmondsworth: Penguin, 1972), p. 24; see also, United Nations, *Yearbook of the United Nations 1967-1968* (New York: Department of Public Information, United Nations, 1968), p. 958.
[449] Rowland (1973), p. 29.
[450] Ibid.
[451] André Aranha Corrêa do Lago, 'Interview with Enrique Iglesias' (Washington DC, October 2003), quoted in André Aranha Corrêa do Lago (2009), p. 36. See also, Strong (2000), p. 121.
[452] Quoted in United Kingdom Foreign and Commonwealth Office, 'Telegram 1140 of the New York Mission', 12 November 1970, National Archives (United Kingdom) [Classified: Confidential], File: FCO 61/927.

the status quo'.[453] Notwithstanding these misgivings, Strong quickly convinced many African representatives to accept his revised conference agenda. He remained concerned, however, about its wider acceptability, particularly with South American governments.

Seeking to mediate objections and promote his agenda, Strong convened—with British development economist Barbara Ward—a February 1971 meeting of development economists and practitioners to canvass reactions. Prominent among them was an outspoken critic, Pakistani heterodox economist Mahbub ul Haq, who was at the time Director of Policy Planning at the World Bank. 'It is time', ul Haq emphasised, that 'we stand economic theory on its head and see if we get any better results'.[454] He expressed deep scepticism toward new-found environmental concerns, offering a set of 'devastating and simple' arguments as to why Third World countries should refrain from participating on First World countries' terms. He contended—with support from Gamani Correa (of Sri Lanka) and Enrique Iglesias (of Uruguay)—that:

> 'industrialization had given developed countries disproportionate benefits and huge reservoirs of wealth and at the same time had caused the very environmental problems we were now asking developing countries to join in resolving. The cost of cleaning up the mess, therefore, should be borne by the countries that had caused it in the first place. If they wanted developing countries to go along, they'd have to provide the financial resources to enable them to do so.'[455]

Strong responded with a challenge of his own. He publicly confronted ul Haq to take part in a 'rigorous, objective process of evaluating' the possibility of redefining environmental challenges to serve as 'a new basis for South-North cooperation'.[456] Together, they formed a 27-member panel of development economists and scientists that met at Founex in June 1971. They selected participants from a group of prominent international development practitioners. Many of these participants would come to play further leading roles in crafting development policies and managing international institutions. Yet, the choice of participants led some commentators to criticise the panel as being 'long on

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[453] United Kingdom Foreign and Commonwealth Office, 'Telegram 1552 of the New York Mission', National Archives (United Kingdom) [Classified: Confidential], File: FCO 61/928.
[454] Mahbub ul Haq, *The Poverty Curtain: Choices for the Third World* (New York: Columbia University Press, 1976), p. 34.
[455] Strong (2000), p. 123.
[456] Ibid 124.

economists but short on the ecological side'.[457] Indeed, all had backgrounds either practicing, or having been formally educated, in economics. Regardless of these criticisms, Strong saw the panel as the informal body responsible for formulating the Stockholm Conference's 'policy and intellectual underpinnings'. Their work also engendered a 'rising tide of interest and attention' in the conference process across the world. Consequently, Strong later called convening the panel 'the most important single event' leading up to the Stockholm Conference.[458]

The *Founex Report on Development and Environment* ('Founex Report')[459] recorded the panel's deliberations. It redefined the environment to appear coterminous with development. The report's central theme was that environmental problems ultimately differed, depending upon each country's relative levels of development. Referring to First World countries' environmental problems as 'very largely the outcome of a high level of economic development', the report recognised that Third World environmental problems were 'essentially of a different kind'.[460] Specifically, these problems were seen as emanating from 'the poverty and the very lack of development of their societies'. The report predicted that Third World countries would wish to avoid the 'mistakes and distortions' that had characterised the 'patterns of development' in industrialised societies.[461] With this, the *Founex Report* stressed the need for differentiation between countries' responsibilities with regard to the environment. Yet, the report observed, other problems of the human environment—such as 'poor water, housing, sanitation and nutrition'—could also potentially affect 'the greater mass of mankind'.[462] The report warned that these particular problems were factors that had potential to influence world trade patterns. They could affect the distribution of industries, or the comparative costs of production in different countries. As a consequence, the report indicated that these environmental problems could have significant effects on economic relations.[463]

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[457] See, for example, Peter Stone, *Did We Save the Earth at Stockholm?* (London: Earth Island, 1973), pp. 102-103.
[458] Strong (2000), p. 125.
[459] United Nations, *Founex Report on Development and Environment, Submitted by a Panel of Experts Convened by the Secretary-General of the United Nations Conference on the Human Environment: 4-12 June 1971* (Paris: Mouton, 1972).
[460] Ibid 10.
[461] Ibid.
[462] United Nations, *Development and Environment (Subject Area V): Report by the Secretary-General*, UN Doc A/Conf.48/10 (22 December 1971), Annex I, pp. 3-4.
[463] *Founex Report* (1971), p. 11.

Importantly, the report also stated that environmental concerns 'must not and need not detract' from the 'overriding task of development'. Those concerns, it added, could be 'overcome by the process of development itself'. With these statements, the idea began to take root that international development could actually 'cure' major environmental problems.[464] With this, Strong and ul Huq's panel sought to absorb dissenting arguments that the environment was problematic for Third World development. The report stated, however, that development needed to be expanded beyond the 'objective of economic growth', as measured by the rise in GNP. Panellists recognised that, high growth rates had often been accompanied in many countries by 'increasing unemployment, rising disparities in income', as well as the deterioration of social and cultural conditions'.[465] So, the report called for the need to integrate more environmental objectives into development planning, declaring that these would have 'beneficial impacts' on the economic relations of Third World countries.[466]

Following this, the report recommended that higher environmental standards be designed so as not to reduce aid flows, resource transfers, or trade with Third World countries.[467] It argued that pledging additional aid funding, or compensating for trade losses, were 'necessary steps'—to ensure that environmental measures would 'not lead to major disruptions in international trade'. The report added that these measures could also help restructure Third World investments, production, and export patterns to become more environmentally-friendly. Interestingly, the report also underscored that inflows of foreign capital and 'geographical relocation of productive enterprises'—away from First World countries—could result from higher environmental standards.[468] As we can see, this demonstrates that the *Founex Report* framed environmental concerns almost exclusively with reference to economic imperatives. Its authors—who were principally Strong and ul Haq—identified the environment as 'a critical dimension of successful development'.[469]

Upon its publication, the report had an effect in catalysing greater engagement in the Stockholm Conference process from previously-sceptical governments. Its findings,

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[464] Ibid 15.
[465] Ibid 15-16.
[466] Ibid 16.
[467] Ibid 49.
[468] Ibid.
[469] Katrina Rodgers, 'With the Developing Countries at Founex' (1982) 1 *Uniterra* 6, 6.

André Aranha Corrêa do Lago contends, 'changed the direction' of the negotiations. It led to a recognition of environmental problems' relevance for these governments.[470] The report also led to a 'general recognition' of the need for all countries to 'take part' at Stockholm, irrespective of their 'stage of development'.[471] In Johnson's words, the *Founex Report* helped to offer some resolution—during 'a time of uncertainty' and 'understandable fears'—about what the term 'environment' meant for Third World economies. He recalled that the report allowed a decision to be made to merge the 'development and environment' items in the Conference agenda.[472]

During meeting held in the subsequent months, many previously-reticent governments converged around the *Founex Report's* conclusions. They started to frame their arguments in terms of the report's outcomes. For instance, arguing for the need to recognise differentiated responsibilities between countries, Ozório stated that 'the main environmental responsibility belongs to developed countries'. By contrast, Ozório said that the Third World's main environmental responsibility was 'accelerated economic development itself'. Importantly, he claimed that—over the long term—'the very goals of development become environmental in nature'.[473] The G-77 Ministerial Group endorsed this logic in its November 1971 declaration that no environmental policy 'should adversely affect the flow, terms and criteria of financial assistance' to Third World countries. The G-77 Ministers also agreed that any such policies should 'give rise to new types of unfavourable conditions in their international trade'—including additional non-tariff barriers to foreign markers—or obstruct Third World countries' 'sustained economic development'.[474]

A Brazilian-inspired General Assembly resolution, agreed the following month, observed

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[470] Aranha Corrêa do Lago (2009), p. 57.
[471] K O Kumi (Representative of Ghana), 'Preparatory Committee for Conference on Human Environment concludes debate on progress in continuing activities', UN Press Release HE/111 dated 7 Match 1972, National Archives (United Kingdom), File: FCO 61/929 [Classified: Restricted]. See also, United Kingdom Foreign and Commonwealth Office, 'Note from FB Wheeler (FCO, Science and Technology Department) to R B Dorman (British Embassy, Addis Ababa)', dated 9 February 1972, National Archives (United Kingdom), File: FCO 61/929 [Classified: Restricted].
[472] 'Preparatory Committee for Environment Conference opens session; hears statements by chairman, conference Secretary-General, Begins Debate on Continuing Activities', UN Press Release HE/109, 6 March 1972, National Archives (United Kingdom), File: FCO 61/929 [Classified: Restricted].
[473] Miguel Ozorio de Almeida, 'Speech given at the Regional Latin American Seminar on Development and Environment' (6-11 September 1971), *United Nations Conference on Human Environment: Brazil and the preparation for the Stockholm Conference* (Brasilia: Ministry of External Relations, 1971), pp. 12, 14.
[474] Group-of-77, 'Declaration and Principles of the Action Programme', adopted at Lima on 7 November 1971, Section A.VII.

that Third World countries' environmental problems 'were caused by their lack of economic resources'.[475] The resolution called for the upcoming Stockholm Conference to recognise that 'no environmental policy should adversely affect the present or future development possibilities of the developing countries'.[476] Put simply, it affirmed that the 'burden of the environmental policies' rested with First World countries. These responsibilities could not, the resolution argued, be 'transferred' to Third World countries.[477] This resolution was widely touted as a major achievement. Many observers perceived it as a universal affirmation about the merits of global environmental cooperation.[478] However, almost all First World governments disagreed with its content. Despite this, most of these governments abstained from voting. With the notable exception of the United States and United Kingdom, First World governments chose not to vote against the resolution. This was to ensure that Third World governments would continue participating in the Stockholm Conference process.

Unlike many of its First World allies, both the United Kingdom and United States voted against—rather than abstaining from—the resolution. They were highly concerned about what they saw as the resolution's excessively 'sweeping' linkages between the environment and development. Underlying their positions were fears that such linkages could potentially 'polarise' the Stockholm Conference negotiations into '"developed" and "developing" country camps'.[479] Both governments also rejected any notion that responsibility for pollution resided with First World countries. The United Kingdom, for instance, believed that the conference's focus on development was 'too broad'.[480] Its government also agreed with the concerns of United States representatives that the

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[475] *Development and environment*, GA Res 2849 (XXVI), UN GAOR, 26th sess, 2026th plen mtg, UN Doc A/RES/2849(XXVI) (20 December 1971), Preamble.
[476] Ibid, para. 10.
[477] United Nations, *Report of the Secretary-General to the Third Session of the Preparatory Committee*, UN Doc A/CONF.48/PC.11 (New York: UN, 1971). See also, GA Res 2849 (XXVI) (the resolution was approved with 85 votes in favour, two against, and an astonishing 34 abstentions). See also, United Kingdom Foreign and Commonwealth Office, 'Cable from Sir Colin Crowe (UK Mission New York) to Foreign and Commonwealth Office, Telegram No, 11 Saving, of 12 January 1972, repeated for information Saving to ODA, UKMIS Geneva, Stockholm and Washington', National Archives (United Kingdom), File: FCO 61/929 [Classified: Restricted] ('The Brazilian inspired thesis behind the Resolution maintained that responsibility for pollution and its cure lay with industrialised nations […] Assistance for environmental work in developing countries must be over the 1% aid target.').
[478] Barbara Ward, 'Interview with John Tinker' (1981), cited in John McCormick, *Reclaiming Paradise: The Global Environmental Movement* (Bloomington: Indiana University Press, 1991), p. 102.
[479] United Kingdom Foreign and Commonwealth Office, 'Conference on the Human Environment: FCO ODA Brief on Development and Environment (Subject Area V): Agenda Item 14', 18 April 1972, National Archives (United Kingdom), File: FCO 61/930 [Classified: Restricted].
[480] United Kingdom Foreign and Commonwealth Office, 'FCO brief to Cabinet', National Archives (United Kingdom), File: FCO 61/927 [Classified: Restricted].

Stockholm Conference might turn into 'yet another platform for poor country demands for further economic aid'.[481] Consequently, representatives from both governments were anxious to limit the scope of conference discussions to measures only dealing with harmful pollutants. They sought to limit the possibility that Third World countries could use the conference to open the floodgates for additional financial assistance.[482]

As a strategy to balance these sentiments, Strong commissioned Barbara Ward and Rene Dubos to write a second report in preparation for the Stockholm Conference. The report—published under the title *Only One Earth*—became widely regarded by commentators as the First World countries' response to the *Founex Report*. It warned of threats—from population growth on resource availability—posed by the planet's 'modernizing South'. These, the book highlighted, would 'alter dangerously and perhaps irreversibly', the planet 'natural systems' upon which 'his biological survival depends'.[483] With this observation, Ward and Dubos reiterated claims raised by the Club of Rome's infamous simulation—published in 1972 as the *Limits to Growth* report—that predicted a 'sudden and uncontrollable decline in both population and industrial capacity' caused by the systematic depletion of the world's resources at a rate faster than those resources could be restored.[484]

Ward and Dubos sought input on their manuscript from 152 'scientific and intellectual leaders'. These included among its ranks dominant figures such as the industrialist Club of Rome's founder Aurélio Peccei, British zoologist and civil servant Solly Zuckerman, oil company presidents, chairmen of international chambers of commerce, and other self-proclaimed 'citizens of the world'.[485] Under the influence of these figures, the book held the 'Green Revolution' as an example of successful development.[486] Largely sponsored by the Bank and Ford Foundation, the Green Revolution had sought to reduce world hunger by expanding global crop yields through a range of industrial agriculture

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[481] The Ecologist, 'Introduction: The Ecologist looks at Stockholm' (June 1972) 2(6) *Resurgence & Ecologist* 4, 4.
[482] Ibid.
[483] Ward and Dubos (1972), p. 11.
[484] Donella H Meadows, Dennis L Meadows, Jorgen Randers and William W Behrens, *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind* (New York: Universe Books, 1972). Socialist Second World nations similarly ridiculed any notion of limits to growth, on the basis that it would impede their ideological dreams of an abundant future world order. Strong also shared this 'general agreement that a philosophy of "no growth" was absolutely unacceptable'. See, for example, Stockholm Conference Report, p. 46.
[485] Felicity D Scott, *Outlaw Territories* (Cambridge: MIT Press, 2016), pp. 125-126.
[486] Ibid.

techniques.

Despite this, many programmes implemented under the Green Revolution caused significant, ongoing social harms and transformed vast ecosystems. They used extensive amounts of synthetic fertilisers and chemical pesticides, which reduced soil fertility, depleted aquifers, contaminated surface and ground water, and increased chemical-related illnesses in local human populations.[487] These programmes also replaced diverse wild crops with limited varieties of high-yield monocultures, which reduced ecosystem biodiversity.[488] Studies now suggest that this reduction in the genetic diversity of the world's food supply has lowered the resistance of crops to pests, diseases, and catastrophic climate change.[489] Green Revolution projects are now also widely acknowledged to have promoted ongoing dependency by commodity-exporting countries on industrialised countries and technologies.[490] Meanwhile, their financial benefits also flowed mostly to multinational corporations—such as Monsanto—that had patented, and produced, these new crop varieties as well as the technologies needed to grow them. In all, Ward and Dubos suggested that the emerging environmental regime be confined by the strictures of the existing global economic system.[491] In this way, their recommendations merged with other calls for international law's understanding of the environment to be made consistent with—or sustain—existing formations of global ordering. First World governments welcomed these recommendations.

Ever the strategist, Strong also convinced a number of Third World governments—Afghanistan, Kenya, Swaziland, Turkey, the Philippines, and Burma—to accept help—from predominantly Canadian consultants—to prepare for the conference. These consultants were paid through First World-funded aid programmes. Whether at Strong's direction or not, they issued national reports emphasising connections between the environment and development. More specifically, these reports enumerated—in ways

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[487] See generally David Pimentel, 'Green revolution agriculture and chemical hazards' (1996) 188 *The Science of the Total Environment* (Supplement 1), p. S86; Lori Ann Thrupp, *Linking Biodiversity and Agriculture: Challenges for Sustainable Food Security* (Washington DC: World Resources Institute, 1997), p. 35.
[488] Cary Fowler and Pat Mooney, *Shattering: Food, Politics, and the Loss of Genetic Diversity* (Tucson: University of Arizona Press, 2nd ed, 1996), pp. 75-76.
[489] See generally, ibid 63-81; United Nations Environment Programme and GRID-Arendal, *The Environmental Food Crisis: The Environment's Role in Avering Future Food Crises* (Oslo: Birkeland Trykkeri AS, 2009), pp. 65-76; Gordon Conway, *The Doubly Green Revolution: Food for all in the 21st Century* (London: Penguin, 1997), pp. 86-104;
[490] See, for example, Conway (1997), pp. 86-104.
[491] Ward and Dubos (1972), p. 89.

aligned with the *Founex Report*—economic impacts derived from soil erosion, overgrazing, and urban pollution. The national reports framed these economic issues as 'environmental' concerns. The Philippine report, in particular, compared the country's environment to 'leprosy in an advanced stage', and noted that such a deterioration could 'no longer be ignored'.[492]

Having now received such widespread support—from both First and Third World governments alike—Strong felt confident enough to declare that there was now 'broad consensus on the importance of the problem'. 'Today, the dialogue is truly global in its scope', he pronounced at the Stockholm Conference's final preparatory meeting.[493] His statement signified—for the first time—that all countries had come to recognise—at least in principle—that the human environment was a separate sphere—or object—of international law. Put simply, the environment became imagined as a legal-institutional realm. Yet, it was one that was shaped by—and positioned against—a stable set of developmental concerns, which acted as its referents. Development—understood predominantly in terms of GNP—served as a so-called 'new angle of vision',[494] which diverted the conference's focus. It was installed as the environmental regime's central ordering principle around which the environment's foundational tenets formed.

II. Crafting Law's Environment

In this section, I turn to the question of how international law imagined the environment's internal parameters. These were topics of discussion during the Stockholm Conference itself, which is the subject of this section. I investigate, in the first following subsection, how the efforts of some governments to raise so-called 'political matters'—as falling within the scope of environmental discussions—were consciously relocated to other international fora, or neutralised by promises of additional First World development finance assistance and transfers of technology. Following this, I delve—in the second subsection—into the work of some international organisations and civil society groups in helping to cultivate a vision of the global environment as dependent upon the proliferation of techno-scientific, industrialised, trade-friendly, and market-oriented logics. Finally, in

[492] Rowland (1973), p. 65.
[493] Scott (2016), p. 126.
[494] Barbara Ward, 'Speech to the UN Conference on the Human Environment' (Speech delivered at New Delhi on 6 June 1972), *UNESCO Courier* (January 1973), p. 8.

the third subsection, I explore how coordinated practices by some governments and organisations—to deflect attention onto anti-whaling issues—helped pacify what had previously been the Chinese government's anti-imperialist stance. These actions enabled the representatives to reach consensus upon the internal parameters of the environmental regime.

2.1. Neutralising External Voices

By the Stockholm Conference's opening session, on 5 June 1972, its 27-member preparatory committee had already agreed upon a draft declaration, as well as a lengthy set of technical recommendations. Non-represented countries expressed dismay, however, as the documents had been agreed without canvassing their views. Given this, some delegates tried to reopen debates on key subject matters from the podium at Stockholm. For example, a number of Third World governments iterated their distrust for the conference process, as well as its objectives. Some of them expressed concerns—also raised during the preparatory committee meetings—that the conference was attempting to 'ratify, and even enhance, unequal economic relations and technical dependence'.[495] The governments feared this could mire them 'in poverty forever'.[496] Other representatives raised more incendiary concerns. Among those were issues relating to the exploitative legacies of imperialism, nuclear weapons proliferation, and what some referred to as 'ecocide'.[497] Clearly, the representatives raised an extensive breadth of issues. When 'pressed to its source', said famed biologist Barry Commoner, environmental issues had an 'uncanny way' of bringing into focus the unresolved malaises of a world 'still tragically dominated by poverty, racial conflict, and war'.[498]

With these critiques, the representatives exposed anomalies in Strong's carefully-cultivated environmental vision. In the Ivory Coast's opening statement, for instance, its representative announced his wish that his country actually had more pollution problems, 'in so far as they [were] evidence of industrialization'. Not only were most alleged linkages between pollution and industrial growth 'false and pernicious', he claimed,

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[495] Susanna Hecht and Alexander Cockburn, 'Rhetoric and reality in Rio' (1992) 254(24) *The Nation* 848, 848.
[496] Ibid.
[497] Ibid.
[498] Barry Commoner, 'Motherhood in Stockholm', *Harper's* (June 1972), p. 16.

however, but only growth was capable of overcoming resource scarcity.[499] Speaking with disdain for diplomatic practices—refined over centuries by their European former colonisers—other representatives, particularly those from the African continent, invoked the spectres of imperialism and racial differentiation. The presence of 'the racist government of South Africa and other agents of colonial oppression like the Portuguese', Adebayo Adedeji of Nigeria averred, 'deceives no one'. Adedeji spoke of the hypocrisy of treating 'the environment with concern and consideration', whilst treating the majority of humanity with 'less than human consideration'. The 'acts' and 'pronouncements' of such countries, he emphasised, 'show that human beings themselves mean nothing'.[500]

Similarly, the Libyan Head of Delegation's opening statement argued that the conference's focus should not detract from 'persecution, unjustice [sic] and oppression' of human life. He cited a suite of examples to emphasise the point. These examples included: the plight of Palestinian refugees 'expelled from [their] historical land and its heritage', the 'domination of minorities' in 'areas of Africa', 'racial segregation [and] discrimination' in the United States, 'biological warfare' in Indochina, as well as 'mass destruction, spoiling lands and crops' in the Philippines. The Libyan representative argued that these situations underscored the necessity of addressing broader 'historical and human responsibilities' in environmental discussions.[501] Wilbert Kumalija Chagula of Tanzania offered more examples. He contended that the 'evils of apartheid, racial and colonial oppression' in Africa had 'mercilessly' eroded the resource base. Yet, these had brought economic benefits to 'only a minority' of peoples.[502] Together, these interventions emphasised how conference discussions had become dominated by a narrow range of economic and technical issues. At its expense, were other—more highly politicised—concerns that might otherwise have fallen within the conference's purview.

Also speaking at the conference's opening plenary was Indian Prime Minister Indira Gandhi who—at Strong's insistence—was one of only two attending Heads of State (the other being the Swedish Prime Minister Olof Palme).[503] Her speech opened with a reflection that 'progress' had now 'become synonymous with an assault on nature'.

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[499] Rowland (1973), p. 51.
[500] Adebayo Adedeji, 'Deeds vs. Intentions' (1972) 28(7) *Science and Public Affairs: Bulletin of Atomic Scientists* 53, 53.
[501] Rowland (1973), pp. 51-52.
[502] Wilbert Kumalija Chagula, *Speeches on Development* (Alison McCusker trans, Dar es Salaam: Costech, 1999), p. 181.
[503] Strong (2000), p. 127.

While 'part of nature and dependent on her for every need', she said, '[we] speak constantly about "exploiting" nature'.[504] Yet, she also used her platform to bolster the *Founex Report's* logics. Gandhi also sought to temper the more radical views of those Third World countries for which she claimed to speak. She insisted that conference participants could not 'forget the grim poverty' of majority of the world's peoples.[505] The environment, Gandhi argued, could not be improved 'in conditions of poverty'. In one of her most famous—frequently quoted—statements, she asked '[a]re not poverty and need the greatest polluters?'. Peoples who 'live in or around the jungles' cannot, Gandhi clarified, be prevented from 'poaching and from despoiling the vegetation'. Her argument identified poor peoples through their reliance on subsistence agriculture. She also implied that these techniques were major causes of environmental degradation.

Before seeking to regulate such actions, however, Gandhi claimed that the international community had a duty to 'provide employment and purchasing power for [the] daily necessities [of the world's poor]'.[506] Highlighting historical inequalities, she contended that industrialised countries had achieved 'their present levels of affluence' only through the 'domination over other races and countries, the exploitation of their own masses and own natural resources'.[507] This 'sheer ruthlessness' had enabled industrialised countries to gain an economic 'head start', Gandhi insisted. Despite this argument, she was unwilling to abandon the logic of development. Rather, Gandhi thought it necessary to join other colleagues in aligning the environment's meaning and boundaries with development logic. She saw development as 'man's cardinal interest', which was that of material 'acquisition'.[508] As such, Gandhi proposed that alleviating the plight of poor peoples—whose lives were seemingly 'contaminated at the source'[509]—was achievable through a wider diffusion of finance and technology. Put simply, at the forefront of her mind was a development model based on export-led industrial growth. With efforts to enjoin this with environmental measures, Gandhi thought, the world's 'disinherited majority' might be convinced that environmentalism could 'bring an improvement in their lives'.[510]

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[504] Indira Gandhi, 'The Unfinished Revolution' (1972) 28 *Science and Public Affairs: Bulletin of Atomic Scientists* 35, 35.
[505] Ibid.
[506] Ibid.
[507] Ibid.
[508] Ibid 37.
[509] Ibid 36.
[510] Ibid

Unexpectedly, Swedish Prime Minister Palme's opening address also raised controversial themes. It broached linkages between environmental harm and warfare. These issues had not been previously canvassed by the preparatory committee. Speaking against the background of vast destruction caused during the Vietnam War, which was still ongoing at the time, Palme labelled the United States' 'indiscriminate bombing' and 'large-scale use of bulldozers'—strategies aimed at driving peoples from the land into urban areas—as actions amounting to 'ecocide'. 'We fear', he added, that 'active use of these methods is coupled by a passive resistance to discuss them'. In dramatically undiplomatic terms, he called this 'an outrage'.[511] Naturally, Palme's actions incensed the United States and its military allies. Head of the United States' delegation, Russell Train, rebuked Palme's comments as a 'gratuitous politicising' of environmental discussions. They were 'inappropriate', he claimed, 'for a host government' to make. Then, shifting focus onto more seemingly neutral issues, he added:

> 'I wish to see us work together in a spirit of positive cooperation for development and for global environmental protection. The injection of a highly charged issue by the Prime Minister can only do a disservice to this objective.'[512]

Train's attempt was to carve away what his government considered to be extraneous political issues. He, like the United Kingdom's representatives, sought to shift the conference's focus. The United Kingdom wanted to emphasise matters affecting the 'natural physical environment'—a position detailed in their delegation's Cabinet-approved negotiating mandate—'in order that something useful and concrete emerges' from the conference.[513] They recognised it as 'inevitable that sociological or psychological problems' would be 'brought in to some extent'.[514] The United Kingdom's representatives recognised the most prominent of these problems as those seeking to

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[511] Olaf Palme, 'The Outrage of Ecocide' (1972) 28(7) *Science and Public Affairs: Bulletin of Atomic Scientists* 44, 44. Palme adopted an understanding of ecocide that largely corresponded with Barry Weisberg's definition as 'the premeditated assault of a nation and its resources against the individuals, culture and biological fabric of another country and its environs'. See Barry Weisberg (ed), *Ecocide in Indochina: The Ecology of War* (San Francisco: Canfield, 1970). See also, John Lewallen, *Ecology of Devastation: Indochina* (Baltimore: Penguin, 1971).
[512] Russell E Train, 'Response of Russell E Train, Chairman United States Delegation' (1972) 28(7) *Science and Public Affairs: Bulletin of Atomic Scientists* 45, 45. See also, Gladwin Hill, 'U.S., at U.N. Parley on Environment, Rebukes Sweden for 'Politicizing' Talks', *New York Times*, 8 June 1972, p. 13.
[513] United Kingdom Foreign and Commonwealth Office, 'FCO brief to Cabinet', National Archives (United Kingdom) [Classified: Restricted], File: FCO 61/927, p. 3.
[514] Ibid.

prohibit ecocide, imperialism, apartheid, the atmospheric effects of supersonic flight, human settlements, and nuclear weapons.[515] Yet, the mandate suggested, these problems could not 'in the nature of things be the subject of international regulatory agreements'. As a consequence, the mandate instructed the United Kingdom's delegation to 'ignore [these] socio-cultural issues'. Representatives should 'seek to leave such problems for consideration in some other forum', the mandate stated.[516]

To representatives of the United Kingdom and United States, therefore, discussions of what they called these 'highly political matters' were inherently 'out of place' at the conference.[517] In making this argument, the representatives conveniently ignored that the environment was an unavoidably contested field. Instead, the United Kingdom and United States governments—with the support of delegates from the European Economic Community—attempted to remove contentious issues from environmental discussions, while inserting them into discussions taking place in other United Nations fora and in the Bretton Woods Institutions. The United Kingdom government maintained, for example, that draft recommendations on aid and trade were 'properly issues for other fora such as UNCTAD or GATT'.[518] 'Environmental work was a function of good development planning', emphasised its representatives, which 'should be, and are, taken into consideration by aid donors'. The strategy delimited environmental law's scope. It also expunged many potentially relevant issues, as a supposed means to shield this idea of the environment from any 'contamination' by politically 'toxic' concerns.[519]

Aligned with this stance, the United States' representatives accused governments highlighting these issues of trying to 'wreck the conference'.[520] Meanwhile, the Canadian government—along with many European governments—placated major dissenters by withdrawing previous objections to text calling for more financial and technological assistance to Third World countries. These included Principle 9 of the Stockholm Declaration, which proposed that environmental 'deficiencies' could 'best be remedied

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[515] 'Letter from D M Kitching to T W Keeble', 11 September 1972, National Archives (United Kingdom), File: FCO 61/929 [Classified: Restricted], p. 2.
[516] FCO, 'Brief to Cabinet', p. 3.
[517] FCO, 'Letter from D M Kitching to T W Keeble' (1972), p. 2.
[518] Ibid. See also, United Kingdom Foreign and Commonwealth Office, 'Financial and Institutional Consequences of the Stockholm Conference on the Environment – June 1972: Paper Submitted by the UK', 13 January 1972, National Archives (United Kingdom) [Classified: Unclassified], File: FCO 61/929.
[519] United Kingdom Foreign and Commonwealth Office, 'Letter from D M Kitching to T W Keeble', 11 September 1972, National Archives (United Kingdom) [Classified: Restricted], File: FCO 61/929, p. 4.
[520] Rowland (1973), p. 127.

by accelerated development' through the 'transfer of substantial quantities of financial and technological assistance'. Principle 12 also called for 'additional international technical and financial' resources to be made available to 'preserve and improve the environment'.[521] Several recommendations in the Stockholm Action Plan reinforced these points.[522] In all, these provisions became collateral concessions for the continued participation of many Third World representatives. They also became the Stockholm Conference's main remedies for global environmental problems.

Notwithstanding this, the United States and United Kingdom governments retained their opposition to these resolutions. They voted to abstain—as did representatives from Switzerland and Sweden—on Principles 9 and 12 of the Stockholm Declaration, as well as every Action Plan recommendation pledging additional transfers of finance and technology to Third World countries. Similarly, Japan not only abstained, but also withdrew its text proposals criticising GNP as an appropriate indicator of nation-state progress. Its impetus for this withdrawal was to limit any possibility of negative press coverage against the Japanese government. Ultimately, the votes on financial and technological assistance measures passed easily, in what appeared at the time to be a major G-77 victory.[523] Their result was to carve a space for discussions of these issues to proliferate in international environmental law. Put simply, the environment—as understood in international law—became principally about two factors: firstly, marshalling 'additional' resources and finance to pay for low-polluting technologies, and secondly, compensation for lost revenues as a result of reorienting their affected national economies. These factors took priority over discussions, for example, that might have focused on reducing production and consumption, or alternatively, on achieving a more equitable distribution of the world's resources.

2.2. Harmonising an 'Off-Stage Chorus'

Non-governmental and international organisations also played active roles in cultivating the environmental regime's shape and form. It was always Strong's intention, from the outset of his tenure, to make the Stockholm Conference a 'media-NGO complex'.

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[521] *Stockholm Declaration of the United Nations Conference on the Human Environment*, GA Res 2994 (1972) (XXVII), UN GAOR, 27th sess, 2112th plen mtg, UN Doc A/CONF.48/14 (16 June 1972), Principle 12.
[522] See, particularly, ibid, Recommendation 25(c), 26(a), 45(b)(iv), 56(d), 84, 102(d), 102(k), 108.
[523] Rowland (1973), p. 82.

He thought this would make the conference 'newsworthy and exciting'. Strong feared that, unless an 'off-stage chorus' were present, media agencies 'might not come at all'.[524] He generated a highly choreographed dialogue between governed peoples and their governments. Nevertheless, Strong's press adviser, Peter Stone, recalled how governments wished to limit the 'political consequences' of 'uncontrolled' NGO and public participation. Some governments also expressed concern about the mass migration to Stockholm of what were predominantly Californians, who outnumbered participants from the entire African continent. Measures 'had to be put in place', a United States representative explained, to ensure that the conference did not 'become a highly charged atmosphere of a divisive kind'.[525]

In response, Strong established what he called an 'Environmental Forum'. This was a side-conference designed to host industry groups and NGOs. Its lectures, film screenings, and workshops offered an 'open and unconstrained discussion' of issues, particularly those deemed too politically sensitive for country delegates.[526] Yet, the Environmental Forum also became an institution through which oppositional voices could be regulated, monitored, and contained. An activist group, 'PowWow'—which had earlier established a 'People's Forum', with a view to introducing (radical) issues that had not previously been raised by other participants into the conference discussions—feared that the Environmental Forum might 'confuse things and blur the distinction between the UN Conference […] and the criticism of it'.[527]

Ultimately, PowWow's fears were realised. The task of establishing the Environmental Forum was led by the Scientists' Institute for Public Information. This was a group with a reputation for sponsoring what some referred to as the policies of 'expansionist industrial and military states'.[528] Under the group's direction, the Environmental Forum's events became dictated by multinational corporations—such as Fiat Automobile

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[524] Stone (1973), pp. 89-95.
[525] Barry Weisberg, 'The Browning of Stockholm: America Takes Its Ecology Show Abroad', *Ramparts*, September 1972, p. 34.
[526] Undated press release entitled 'Environmental Forum', quoted in Felicity D Scott, *Outlaw Territories* (Cambridge: MIT Press, 2016), p. 169.
[527] PowWow, *Newsletter* (February 1972), p. 14. See also, Weisberg (1972), p. 35.
[528] 'A Funny Thing Happened to the Environment on its Way to the Forum', *Stockholm Conference Eco*, 14 June 1972, p. 59. See also, Robert J Bazell, 'Human Environment Conference: The Rush for Influence', *Science*, 22 October 1971, pp. 390-391. Commoner invited the OI Committee International—a group of mainly Third World scientists committed to expanding 'traditional concerns' about 'the physical and natural environment' to include its 'socio-economic, political and cultural causes'. See generally, 'Statement of the Purpose of the OI Committee International', undated, p. 2.

and Olivetti—who saw Stockholm as an 'unusual opportunity' to attract 'worldwide visibility' for their products. These companies used the Environmental Forum to promote investment, and for 'mobilising other resources'.[529] Some NGOs made active efforts to align themselves with these companies. Prominent NGO leader, American Russell Brand, whose group—calling itself the 'Life Forum'—had occupied a tented field an hour's commute from the conference centre, saw the group's role in Stockholm as one of 'crowd control'. Even the Chief of Police Operations reported that Brand's Life Forum did not 'intend to cause any disturbances'. Instead, he told media agencies, its members only 'wish[ed] to quiet[en] other people'.[530] Specifically, these other people represented groups with opposing messages: including the Hog Farm's 'voluntary primitivism', Dai Dong's castigation of 'ecocidal war', along with PowWow's grassroots movement.[531] So, although Strong's policy was to integrate these marginalised voices, their integration took place on the dominant actors' terms.

Some international institutions' actions reinforced these orthodoxies. For example, World Bank President Robert McNamara seized upon an opportunity to expand the Bank's role and influence. He gave a plenary address, in which he informed that the Bank had recently established the post of Chief Environmental Advisor. Its role was to 'review and evaluate' all investment projects for their environmental effects. McNamara reported that the Bank had since discovered that 'the recommended safeguards can and have been successfully negotiated and implemented' in every instance.[532] The Bank also distributed a brochure, advertising its successes on environmental issues, at the conference. In one case study, the brochure described how fish populations around the Old City of Dubrovnik had declined in recent years, due to the dumping of municipal and industrial wastes.[533] The Bank had financed the building of the 'Babin Kuk' complex, one of the world's largest tourist resorts at the time. The complex was designed to accommodate over 5,000 people. It was intended to significantly expand the country's tourism industry, a major source of the country's revenue. In what the Bank framed as a boost to its

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[529] Robert Golub and Jo Townsend, 'Malthus, Multinationals and the Club of Rome' (1977) 7 *Social Studies of Science* 201, 217-218.
[530] Weisberg (1972), p. 39.
[531] Ibid 34. As Robert McNamara warned, the demands of these groups had to be integrated, or else their '[r]estlessness will edge toward rebellion, and reason will give way to violence'. See Robert McNamara, 'A Critical Truth' (1972) 28(7) *Bulletin of the Atomic Scientists* 40, 40.
[532] McNamara (1972), p. 40.
[533] World Bank Group, 'The World Bank and the World Environment' (September 1971), available at: <http://documents.worldbank.org/curated/en/639411468740972004/pdf/multi0page.pdf> (last visited 25 October 2016), p. 14.

environmental credentials, it devised plans to minimise the project's effects on adjacent marine ecosystems. The brochure proclaimed:

> 'The plans have been drawn up. Sewer outlets have been designed to keep wastes out of the area, leaving the waters clean for swimming and boating. The Yugoslav government is also planning to modernize – at a cost of $8 million – the sewage system for the entire city of Dubrovnik.'[534]

In other words, the Bank's plan was simply to discharge the sewage farther into the Adriatic Sea. The planned remedial actions would not rectify the already highly-polluted waters. Only by reducing the amount of effluent, or by constructing a wastewater treatment plant—at immense expense—could the Bank achieve that outcome. However, the Bank was unwilling to advocate for—or fund—such policies. The brochure revealed that the Bank's actions were merely intended to protect capital invested in the resort. It framed this objective—of continued economic expansion—as one of environmental protection. A UNIDO report, distributed at the conference, reinforced this perception. The report argued that countries could industrialise without 'seriously damaging the environment', through 'careful planning and management'.[535] The report promulgated the UNIDO's optimism that a 'use of proper technologies' could make possible the avoidance—or mitigation—of damaging environmental effects.

UNIDO's report suggested that highly-industrialised economies—deploying 'sophisticated, capital-intensive processes requiring highly-trained workers'—would 'produce less pollution' than countries with only 'intermediate technologies', which had 'high labour demands, small plant size and less reliance on energy'. This was due to the 'increased efficiency and automation' of advanced technologies. Consequently, the report recommended that all states should prefer large-scale mechanisation over 'small-scale labour-intensive' operations.[536] Its logic sought to foster a vision of a healthy environment as synonymous with the vigorous use of advanced technologies. These technologies could, the UNIDO's logic proposed, provide cheap energy from abundant or renewable sources. Using these, the report suggested, all the mineral resources needed to sustain economic growth could then be extracted from sand or the

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[534] Ibid.
[535] United Nations Industrial Development Organization, *Industrial Development and the Environment* (Vienna: UNIDO, 1972), pp. 19, 25.
[536] Ibid 21.

oceans. The new technologies could then make deserts bloom with food crops synthesised from air and desalinated seawater. Fundamentally, the logic dismissed any notion that radical structural changes to techno-scientific, industrialised societies were either necessary, or possible.

2.3. Bringing a Declaration to Life

By the end of the two-week conference, the United States delegation—which had been instructed to achieve 'a headline a day'[537]—found itself diplomatically outmanoeuvred, isolated, and constantly defending its positions, particularly in relation to its war in Vietnam. The delegation searched for ways to re-establish its credibility.[538] Representatives responded by seeking to deflect the conference's attention onto a set of different issues, particularly anti-whaling. This issue had not been raised before the conference. Yet, it offered a 'perfect opportunity' for the United States' representatives to 'become ecology activists'. Several years earlier, the country's government—like its major European allies—had legislated a nation-wide moratorium on whale hunting. So, domestically, it had 'no stake in the issue'.[539] Indeed, the only countries still carrying on these activities were the Soviet Union[540] and Japan. At the time, both countries happened to be the United States' main economic rivals.

Most NGOs supported the United States' anti-whaling efforts. The Life Forum and Hog Farm organised a number of events—most notably 'Whale Night' and the 'Anti-Whaling March'—backing this cause. Paul Ehrlich credited these events as having 'the greatest impact' on the conference's official proceedings. Strong even appeared as a 'special

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[537] Rowland (1973), p. 124.
[538] Scott (2016), pp. 156-157.
[539] Weisberg (1972), p. 35.
[540] The Soviet Union and most Eastern European countries boycotted the Stockholm Conference on account of West Germany's refusal to accept participation by East Germany. Nonetheless, their attendance is unlikely to have significantly influenced the outcomes of the conference. They participated in all of the preparatory meetings, in which their interventions were primarily directed toward highlighting the ecological effects of capitalism, and proposing the socialist model as a more sustainable solution. Their nationals were also working within the Conference Secretariat. Moreover, in an effort to reduce the impact of their non-participation at the conference itself, Maurice Strong also met with the Soviet Union's Ambassador to Sweden on every morning of the conference to brief him on the forthcoming day's discussions. Consequently, they did not reject the declaration, but merely abstained from voting on it during the subsequent General Assembly session. Some Australian diplomats later recalled that: 'The centrally planned nations have played only a peripheral role in that, while preferring to rest behind a line that the problems are a result of colonisation for which they had no responsibility, they support the South in voting but are reluctant to be drawn into commitments'. See Report from the Australian Senate Standing Committee on Foreign Affairs and Defence (1980), p. 12.

guest' at these events. This bolstered Strong's pluralist image, and his claim to be engaging with marginalised groups.[541] At the end of the conference, the United States sponsored—and comfortably passed—a resolution for a '10-year moratorium on commercial whaling'.[542] Yet, this outcome did not endure for long. The International Whaling Commission's members rejected the moratorium only 20 days after the conference. At a private meeting, scientists from Norway, Iceland, and Panama voted against the moratorium, reversing positions that their governments had voted for in Stockholm. Canadian, Danish, and French scientists also decided to abstain on this later occasion, rather than vote for it.[543]

Having put complex measures in place to install a particular vision of the environment—dependent on financial flows, technology transfers, and now anti-whaling—only a final obstacle remained. Midway through the conference, on 10 June 1972, the delegation from the Peoples' Republic of China ('PRC') had tabled divisive amendments to the draft text.[544] It lambasted the United States governments' 'imperialism' in the Indo-Chinese region. Having only recently emerged from decades of diplomatic exile—which started from the 1949 Chinese Communist Revolution—the Stockholm Conference was the PRC's first international summit since its admission to the United Nations in October 1971.[545] Its government in Beijing was widely seen as trying to assert its new voice in global affairs. Wade Rowland describes that few foreigners had experience dealing with Chinese diplomats.[546] The PRC had not yet been United Nations members during the Preparatory Committee process, and had not participated in drafting the conference declaration. On this rationale, the 31-member Chinese delegation appealed for an opportunity to discuss the draft declaration.[547]

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[541] Harold Gilliam, 'Eco-Trips at Hog Farm', *San Francisco Chronicle*, 14 June 1972.
[542] With the exception of Japan, the countries voting against the resolution were South Africa and Portugal (both of which used their votes to protest against other countries' hostility towards apartheid and colonial policies in Africa, respectively). The Soviet Union, the other major whaling nation, boycotted the conference following East Germany's exclusion from it. *Stockholm Declaration* (1972), Recommendation 33.
[543] Results of this vote were leaked to the media by Russell Train (representing the United States). See Rowland (1973), p. 125.
[544] Ibid 127.
[545] *Restoration of the Lawful Rights of the People's Republic of China in the United Nations*, GA Res 2758 (XXVI), UN GAOR, 26th sess, 1976th plen mtg, UN Doc A/RES/2758 (XXVI) (25 October 1971).
[546] Rowland (1973), p. 128.
[547] Ibid.

Tang Ke—the head of its delegation—made efforts to reopen the environment's meaning. He lambasted the draft declaration for failing to draw attention to what he identified as the main causes of environmental harms: 'imperialist plunder' of Third World resources, and the First World's military 'aggression' across the globe.[548] If the conference were to persist in promulgating clauses unacceptable to his government, he said firmly, the PRC would not participate in voting.[549] He then forced, and won, a unanimous vote to have an all-country working group redraft the entire Stockholm Declaration. Chinese representatives also prepared a 'ten-point plan', which they then leaked to the *Eco* newspaper. In this plan, the PRC's government proclaimed the need to combine 'social progress' with 'industrious labour' in order to 'advance science and technology'.[550] This was, the plan stated, essential for 'continuous improvement' of the human environment.[551] On this basis, the PRC argued that 'advanced scientific technology' should be 'offered without compensation' to Third World countries.[552]

Predictably, many participants and observers initially reacted by fearing that these PRC actions would derail the conference, by making a consensus agreement impossible to achieve.[553] It quickly became clear after private meetings between delegates, however, that the PRC plan—once stripped of its more polemic prose—was almost substantively identical to the existing draft declaration. These included the PRC's demands relating to states' responsibility not to pollute, compensation for export losses caused by environmental regulations, financial aid, higher prices for primary commodities, and the need for consultation on policies with prospective transnational environmental effects.[554] Having come to this realisation, the conference participants largely returned to their previous discussions, which continued until the conference's final session. In this final session, the chair—wishing to bring the proceedings to a speedy end—suddenly announced consensus on the draft declaration. Yet, in doing so, he ignored the PRC's objections over the removal of text that its representatives had sought to include on the issue of imperialism and on prohibiting nuclear testing. An argument between Tang and

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[548] Ibid.
[549] Ibid.
[550] Chinese Foreign Ministry, 'China's Stand on the Question of Human Environment', 12 June 1972, available at <https://www.marxists.org/subject/china/peking-review/1972/PR1972-24.pdf> (last accessed on 6 July 2018), para. 308.
[551] Ibid, para. 3.
[552] *Recommendations of Principle of the Chinese Delegation Concerning the Declaration on Human Environment*, UN Doc A/CONF.48/WG.1/CHP.18/Add.3 (12 June 1972), para. 6.
[553] Rowland (1973), p. 127.
[554] *Recommendations of Principle of the Chinese Delegation* (1972), paras. 5-6.

the chair continued for nearly fifteen minutes. During this time, the PRC representatives grew increasingly isolated and humiliated.[555]

The United States government, still seeking to redirect the conference's focus away from its own negative publicity, saw this as an opportunity to accuse Chinese representatives of trying to 'wreck the declaration'. Given the Chinese delegation's intransigence, Train then said, no agreement at Stockholm was possible. As an alternative, Train asked that the entire draft declaration be referred to the United Nations General Assembly.[556] His hopes, in this regard, aligned with those of many other major industrial powers in preferring fewer—or, at least, more diluted—substantive provisions. Sensing disaster, Strong frantically persuaded the chair to adjourn the meeting for private consultations. The chair refused, prompting Strong into yet another forceful act: secretly instructing an aide to unplug the interpreting device. There was then no choice but to adjourn for 'repairs'.[557] This allowed for informal discussions to take place among delegates on how to proceed. It helped to ease tensions, during which representatives from 113 countries physically converged upon the Chinese delegates, pleading them to withdraw the objections.[558] Following this, parties reached a consensus adopting the declaration, to huge 'acclamation', but one that remained 'subject to reservations and observations'.[559]

As a result, the United Kingdom Foreign Office reported, the Stockholm Declaration 'did not work out quite as had been anticipated'.[560] The linkages between development and environmental took centre stage: with Principles 8, 11, and 15 making this connection explicit, and Principle 9 stating that ecological degradation was 'generated by the conditions of under-development'. Further, Principles 12 to 14 called for 'an integrated and coordinated approach to development planning', for the purposes of achieving a 'more rational management of resources and thus to improve the environment'. Yet, as I have contended, arrangements on finance and technology also became major elements of the declaration's vision of the environmental regime. References to trade, industrial growth, and anti-whaling became other prominent features of the regime.[561]

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[555] 'Much Pollution Work for China, Official Says', *The Globe and Mail*, 6 June 1972.
[556] Ibid.
[557] Rowland (1973), p. 128.
[558] Ibid.
[559] United Nations, *Report of the United Nations Conference on the Human Environment: Stockholm, 5-16 June 1972*, UN Doc A/CONF.48/14/Rev.1 (1973), para. 332.
[560] UK FCO, 'Declaration on the Human Environment: Summary' (1972), p. 2.
[561] Ibid.

In place of these features, as I have illustrated, a number of competing issues became denigrated or trivialised. These were arguments raised principally by actors seeking to not only aspirate other pressing issues of the day, but also to reject the dominant socio-political arrangements of the global order. As we saw, these included demands by some governments to remedy the ongoing effects of imperialism, the plunder of resources, environmental harms caused by supersonic flight, resettling peoples displaced by natural disasters, prohibiting war, ecocide, and nuclear weapons, as well as discussing alternative metrics to GDP as proxies for human wellbeing. Some civil society groups also sought to promote alternative approaches—such as voluntary primitivism and self-sufficiency—to cure threats of impending 'limits to growth' and 'population explosions'. A UNEP review of the Stockholm Conference recalled that these potentially relevant—yet competing—ideas of the environment were persistently dismissed by the conference organisers. They were widely perceived as being of no great interest to those faced with 'poverty, hunger, disease and survival'.[562] Ultimately, the United Nations General Assembly overwhelmingly affirmed these arrangements—as its Resolution 2994—on 15 December 1972.[563] In all, they set international law's vision of the environment on a familiar course.

III. Safeguarding the Regime

The Stockholm Declaration inaugurated an environmental field, and regulatory object, within contemporary international law. Nonetheless, its outcome immediately prompted criticism from many observers. Commoner argued, for instance, that governments had merely agreed to 'monitor pollution' through enhanced technologies, instead of devising policies that actually 'produced no pollution'.[564] Replicating these carefully-engineered arrangements, however, the following decade witnessed a vast proliferation of international environmental laws and regulatory instruments. These included treaties dedicated to the prevention of the dumping waste at sea,[565] restricting pollution from

[562] United Nations Environment Programme, *Review of the Areas of Environment and Development and Environmental Management: UNEP Report No. 3* (Nairobi: UNEP, 1978), p. 6.
[563] The vote was 112-0 (with 10 abstentions from the Soviet bloc). See GA Res 2994 (XXVII) (1972).
[564] Barry Commoner, 'A Reporter at Large: the Environment', *New Yorker*, 15 June 1987.
[565] *Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter*, opened for signature on 29 December 1972 (entered into force on 30 August 1975); *Convention on the Conservation of Migratory Species of Wild Animals*, opened for signature on 23 June 1979 (entered into force on 1 November 1983).

ships,[566] protection of endangered and migratory species,[567] the protection of wetlands[568] and habitats,[569] as well as the prevention of transboundary air pollution.[570]

Fundamentally, these instruments—like the Stockholm Declaration—sought to safeguard an underlying teleology of economic, industrial, and technological growth. In this regard, I argue, the proliferation of environmental instruments during this era served a specific agenda. The first of the following subsections examines how a number of geopolitical events, following the Stockholm Conference, sought to reorient the emerging environmental regime towards better addressing resource distribution issues. Facing these threats to a vision of the environment inscribed by the Stockholm Declaration, the second subsection below explores how powerful states sought to stabilise the environment's parameters agreed at Stockholm. More specifically, I consider how those states put into place regulatory measures ensuring that environmental instruments would not conflict with—and would perhaps even expand—their economic interests.

3.1. Geopolitical Reconfigurations

Major geopolitical events occurred within a year of the Stockholm Conference. Two significant events were: firstly, United States President Nixon's 1971 abandonment of the 'gold standard'; and secondly, the 1973 oil crisis, which resulted from an oil embargo by the Organization of Arab Petroleum Exporting Countries ('OAPECs') in retaliation for several oil importing nations' efforts to supply arms to Israel during the Yom Kippur War. The oil crisis triggered a 70 per cent rise in oil prices. It led to a period of economic stagnation and high inflation (a combination known as 'stagflation').[571] Facing such challenges, governments saw the codification of international legal

[566] *International Convention for the Prevention of Pollution From Ships*, opened for signature on 17 February 1973 (entered into force on 2 October 1983).
[567] *Convention on International Trade in Endangered Species of Wild Fauna and Flora*, opened for signature on 3 March 1973 (entered into force on 1 July 1975).
[568] *The Convention on Wetlands of International Importance, especially as Waterfowl Habitat*, opened for signature on 2 February 1971 (entered into force on 21 December 1975) ['Ramsar Convention'].
[569] *Berne Convention on the Conservation of European Wildlife and Natural Habitats*, opened for signature on 19 September 1979 (entered into force on 1 June 1982).
[570] *Convention on Long-Range Transboundary Air Pollution*, opened for signature on 13 November 1979 (entered into force on 16 March 1975).
[571] See generally, Jennifer Clapp and Eric Helleiner, 'International political economy and the environment: back to the basics?' (2012) 88(3) *International Affairs* 485, 486.

instruments on environmental issues as comparatively lower priorities than ensuring the continued access to key resources.

The 1973 oil crisis also imbued OAPEC governments with a new sense of commodity power.[572] Resource-rich governments in the Third World became aware of the possibilities for using their vast natural resource endowments as instruments to gain 'better bargaining positions' in international negotiations. These G-77 countries intensified demands for a more equitable global economic order. This led to turbulent debates within the United Nations General Assembly.[573] Following this, many governments of countries dependent on resource imports grew increasingly concerned about securing uninterrupted energy supplies. They made efforts to limit their dependence on imported energy and raw materials.[574] Regardless, G-77 countries successfully promoted the famous May 1974 General Assembly Declaration, calling for the establishment of a 'New International Economic Order' ('NIEO').[575] The declaration's text reflected influences from dependency and neo-colonialist theorists.[576] Governments of these countries used natural resources strategically as nodes in their demands for a NIEO. They jointly declared that:

> 'pre-emption by the rich of a disproportionate share of key resources conflicts directly with the longer-term interests of the poor by impairing their ultimate access to resources necessary to their development and by increasing their cost. All the more reason for creating a new system of evaluating resources which takes into account the benefits and burdens for the developing countries.'[577]

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[572] The crisis started on 16 October 1973, when members of the Organization of Arab Petroleum Exporting Countries ('OAPEC') declared an oil embargo in response to the United States' and Western Europe's support of Israel during the 1973 Yom Kippur War. Given the inelasticity of oil demand (meaning that it remains relatively unaffected by increases in oil prices), OAPEC members used their collective leverage over world oil supplies to increase their oil revenues. Prices increased almost immediately from US$3 per barrel to over US$12 per barrel. Following this, oil prices continued to rise until 1986. See generally, Daniel Yergin, *The Prize: The Epic Quest for Oil, Money, and Power* (New York: Simon and Schuster, 2008), pp. 587-597.

[573] Joan E Spero, *The Politics of International Economic Relations* (New York: St Martin's Press, 1985), pp. 293-342. See also, McCormick (1991), p. 152.

[574] See, for example, Yergin, pp. 587-597.

[575] *Declaration for the Establishment of a New International Economic Order*, GA Res 3201, 29th sess, 2229th plen mtg, UN Doc A/RES/S-6/3201 (1 May 1974). Similarly, these same states adopted a *Charter of Economic Rights and Duties of States*, GA Res 3281(XXIX), 29th sess, 2315th plen mtg, UN Doc A/RES/29/3281 (12 December 1974).

[576] Ibid, para. 4(p). See also, Craig Murphy, *The Emergence of the NIEO Ideology* (Boulder: Westview Press, 1984), p. 92.

[577] *The Cocoyoc Declaration*, adopted by participants of the UNEP-UNCTAD Symposium on 'Patterns of Resource, Environment, and Development Strategies', held at Cocoyoc from 8 to 23 October 1974,

Even before the Stockholm Conference, states had already made abundantly clear—during negotiation of the 1971 Ramsar Convention on Wetlands—that they would not agree terms that could infringe their sovereign rights to exploit their own natural resources. It was, therefore, 'out of the question', they concurred, 'to draw up a convention prohibiting absolute change in the ecological status of wetlands, backed by mandatory sanctions'.[578] As a result, the Ramsar Convention contained only vague—or vacuous—obligations. Its signatories intended that the convention's substantive detail would only be subsequently agreed, and included as annexes, in future meetings. For example, parties agreed to 'formulate and implement their planning so as to promote […] as far as is possible the wise use of wetlands in their territory'.[579] The wetlands over which the convention would apply had to be voluntarily listed by the countries themselves. While calling for the 'wise use' of protected wetlands, the concept was not clearly defined in the convention. Countries had duties merely to 'promote' the concept, and then only 'as far as possible'. These weak prescriptions, the IUCN observed, were 'dangerous and to be avoided because they permit the illusion that problems are being tackled when in fact they are not'.[580]

Soon after the 1973 oil crisis and NIEO declaration, the United Nations Environment Programme ('UNEP') and the United Nations Conference on Trade and Development ('UNCTAD') convened an October 1974 joint symposium in Cocoyoc. Chaired by Barbara Ward, participants discussed the implications of 'Patterns of Resource Use, Environment, and Development Strategies'. Echoing the *Founex Report's* earlier frustrations, the Cocoyoc Declaration expressed outrage. While 30 years had, by this time, passed since the United Nations Charter's promise of a new international order, it had now 'reached a critical turning point'. 'Its hopes of creating a better life for the whole human family', the declaration declared, 'have been largely frustrated'. By contrast, the number of 'hungry, sick, shelterless and illiterate' peoples had risen since the United Nations was established. At the same time, accelerating environmental degradation

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reproduced in 'The Cocoyoc Declaration: A call for the Reform of the International Economic Order' (1975) 31(3) *Bulletin of the Atomic Scientists* 6, 7.

[578] *Ramsar Convention on Wetlands*: *Final Act and Summary Record*, in E Carp (ed), *Proceedings: International Conference on the Conservation fo Wetland and Waterfowl, Ramsar, Iran, 30 January – 3 February 1971* (Slimbridge: International Wildfowl Research Bureau, 1972).

[579] Ibid, Article 3(1).

[580] IUCN (ed), *World Conservation Strategy: Living Resource Conservation for Sustainable Development* (Gland: IUCN-UNEP-WWF, 1980), p. 52.

brought into question whether the 'outer limits' of the earth's physical integrity might be at risk. Conference participants—who served in their individual capacities—concluded that it was biophysically impossible to satisfy the 'inner limit' of 'fundamental human needs'.[581]

This conceptual separation between 'inner' and 'outer' limits was the grounding upon which the declaration called for a 'new system'. This new system was framed as one that met human needs, while simultaneously operating within environmental constraints. The declaration enumerated three requirements of this new system. Firstly, it emphasised a need to 'redefine the whole purpose of development' to better attenuate the system to disparities in the distribution of basic needs between, and within, countries. Secondly, the declaration underscored a need for peoples to generate 'their own way[s] of life'. Concomitantly, it implored governments to recognise multiple 'roads of development'. In doing so, the declaration explicitly rejected 'efforts to imitate the historical model of [First World] countries'. Finally, the Cocoyoc Declaration highlighted a need to increase 'national self-reliance'. This meant relying primarily on each country's 'own resources, human and natural'. To this end, the declaration spurned 'exploitative trade patterns', which it stated would deprive other countries of their resources.[582] In all, the declaration offered a set of alternative visions with regard to the environment. If implemented, these may have led to a different environmental regime in international law, namely one that reflected a 'harmonized cooperative world, in which each part is a centre, living at the expense of nobody else, in partnership with nature and in solidarity with future generations'.[583]

Yet, some governments rapidly dismissed the conference's recommendations. For example, the United States 'reject[ed] the [d]eclaration entirely'.[584] Despite this, some of the declaration's main themes endured. Its view, that global inequality and environmental harms should be adjoined, gained some support. For instance, a 1976 UNEP Executive Director's report reaffirmed the Cocoyoc Declaration's argument that the worst use of the environment was occurring 'at the two extremes of the scale of

[581] *The Cocoyoc Declaration* (1975), p. 6.
[582] Ibid 8-9.
[583] Ibid 9.
[584] Johan Galtung, 'The Cocoyoc Declaration', 29 March 2010, *Transcend Media Service*, <https://www.transcend.org/tms/2010/03/the-cocoyoc-declaration> (Last accessed on 3 September 2016).

wealth'.[585] Indeed, these ostensible links between environmental and global distributive issues were raised so frequently in some circles that—at the fourth session of the UNEP Governing Council in 1976—several delegations questioned the need, felt by the UNEP secretariat, to defend such purportedly self-evident interconnections. The ideas were 'well understood and well established', they protested. They could benefit from restatement, participants claimed, but 'no further elaboration' was necessary.[586]

3.2. Selective Regulation

During the late-1970s, the United States and United Kingdom governments began to drive different approaches toward global environmental protection. The Thatcher Government and Reagan Administration launched infamous 'deregulation' policies in the United Kingdom and United States. These were inspired by Friedrich Hayek's theories of '*laissez-faire*' neo-classical economics.[587] The theories posited that markets—following what were supposedly self-evident principles of demand and supply—would give rise to the most efficient possible allocation of scarce resources. Hayek predicted that unfettered market forces would also stimulate economic growth. This would 'trickle down'—through all levels of society—creating jobs, raising productivity and wages, and reducing commodity prices. Hayek also thought that unconstrained market forces could unleash unprecedented techno-scientific innovation.[588] Put alternatively, many neo-classical economic theories proclaimed that markets were self-regulating, provided that they were deregulated. Putting this fact aside, those implementing these logics tended to ignore the fact that well-functioning markets inherently rely upon some form of government regulation to both establish, and maintain, those markets.[589]

For example, the Reagan and Thatcher governments sought to scale back regulations, public ownership, and social welfare schemes.[590] With this, they sought to limit any market distortions: particularly those associated with environmental protection.

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[585] United Nations Environment Programme, *Report of the Governing Council of the United Nations Environment Programme: Fourth Session, 30 March–14 April 1976* (Nairobi: UNEP, 1976).
[586] Ibid.
[587] See, for example, John Ranelagh, *Thatcher's People: An Insider's Account of the Politics, the Power, and the Personalities* (London: Fontana, 1992), p. ix; Martin Anderson, *Revolution* (San Diego: Harcourt Brace Jovanovich, 1988), p. 164.
[588] Ibid.
[589] For a prominent neo-classical economist who acknowledges this point, however, see Hernando de Soto, *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else* (London: Bantam, 2000), Ch. 6.
[590] Ranelagh (1992), p. x; Anderson (1988), p. 165

Their domestic policies sought to reverse environmental regulations, or amend them in ways that would not conflict with the operation of markets. Agreeing robust environmental treaties—such as those aimed at reducing air and marine pollution, or protecting endangered animals—were not seen as high priorities. President Reagan's disregard, in particular, was outlined in his acceptance speech to the 1980 Republican Party Convention, during which he declared, 'the economic prosperity of our people is a fundamental part of our environment'.[591] His Cabinet appointments of James Watt (as Secretary of the Interior), and Anne Gorsuch (as Administrator of the Environmental Protection Agency)—both of whom were hostile to much of the environmental legislation they were responsible for administering—solidified Reagan's disdain towards environmental policies. Such was Watt's antipathy to radical environmental movements, that he infamously suggested in 1990 that if 'troubles with environmentalists' could not be resolved 'in the jury box or the ballot box', then 'perhaps the cartridge box should be used'.[592]

Consequently, the United States and United Kingdom governments resisted attempts to codify international laws relating to the environment. They framed environmental measures as both harmful to markets, and achievable through economic growth. Implementing this logic, they imposed strict cost-benefit standards. These standards required that all new policies lead to net benefits, which were measured in terms of economic indicators.[593] Evidently, many proposed laws and policies failed these criteria. Instruments passing its threshold—including those agreements outlined at the beginning of this section—were carefully designed to stimulate economic benefits: whether by enhancing financial flows, or through techno-scientific innovation. These agreements, therefore, adhered to a dominant model of environmentalism ratified at Stockholm. At the same time, the agreements disregarded the claims of more radical environmental movements. Ultimately, in what was a significant moment, neither of the world's two strongest economies ratified any environmental agreements that fell afoul of these criteria.

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[591] Ronald Reagan, *Address Accepting the Presidential Nomination at the Republican National Convention* (Speech delivered at Detroit, 17 July 1980), available at <http://www.presidency.ucsb.edu/ws/?pid=25970> (last visited 30 October 2016).
[592] Quoted in Mark Dowie, *Losing Ground: American Environmentalism at the Close of the Twentieth Century* (Cambridge: MIT Press, 1995), p. 97.
[593] Ranleigh (1992), p. 64; Anderson (1988), p. 165.

The environment's framing with reference to economic factors was so apparently self-evident, in fact, that some economic institutions did not even feel the need to engage with environmental issues at all. For example, the General Agreement on Tariffs and Trade ('GATT') established a 'Group on Environmental Measures and International Trade' in 1971, prior to the Stockholm Conference. Yet, that group did not meet for the first time until 1991.[594] This was in contrast to trade officials' widely-raised fears, before the conference, that environmental protection could become used to justify unilateral trade restrictions. In an added move, some environmental NGOs—such as the Environmental Defense Fund, the Nature Conservancy, and the World Wildlife Fund—diluted (or at least shaped) their activities to align with those of fossil fuel companies and highly-polluting industry groups. These were tactics, Naomi Klein reveals, intended to secure funding and to gain more influence in government policy-making.[595]

Meanwhile, one of the Stockholm Conference's most celebrated successes was its creation of UNEP. However, cautious of any new superimposed coordination of their work—and influenced by Reagan and Thatcher's deregulation policies—other international institutions repeatedly resisted attempts to strengthen UNEP's mandate. Clashing again upon definitions of the environment, the institutions underscored that the environment was 'not a separate entity requiring its own operational body but a cross-cutting theme'.[596] As such, member states left UNEP with responsibility for all issues within the international environmental 'sphere'. Yet, they ensured restrictions upon the institution's finances and status, so as not to encroach upon the economic interests of other governments, or the mandates of other United Nations agencies.[597]

With these sensitivities in mind, Strong—who was by now Head of UNEP—acting in conjunction with UNEP's Governing Council, carefully ensured that the institution's activities would not conflict with those of other, more established bodies.[598] Together, they also diluted UNEP's powers: making it a United Nations 'programme',[599] rather than as a full United Nations specialised agency. Years later, UNEP's minimal

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[594] McCormick (1991), p. 181.
[595] See, for example, Naomi Klein, *This Changes Everything: Capitalism vs. The Climate* (Toronto: Simon & Schuster, 2014), Ch. 6.
[596] Martin W Holdgate, 'UNEP: Some Personal Thoughts' (March 1984) *Mazingira* 17, 20.
[597] Konrad von Moltke, 'Why UNEP Matters' (1996) *Green Globe Yearbook* 55.
[598] Ibid.
[599] *Institutional and financial arrangements for international environmental cooperation*, GA Res 2997 (XXVII), UN GAOR, 27th sess, 2112th mtg, UN Doc A/ (15 December 1972) s II, para 1.

effectiveness was attributed by many to these restrictive powers, mandate, and budget.[600] As Former UNDP Administrator James Speth described it, UNEP was made a 'peanut-sized UN agency tucked away in Nairobi' whose function was only to 'stimulate and coordinate' the work of 'larger and more important agencies'.[601]

These factors brought about only a limited number of international instruments, during the 1980s, directed at addressing environmental issues. This era was punctuated by single-issue international environmental agreements: most notably, the Vienna Convention for the Protection of the Ozone Layer, and its (the 'Montreal Protocol'),[602] and the United Nations Convention on the Law of the Sea ('UNCLOS').[603] Yet, the content of these few instruments were carefully engineered to align with familiar logics. For example, UNCLOS's core policies were intrinsically forged upon the principles of 'sovereignty, property rights and rational bargaining'.[604] The benefits of its content—which included rules aimed at enclosing sovereign maritime boundaries and conserving fish stocks—were projected, in financial terms, to grossly exceed any regulatory costs.[605] Notwithstanding this, the majority of the UNCLOS treaty simply codified existing custom and was, therefore, relatively uncontroversial.

Similarly, the Montreal Protocol—which was seen by even some radical commentators as one of international law's few successes with regard to the environment—was agreed, in large part, as a means for enhancing financial interests, rather than necessarily seeking to impose economic costs upon its member states.[606] The pace of negotiations was dictated by multinational corporations, many of which had already started mass-production of lower-cost substitutes for the ozone-depleting substances enumerated in the

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[600] United Nations, '*Delivering as One': Report of the High-level Panel on UN System-wide Coherence in the areas of Development, Humanitarian Assistance and the Environment* (2006), 20 November 2006, UN Doc A/RES/61/583, para. 37 ('UNEP, the principal environment organization of the United Nations – with its normative, scientific, analytical and coordinating mandate – is considered weak, under-funded and ineffective
in core functions').
[601] James Gustave Speth, *Global Environmental Challenges: Transitions to a Sustainable World* (New Haven: Yale University Press, 2004), p.88.
[602] *Vienna Convention for the Protection of the Ozone Layer*, opened for signature on 22 March 1985, 1513 UNTS 323 (entered into force on 22 September 1988) ('Vienna Convention'); *Montreal Protocol on Substances that Deplete the Ozone Layer*, opened for signature on 16 September 1987 [1989] ATS 18 (entered into force on 1 January 1989) ('Montreal Protocol').
[603] *United Nations Convention on the Law of the Sea*, opened for signature on 10 December 1982 (entered into force on 16 November 1994) ('UNCLOS').
[604] Chukwumerije Okereke, *Global Justice and Neoliberal Environmental Governance* (Abingdon: Routledge, 2010), p. 79.
[605] Ibid 57-79.
[606] Cass R Sunstein, 'A Tale of Two Protocols' (2007) 31 *Harvard Environmental Law Review* 1, 33-36.

protocol. The Du Pont Corporation, for example, had already begun to mass produce low-cost substitutes for chlorofluorocarbons ('CFCs'): the gas that the protocol specified as having the earliest phase-out date. Along with its competitors, Du Pont subsequently profited from marketing the transition between successive generations of refrigerant gases: namely, hydrochlorofluorocarbons ('HCFCs'), halons, methyl bromide, and now, hydrofluorocarbons ('HFCs').[607] The protocol helped these corporations sustain comparative advantages over many infant industries—particularly those in Third World states—that manufactured refrigerant gases. It also allowed corporations to exploit, and expand, commercial opportunities through the protocol.[608] The protocol's effect was, therefore, to enhance the economic interests of the world's major industrial powers. As a consequence, states and major corporations were able to redeploy the ozone layer crisis as a means for pursuing their economic and financial interests.

Conclusion

In this chapter, I have sought to offer a portrayal of a foundational moment in international (environmental) law: the 1972 Stockholm Conference. I have focused, specifically, on illuminating how 'the environment' emerged as a distinct object, and field, of international law. Using the dromedary as an example, my story has suggested that the environment was adapted to suit particular animals: in this case, a minority of wealthy First World countries—particularly the United Kingdom and the United States—as well as the techno-scientific industrialists, financiers, and their bureaucratic allies seeking to uphold a trade-friendly global order. During the preparatory stages of the Stockholm Conference process, the nascent environmental regime was grounded upon the (economic) development aspirations of Third World governments. Yet, as we have seen, it was not merely First-Third World dynamics that shaped and impeded the disciplinary formation of international (environmental) law. Once the actual conference commenced, some governments—particularly those that had no representation on the preparatory

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[607] Ibid.

[608] This perhaps aligns with Naomi Klein's view that situations of disaster are sometimes commandeered to enforce reforms that strengthen forms of capital accumulation. See Naomi Klein, *The Shock Doctrine: The Rise of Disaster Capitalism* (Toronto: Knopf, 2007). For an example of this in relation to legal regimes applicable to climate-resistant seeds, see also Anne Saab, *A Legal Inquiry into Hunger and Climate Change: Climate-Ready Seeds in the Neoliberal Food Regime* (PhD Thesis, The London School of Economics and Political Science, 2015), available at: <http://etheses.lse.ac.uk/3201/1/Saab_A_Legal_Inquiry_into_Hunger_and_Climate_Change.pdf> (last accessed on 24 June 2018), pp. 191-196.

committee, such as the Ivory Coast, Nigeria, Libya, Tanzania, and the PRC—sought to relate the issue of the environment to wider claims against imperialism, racism, human persecution, relocation of refugees, dangers of stratospheric pollution from high-altitude aircraft, as well as prohibiting ecocide and nuclear weapons. These governments used the conference as a platform for seeking redress for what were significant issues in world affairs.

I then highlighted strategies through which these struggles between competing aspirations were defused, moments of potential rupture foreclosed. My story proposed that this occurred through a strategic turn to techno-scientific, industrial, and financial logics, which became central features of the conference's outcome document. I explained that this move—strategically orchestrated by the conference's Secretary-General, organisers, and representatives of powerful states—was designed to ensure the engagement of dissenting governments in the conference process. These actors conspired with a number of prominent NGOs to displace some of the more subversive 'political' issues to other fields of law that were seemingly beyond, or outside, the global environmental regime's scope. Key actors also castigated governments that sought to raise apparently controversial issues. These actors momentarily domesticated and marginalised dissenting governments, who were accused of trying to subvert the international law-making process. As such, it was through these dynamics and logics—serving as primary referents—that the 'human environment' became forged as an international legal-institutional object. Consequently, the Stockholm Conference ratified a specific vision of the environment, which became projected as universal.

This is not to say that the environment became imagined in ways that had no effect of reducing pollution, deforestation, overfishing, or trade in endangered species. Instead, I have argued that international law envisioned the environment in a way that merely tinkered with these issues. Yet, it left unperturbed their root causes: namely, the continued exploitation of raw materials needed to serve continuously growing economies, as well as the structural inequalities of the global economic system itself. This was notwithstanding concerted efforts by some Third World commodity exporting countries to assert power over commodity prices, particularly in the decade following the Stockholm Conference. As I have argued, the environmental realm was brought into being in ways adapted to sustaining the fundamental causes of the very problems it promised to resolve. It denied the emergence of a more complex, multipolar, and less

static global order. In this regard, my story demonstrates how a complex array of reinforcing interests constructed the human environment in ways that have shackled us to familiar patterns of resource extraction, consumption, and pollution. While partly domesticated and marginalised, I will observe—in the following chapter—how dissensus re-emerged in the course of discussions about a concept that became known as 'sustainable development'.

CHAPTER FIVE

UNIFYING THE PLANET, MANUFACTURING A COMMON FUTURE

'The first step towards reimagining a world gone terribly wrong would be to stop the annihilation of those who have a different imagination [...] To gain this philosophical space, it is necessary to concede some physical space for survival of those who may look like the keepers of our past but who may really be the guides to our future.'

— Arundhati Roy, *Broken Republic: Three Essays*[609]

Introduction

Humanity's first journeys into space brought us under the spell of a new image: not of space, the stars, or even the moon, but of the earth. Looking from their lunar module onto a distant planet, the Apollo 8 astronauts photographed a small, fragile, and finite blue ball. They captured a vision of the earth as a single holistic object—enveloped by clouds, oceans, greenery, and soils—shining against the infinite darkness of outer space. Never before had this singular, unified image of the planet become visible to humanity. In its vulnerability and isolation, this image of a floating globe—what one commentator called 'a small island of life floating in an ocean of empty space'—furnished many peoples with a collective awe and wonder.[610] Indeed, some argue that the photograph imagined a new reality: that of the earth itself as a bounded place, condemned to a singular manifest destiny.[611] With this, the idea of unity became a biophysical reality.

Much has been written of this photograph—called 'Earthrise'—as a transformative symbol of the earth's vulnerability, and a normative icon of physical interconnectedness. The image is widely understood in terms of this type of significance. It is now the subject of a huge body of literature. Many Euro-American commentators, in particular, regard the photograph as a watershed moment in calls for greater responsibility toward the environment. Environmental legal scholar Lynton Caldwell, for example, thought of it

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[609] Arundhati Roy, *Broken Republic: Three Essays* (London: Penguin, 2011), p. 183.
[610] Daniel B Botkin, *Discordant Harmonies: A New Ecology for the 21st Century* (Oxford: Oxford University Press, 1992), p. 5.
[611] William Anders, 'Earthrise 1968', in Robert Sullivan and Barbara B Burrows, *Life's 100 Photographs that Changed the World* (New York: Time, 2003), p. 14.

as bringing about **'**a paradigm shift in ways of thinking about how the world works'.[612] Famed photojournalist Galen Rowel called it 'the most influential environmental photograph ever taken'.[613] In a pioneering manifesto, published in 1987, entitled *Our Common Future*, the World Commission on Environment and Development ('WCED') evoked the Earthrise image to convey a specific point. It wrote that 'humanity's inability to fit its activities' into the earth's boundaries 'is changing planetary systems'.[614] The report envisioned all of humanity as framed by an enclosed planetary system, the operation of which was vulnerable to human actions. This imagery of a bounded planet replaced that of 'wide open spaces' and limitless resources.[615]

In this chapter, I offer a more critical reading. Situating Earthrise against the backdrop of dissensus, I draw attention to the fact that it not only represents a unified world in geophysical terms, but also in ideological terms. The imagery, I argue, was appropriated by environmental movements to promote the envisioning of a unified world in ways that occluded, and disposed with, dissensus. Earthrise thus became a dream of power ensconced in the global gaze. It offered a (transcendent) perspective of the entire world through the vehicle of 'sustainable development'. The WCED's definition of sustainable development—as 'development that meets the needs and aspirations of the present without compromising the ability of future generations to meet their own needs'—has since become a 'widely accepted starting point' for those 'concerned with environment and development dilemmas'.[616]

Critics allege, however, that sustainable development was left 'deliberately ill-defined'.[617] To many commentators, this disguised states' inability to resolve key points

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[612] Wendy Read Wertz, *Lynton Caldwell: An Environmental Visionary and the National Environmental Policy Act* (Bloomington: Indiana University Press, 2014), p. 149. See also, Sheila Jasanoff, 'Image and Imagination: The Formation of Global Environmental Consciousness', in Clark A Miller and Paul N Edwards, *Changing the Atmosphere: Expert Knowledge and Environmental Governance* (Cambridge: MIT Press, 2001), p. 317.
[613] Sullivan and Burrows (2003), p. 14. See also, John Noble Wilford, 'On Hand for Space History, as Superpowers Spar', *New York Times* (online), available at: <http://www.nytimes.com/2009/07/14/science/space/14mission.html?pagewanted=all&_r=0> (last accessed on 12 February 2015).
[614] World Commission on Environment and Development, *Our Common Future* (Oxford: Oxford University Press, 1987), p. 11.
[615] Sheila Jasanoff, *Science and Public Reason* (Abingdon: Routledge, 2012), p. 86.
[616] Chris Sneddon, Richard Howarth and Richard Norgaard, 'Sustainable Development in a Post-Brundtland World' (2006) 57 *Ecological Economics* 255.
[617] Frances C Moore, 'Toppling the Tripod: Sustainable Development, Constructive Ambiguity, and the Environmental Challenge' (2011) 5(1) *Consilience: The Journal of Sustainable Development* 141, 142-144. See also, 'The great race', *The Economist* (online), 4 July 2002 available at: <https://www.economist.com/special-report/2002/07/04/the-great-race> (last accessed on 9 July 2018).

of conflict, thereby preventing a breakdown of negotiations. Some labelled the term as 'constructively ambiguous'.[618] 'Consensus on a vague concept', economist Herman Daly wrote, for example, was 'better than disagreement over a sharply defined one'.[619] Nevertheless, the idea of sustainable development was made neither wholly indeterminate, nor entirely unstable. Its definition retained, within it, an inherent stability: it was both an inclusion, and an exclusion, of certain logics. By systematising the inclusion of familiar logics, the WCED and subsequent 1992 United Nations Conference on Environment and Development ('Rio Earth Summit') became canonical moments in the history of international environmental law.

In the following sections, I offer a re-description of how this global vision was forged. I begin, in Section I, by contemplating how the WCED conceived sustainable development as a means to co-opt—or domesticate—resistance to prior international legal attempts to align the idea of the environment with development interests. The section briefly looks at the lineage of the phrase to discern what logics are transmitted through it. Thus, in the next section, I consider the strategies through which WCED commissioners excluded contradictory views in order to sustain this stable, but still fragile, vision of unity. Finally, I consider—in Section III—how these logics became concretised in law through the Rio Earth Summit process. My purpose is to explore how the process of juridifying sustainable development—as a symbol of apparent unity—erased local struggles, and de-radicalised the plight of peoples, from its totalising image of environmentalism.

I. Imagining a Transcendent Reality

On the tenth anniversary of the Stockholm Conference, in 1982, the United Nations issued a report on the state of the global environment. It indicated that massive increases in environmental degradation had taken place over the previous decade. Whilst there were some observable achievements, the report argued, huge declines in key environmental indicators had occurred in many countries since the Stockholm Conference. Environmental problems were particularly worsening in Third World countries. For this,

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[618] This term is often attributed to Henry Kissinger. See Geoff R Berridge, Lorna Lloyd, and Alan James, *The Palgrave MacMillan Dictionary of Diplomacy* (3rd ed, Basingstoke: Palgrave MacMillan, 2003), p. 51.
[619] Herman Daly, *Beyond Growth: The Economics of Sustainable Development* (Boston: Beacon Press 1996), p. 2.

the United Nations blamed 'the present international economic order', which it claimed had 'slowed down their development and protection of their environment'.[620] 'The high-minded rhetoric of 1972', Strong said, 'was patently at odds with global reality' in the 1980s.[621] The Executive Director of the United Nations Environment Programme ('UNEP'), Mustafa Tolba, also expressed disappointment with this state of affairs. He acknowledged that environmental concepts had been 'too slowly applied', and in some cases 'ignored entirely'. 'The inevitable result', he said, is that the Stockholm Conference's fundamental objective—protecting and enhancing the environment for future generations—had 'not been fulfilled'. 'On virtually every front', he stated, 'there has been marked deterioration in the quality of our shared environment'.[622]

With these observations, many felt compelled to renew 'the sense of urgency and commitment' to environmental protection.[623] Leading these appeals was Canada's High Commissioner to Kenya, Geoffrey Bruce, who first proposed—in 1981—a 'commission of eminent people to study the challenges of the world environment'.[624] The United Nations General Assembly endorsed the proposal. It directed UNEP's Governing Council to prepare plans for a 'Special Commission on the Environmental Perspective for the Year 2000 and Beyond'.[625] This commission was later renamed the WCED. It was a political body—comprised of representatives from each of the United Nations regional groups—appointed, in 1983, under the chairmanship of the former Prime Minister of Norway, Gro Harlem Brundtland.

Brundtland invited twenty-three individuals to join the WCED. Six were Europeans, three from North America, four each from South America and Asia, and six were from African or Middle Eastern backgrounds. Each member brought to the WCED significantly diverse—and often contradictory—interpretations of what was needed to

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[620] United Nations Environment Programme, *The Environment in 1982 – Retrospect and Prospect* (1982), UN Doc UNEP/GC(SSC)/2, p. 99.
[621] 'Interview with Maurice Strong', 21 February 2012, quoted in Iris Borowy, *Defining Sustainable Development for Our Common Future: A History of the World Commission on Environment and Development (Brundtland Commission)* (London: Routledge, 2014), p. 48.
[622] Mustafa K Tolba, *Sustainable Development Constraints and Opportunities* (London: Butterworths, 1982), pp. 16-17.
[623] *Session of a special character of the Governing Council of the United Nations Environment Programme*, GA Res 36/189, UN GAOR, 36th sess, 103rd plen mtg, UN Doc A/RES/36/189 (17 December 1981).
[624] Jim McNeill, 'From Controversy to Consensus, The World Commission on Environment and Development' (2007) 37(2) *Environmental Policy and Law* 242, 243.
[625] *Session of the Governing Council of the United Nations Environment Programme*, GA Res 37/219, UN GAOR, 37th sess, 113th plen mtg, UN Doc A/RES/37/219 (20 December 1982).

bring environmental and development objectives together. Despite what was an intense period in Cold War relations, East-West divisions remained relatively innocuous during the WCED's discussions. American and Soviet commissioners emphasised different priorities. Yet, they tacitly agreed upon forms of market economy—combined with regulation through political controls—as the basis for global environmental governance.[626] A more profound division took place along First and Third World lines. This division was epitomised, for example, through the familiar demands of some commissioners—notably Cote d'Ivoirian politician Lamine Fadika, Sudanese politician Mansour Khalid, and Algerian diplomat Mohamed Sahnoun—for First World governments to increase funding for development assistance. The commissioners argued that this was necessary compensation for the imperialist exploitation of Third World countries. Predictably, the proposal was met with incredulity by First World commissioners, such as by the vocal West German politician Volker Hauff.[627]

A related issue emerging during the WCED's discussions was how appropriately to balance trade-offs between what seemed as conflicting environmental and economic priorities. Previous pronouncements about the apparently complementary character of these terms had, many commissioners realised, overlooked these fundamental tensions.[628] To some of the more radical commissioners—including South American environmental activists Margarita Marino de Botero and Paulo Nogueira-Neto, as well as the Mexican Marxist scholar Pablo González Casanova—participation on the WCED was a unique opportunity. They saw their participation as a way to highlight—and advocate changes to—unjust social and environmental structures.[629] On the other hand, American business leaders William Ruckelshaus and Susanna Agnelli immediately rebuked any such calls to radically reform the global system as fundamentally misguided. They regarded the effects of existing socio-economic systems in an overwhelmingly positive light. Yet, both Ruckelshaus and Agnelli acknowledged that some reforms might be needed to attain

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[626] For a possible explanation of this homogeneity in East-West positions, and the role of international law on this convergence, see Aaron Wu, 'Bridging Ideologies: Julian Huxley, Detente, and the Emergence of International Environmental Law' in Sundhya Pahuja, Gerry J Simpson and Matthew Craven (eds), *Cold War International Law* (Cambridge University Press, forthcoming 2018).
[627] Borowy (2014), pp. 58-60.
[628] 'Minutes of the Third Meeting, 21–28 June 1985', WCED, Vol. 40, Doc 28, International Development Research Centre ('IDRC'), pp. 26–30.
[629] 'Interview with Istvan Láng', 12 December 2011; 'Interview with Margarita Marino de Botero', cited in Iris Borowy, *Defining Sustainable Development for Our Common Future: A History of the World Commission on Environment and Development (Brundtland Commission)* (London: Routledge, 2014), p. 61.

environmental outcomes.[630]

Even before the official meetings began, the WCED Secretariat recognised that resolving these many competing demands would become the commission's most difficult challenge.[631] Maurice Strong called it a 'very unruly, divisive, frustrating operation'.[632] In response, Brundtland made the task of achieving a common narrative the commission's main objective. She said that the WCED's day-to-day work was 'to change reality, to sing a song or say a poem which can reach the ears of people and touch their hearts'. The ultimate objective, as Brundtland put it, was 'to stir people's imagination, to move their thoughts, feelings and sense of public responsibility'.[633]

Aligned with this task, several commissioners—who represented both First and Third World states—sought to upgrade the Commission's emphasis on development. It was an issue, the commissioners thought, 'that was not going away'. In fact, Ruckelshaus thought that any endeavours to reject it 'would lose very quickly' the support of the fourteen Third World commissioners.[634] In light of this, many commissioners concurred—during an October 1985 meeting—that 'the lack of growth and the lack of development presented greater environmental hazards than growth itself'.[635] Rectifying this meant not only that Third World industries would have to raise production, but also that Third World peoples would need to increase their consumption of resources. Yet, opposing this, some scholars—like David Satterthwaite—argued that 'the overall contribution of the poor to global resource consumption and waste production was negligible'. He pointed out that 'the high proportion of poor people among the world population had prevented pressures on global resources and waste sinks from rising higher'.[636]

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[630] 'Interview with William Ruckelshaus', 31 January 2012; 'Interview with Jim McNeill', cited in Iris Borowy, *Defining Sustainable Development for Our Common Future: A History of the World Commission on Environment and Development (Brundtland Commission)* (London: Routledge, 2014), p. 61.
[631] Ibid.
[632] Lars-Goran Engfeldt, *From Stockholm to Johannesburg and Beyond* (Stockholm: Swedish Ministry of Foreign Affairs, 2009), p. 139. See also, Mukund Govind Rajan, *Global Environmental Politics: India and the North-South Politics of Global Environmental Issues* (Delhi: Oxford University Press, 1997), p. 203.
[633] 'Secretariat Proposed Work Programme', UN Doc WCED/85/19, IDRC, pp. 10-13.
[634] 'Interview with William Ruckelshaus' (2014), pp. 126-127.
[635] Janez Stanovnic, 'Minutes of the Fourth Meeting', 25 October–4 November 1985, WCED, Vol. 41, Doc. 24, IDRC, pp. 14-15.
[636] David Satterthwaite, 'What Progress since *Our Common Future*?', in Guri Bank Søfting et al (eds), *The Brundtland Commission's Report – 10 Years* (Oxford: Scandinavian University Press, 1998), pp. 32-34.

In early 1986—at the height of its work—the WCED requested that its secretariat draft a memorandum aiming to reconcile these differing views. The memorandum was written by Nitin Desai—an Indian economist—who sought to distil several key elements from the commissioners' discussions. Desai then moulded these elements into a position paper. Sent to commissioners in June 1986, this paper introduced the idea of sustainable development. Desai used the idea as a central theme for the purposes of merging competing demands within a singular narrative, or common policy framework. The language he used to frame sustainable development eventually found its way into the WCED's final report:

> 'The concept of 'sustainable development' can provide the basis for such an integration. A development path is sustainable if it meets needs of the present without compromising the ability to do the same in future. There are three crucial elements in this short statement. The first is the concept of needs, the second is the ability to meet these needs and the third is the link between the present and future capacity to satisfy needs.'[637]

Two particular features of this definition stood out. One was the logic of 'needs', which invoked the primacy of human preferences and exceptionalism. Desai inherited this formulation of needs from the Stockholm Declaration. The Declaration made reference to 'human needs and hopes' as dependent upon the continued use of the environment.[638] Fundamentally, Desai's characterisation similarly imagined the environment as a set of raw materials that were 'essential' for human 'development'.[639] Another glaring feature of the definition was its temporal distinction between 'the present' and 'the future'. Investigating the lineage of these ideas might give some further insight into their logics. In this regard, American economist Kenneth Boulding argued—in a 1966 article, entitled the 'Economics of the Coming Spaceship Earth'—that the welfare of the individual person depended on two specific factors. These comprised both an ability to identify with a 'community', in a spatial sense, and also ensuring the durability of such a community 'over time from the past into the future'.[640]

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[637] 'Memorandum from Desai to all Commissioners', 27 June 1986, quoted in Iris Borowy, *Defining Sustainable Development for Our Common Future: A History of the World Commission on Environment and Development (Brundtland Commission)* (London: Routledge, 2014), p. 47.
[638] *Stockholm Declaration* (1972), para. 6.
[639] Ibid, Principle 14.
[640] Kenneth Boulding, 'The Economics of the Coming Spaceship Earth', in Herman Daly (ed), *Economics, Ecology, Ethics* (Revised ed, New York: W H Freeman), p. 260.

In a similar vein, the Club of Rome's report, *Limits to Growth*, used the term 'sustainable' to describe what it considered to be a desirable ecological 'state of global equilibrium'.[641] This followed Ward and Dubois' usage of the word in their book *Only One Earth*. Also published in 1972, the book argued for the need to formulate development strategies as a means to 'sustain livelihoods'.[642] Under Ward's guidance, this idea of temporality was put on the agendas of international fora. The Stockholm Declaration's recognition that the earth's natural resources 'must be safeguarded for the benefit of present and future generations' was largely a result of her efforts.[643]

After the Stockholm Conference, language reflecting similar ideas was used internally within UNEP. This included a number of phrases, such as 'ecodevelopment', 'development without destruction', 'development without destroying the environment', and 'environmentally sound development'.[644] On one occasion, for example, UNEP's Director of Economic and Social Programmes, Luis Sanchez, referred to 'ecodevelopment'—in a 1974 internal memorandum to UNEP staff—as an approach to development which 'harmonizes economic and ecological factors'. This harmonisation would be achieved in way that assured the 'best use of both the human and natural resources', of a given locality or region, to best meet the 'needs and aspirations of the people on a sustainable basis'. The approach had to involve 'a creative and planned community effort', with a view to cultivating 'patterns of life, institutions, and techniques' intended to give 'fullest possible expression' to their 'distinctive cultural and social values and goals'. As such, Sanchez wrote, ecodevelopment 'would enhance the quality of life', not only of individual people, but of 'the community as a whole'.[645]

Subsequently, in 1979, an International Institute for Environment and Development

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[641] Meadows et al (1972), p. 159.
[642] Ward and Dubos (1972), p. 38.
[643] *Stockholm Declaration* (1972), Principle 2. See also, David Satterthwaite, *Barbara Ward and the Origins of Sustainable Development* (London: IIED, 2006).
[644] 'The Oral History Interview of Mostafa Tolba, 18 May 2001', in United Nations, *The Complete Oral History Transcripts from UN Voices* (New York: United Nations Intellectual History Project, 2007), pp. 54-55. See also, Desta Mebratu, 'Sustainability and Sustainable Development: Historical and Conceptual Review' (1988) *Environmental Impact Assessment Review* 18, 50.
[645] The concept of 'eco-development' was advanced as part of the preparation of the so-called 'Founex II' conference, held in 1974. 'Papers by Maurice F Strong', cited by Michael Egan, 'Before Sustainable Development', 22 May 2012, available at: <http://eganhistory.com/2012/05/22/before-sustainable-development/#comment-94> (last accessed on 25 June 2018). A further elaboration of this concept can be found in Bernhard Glaeser (ed), *Ecodevelopment: Concepts, Projects, Strategies* (Oxford: Pergamon Press, 1984).

('IIED') study on the environmental performance of eight international institutions flagged 'sustainable development' as an 'underexplored concept of development literature'.[646] Perhaps the earliest attempt to comprehensively explore the term was, however, the 1980 *World Conservation Strategy*. This was published in collaboration with UNEP and the World Wildlife Fund ('WWF'). The report carried the term 'sustainable development' in one of its subtitles. It also dedicated two chapters to the idea's discussion.[647] On the whole, the report's stated objective was to take steps to achieving 'sustainable development through the conservation of living resources'. Pursuing this objective, the report identified actions to 'integrate conservation and development' by improving 'conservation efficiency'.[648]

Imposing a clear order of priorities, the report called for the necessity of applying 'human, financial, living and non-living resources' in order to satisfy 'human needs', and to 'improve the quality of human life'. For this to be 'sustainable', the report proposed, governments had to 'take account of social and ecological factors, as well as economic ones'. It noted that other relevant factors included the living and non-living resource base, as well as comparing 'long term' with the 'short term' effects of what the report called 'alternative actions'. The *World Conservation Strategy* collapsed these various logics into its definition of 'conservation'. With this, conservation transformed into the concept of sustainable development. While this concept did not eclipse conservation, it absorbed conservation in a specific way. This is evident in the *World Conservation Strategy's* framing. Worth quoting here in full, it reveals a number of striking similarities to Desai's characterisation:

> 'Conservation is defined here as: the management of human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations. Thus conservation is positive, embracing preservation, maintenance, sustainable utilization, restoration, and enhancement of the natural environment. Living resource conservation is specifically concerned with plants, animals and microorganisms, and with those non-living elements of the environment on which they depend. Living resources have two important properties the combination of which distinguishes them from non-living resources: they

[646] Robert Stein and Brian Johnson, *Banking on the Biosphere* (Toronto: Lexington Books, 1979), p. 7.
[647] World Conservation Strategy (1980), Chs. 1, 20.
[648] Ibid IV.

are renewable if conserved; and they are destructible if not.'[649]

Shortly after the report's release, usages of the phrase sustainable development became increasingly widespread. Lester Brown's book *Building a Sustainable Society*,[650] along with a number of studies by international institutions—such as the World Bank—sought to elaborate upon the *World Conservation Strategy's* approach. For example, in 1984, the Bank's staff circulated a paper entitled 'Carrying Capacity, Population Growth, and Sustainable Development' for internal discussion.[651] These works promised the possibility for countries to develop along conventional trajectories of techno-scientific, financial, and industrial growth, while also simultaneously preserving the integrity of the Earth's natural processes. Nevertheless, some astute actors recognised that the parameters of sustainable development could be cast in terms favourable to them. Michael Soule, for instance, criticised the concept as a 'profane grail' that carried within it an 'odd delusion of having your cake and eating it too'.[652] Yet, by building upon these logics, the WCED's version of sustainable development offered a transcendent vantage point from which imagining a new reality—one that could apparently reconcile economic growth with the environment—became possible.

II. Unifying Fractured Narratives

A key part of understanding how this new vision of sustainable development was manufactured is to consider the means by which dissident perspectives were either carefully shielded from view, or partly absorbed, by the WCED's actions. Despite what were—at the time—often-minimal responses from governments, many peoples' attitudes continued to shift toward the need to tackle environmental issues. These attitudes complemented an escalating recognition, by many scientists, of the severe consequences wrought by industrial expansion and rapid economic growth on human and environmental

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[649] Ibid, para. 1.4. It is worth noting that a first draft of the report emphasised a more preservationist flavour, calling for policies and programmes to 'maintain the potential of wild plants and animals' in the face of 'changing human needs'. See Robert Allen, 'First Draft of a World Conservation Strategy', January 1978, p. 1, quoted in Stephen J Macekura, *Of Limits and Growth: The Rise of Global Sustainable Development in the Twentieth Century* (New York: Routledge, 2015), p. 240.
[650] Lester R Brown, *Building a Sustainable Society* (London: W W Norton, 1981).
[651] James W Kirchner, 'Two Essays on Population and Carrying Capacity', cited in World Bank, *World Development Report 1984* (Washington DC: World Bank, 1984), p. 204.
[652] Michael E Soule, 'The Social Siege of Nature', in Michael E Soule and Gary Lease (eds), *Reinventing Nature? Responses to Postmodern Deconstruction* (Washington DC: Island Press, 1995), p. 159. See also, Michael McCloskey, 'The Emperor has no Clothes: The Conundrum of Sustainable Development' (1999) 9 *Duke Environmental Law and Policy Forum* 153; Mebratu (1998).

health. High-profile industrial disasters occurring during this period—such as those at Three Mile Island, Bhopal, and Chernobyl—also catalysed shifts in perceptions.[653] Together, the factors compelled searches for new methods to bolster countries' economic growth, while also addressing the concerns raised by environmental movements. In the first subsection, I investigate how the task of promoting sustainable development—which became the final WCED report's central theme—was perceived as being reliant upon strengthening poverty eradication, an objective exclusively achievable through economic growth. Following this, I consider—in the second subsection—how commissioners sought agreement to downplay any role that affluence had as a significant cause of environmental damage.

2.1. Reinventing Poverty

Following a number of discussions on Desai's paper, many of the WCED's representatives gradually accepted that a focus on poverty reduction might serve as a basis for reconciling their disparate positions. Notwithstanding this, several Third World participants at the WCED's public hearings spoke to different views. Several speakers at the WCED's Harare meeting in September 1986, for instance, insisted on the need to mobilise indigenous African knowledge and traditional skills for food and energy production. They also argued that cash crops produced for foreign markets—which inevitably required an extensive use of synthetic fertilisers—should no longer be grown in preference to locally-adapted African crops.[654]

Yet, the same speakers highlighted the fact that the global economic system did not allow African peoples' regulatory autonomy to explore these policies. Instead, these speakers pointed out that international trade law prohibited many types of infant industry protection. It also made African exporters comply with non-tariff barriers—including rigorous food 'standards'—as preconditions for supplying many First World markets. Therefore, they argued, international law indirectly forced African peoples to cultivate

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[653] McCormick (1991), p. 129. These disasters have since become the subject of a voluminous body of ground-breaking scholarship. Upendra Baxi has drawn attention, for example, to how the Union Carbide Corporation—in operating a dangerous chemical plant in Bhopal—actively engaged in diluting the plant's safety measures in an attempt to increase profits. See, for example, Upendra Baxi, 'The Bhopal Victims in the Labyrinth of the Law: An Introduction', in Upendra Baxi and Amita Dhanda, *Valiant Victims and Lethal Litigation: The Bhopal Case* (New Delhi: Indian Law Institute, 1991), pp. i-ixix.
[654] 'WCED Harare Public Hearings, Afternoon Session, 18 September 1986', WCED, Vol. 37, Doc. 35, IDRC, pp. 81-82.

foreign crops, which were destined mainly for export to high-income countries, in order to generate the national income necessary for economic recovery.[655] These participants thus saw the benefits of large-scale irrigation projects as typically flowing to First World companies and a minority of wealthy Third World elites. By contrast, they saw the majority of Third World peoples as having to bear the various costs of these arrangements. Such costs included an increased susceptibility to diseases from chemical use, in addition to degraded lands and 'livelihoods'.[656]

More specifically, one such comment was made by the Zambesi Wildlife Society's Director, Dick Pitman. He drew attention to the plight of some peoples, who he observed were 'tied to a world system that creates such thing as beef mountains'. Meanwhile, he said forcefully, those peoples were led to 'destroy soil and forests' in order to earn the 'foreign exchange' they needed to survive.[657] Using their traditional practices, however, Pitman argued that such people were 'very capable indeed of developing in their own ways without destruction'. With this, Pitman sought to open up the notion of development. What was needed to achieve this, he said, was 'a radical new approach to global problems'. This approach could, Pitman proposed, permit countries to develop in 'their own more suitable manner'—that is to say, with their own resources and assets—in ways that their peoples thought were 'truly best for [a] general richer quality of life'. This was starkly opposed to conventional models of development, which Pitman claimed had already:

> 'led many industrial nations into the creation of shoddy consumer societies, the mental and physical ills of overdevelopment, the creation of appalling concrete slums and the assumption that true quality of life is based on a new car every two years and a conspicuous consumption of a wholly disproportionate quantity of the world's resources.'[658]

Pitman's rejection of the global order spurred some commissioners to devote more attention to social issues than they had previously done so. In particular, it seemed to have an effect on the two commissioners preparing the WCED report's chapter on economic relations, Commonwealth Secretary-General Shridath Ramphal of Guyana and

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[655] Ibid 81-82.
[656] Ibid.
[657] Ibid 83.
[658] Ibid.

former UNCTAD-UNECE adviser Janez Stanovnik of Slovenia. Shortly thereafter, they circulated a draft document criticising the effects of international economic law on 'deteriorating terms of trade', and on increasing the 'debt-service obligations' of poor countries. Ramphal and Stanovnik's draft also alleged that the International Monetary Fund's and Bank's structural adjustment programmes had depleted natural resources and degraded countries' potential for achieving long-term development objectives.[659] The result of such programmes, the two commissioners argued, was:

> '[t]o require relatively poor countries simultaneously to curb their living standards, accept growing poverty and export growing amounts of scarce resources for the purpose of maintaining external credit-worthiness'.[660]

Most of the WCED's Third World commissioners supported Ramphal and Stanovnik's assessment. Yet, they encountered opposition from Hauff, Ruckelshaus, and Agnelli.[661] Allying themselves with many First World commissioners, these three spoke of their support for the draft chapter's attempt to locate the sources of poverty. However, they thought that the focus of debates should not have been on the role of the global economic system, or on international law. Rather, they expressed belief that the chapter did not focus enough on the environmental causes of poverty. In reply, Ramphal and Stanovnik confirmed that their draft chapter had perhaps strayed too far from issues about the environment, as narrowly-defined by the WCED.[662] With this, they redrafted the chapter to reflect the discussions.

The final report argued that the environment's foremost adversary was not industrialisation, but rather the actions of peoples living in poverty. 'Those who are poor and hungry', it said, 'will often destroy their immediate environment in order to survive'. The WCED wrote that poverty forced such peoples to cut down forests, to overuse 'marginal land', allow livestock to 'overgraze grasslands', and crowd into 'congested cities'.[663] With this, the emphasis that Indira Gandhi—during her speech at the

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[659] 'Nitin Desai to all WCED members', September 1986, WCED/86/21, IDRC; Shridath Ramphal and Janez Stanovnik, 'Draft Chapter 11: International Economic Relations, Environment and Development', September 1986, WCED/86/21, IDRC, pp. 1-12.
[660] Ramphal and Stanovnik (1986), p. 13.
[661] 'Interview with Janez Stanovnik', 23 February 2012, cited in Iris Borowy, *Defining Sustainable Development for Our Common Future: A History of the World Commission on Environment and Development (Brundtland Commission)* (London: Routledge, 2014), p. 89.
[662] WCED (1987), p. 29.
[663] Ibid.

Stockholm Conference—had placed on the issue of poverty shifted to a focus on poor peoples as the fundamental cause of environmental problems. Forced to 'overuse environmental resources to survive', the WCED wrote, 'impoverishment of their environment further impoverishes them'.[664]

Our Common Future also argued that such a 'vicious downward spiral' tended to operate by forcing people 'back into subsistence agriculture'. This became cast as a source of environmental degradation. Such activities, claimed the WCED, degraded the environment by drawing 'heavily on the natural resource base'.[665] Thus, the report argued, poverty reduced people's capacity to use resources sustainably. Addressing the United Nations General Assembly after the report's publication, Brundtland similarly framed poverty as the principal cause and effect of environmental degradation, saying that it 'lies at the heart of all issues'.[666] In a contortion of logic, both poverty and environmental problems became reinvented in ways that shifted responsibility for their causes onto the very people suffering from those problems: that is to say, the world's poorest people themselves.

In the end, the WCED posited that stronger economic growth was the primary means for reducing poverty, and a central priority of global environmental work. It proclaimed that 'meeting essential needs depend[ed] in part on achieving full growth potential'. Alongside this, the WCED emphasised that the world's poor already had 'their fair share of the resources required to sustain growth'.[667] Moreover, the report stated that sustainable development required 'economic growth in places where such needs [were] not being met'.[668] In practical terms, this meant 'freer market access for the products of developing countries, lower interest rates, greater technology transfer, and significantly larger capital flows, both concessional and commercial'.[669] By highlighting the environmental impacts of poverty—and proposing that 'more rapid economic growth' could eradicate that poverty[670]—the WCED effectively co-opted the claims of Pitman, and other radical voices, to serve what became a global vision focused on growth as its

[664] Ibid 64.
[665] Ibid.
[666] UNGA, 'Provisional Verbatim Record of the Forty-First Meeting, 19 October 1987', UNOGL, UN Doc A/42/PV.41, pp. 9–10. See also, Mike Alderte, 'Mimister's plea on Third World Debts', *The Guardian*, 28 April 1987, p. 5.
[667] WCED (1987), p. 16.
[668] Ibid 42.
[669] Ibid 78.
[670] Ibid 78.

main goal. Therefore, instead of emphasising self-sufficiency—or calling for a regeneration of people's life-spaces—the commissioners proposed that economic interactions could potentially bind all states together in 'ever-tightening networks'.[671] Ultimately, the WCED's framing of poverty transformed the term from its wider, more traditional definition—implying some form of 'deficiency', or lack of a desired quantity[672]—into a version focused on maximising economic growth.

The report's identification of the world's poor as a major cause of environmental destruction caused consternation. Even some First World representatives admitted, in private, that 'disproportionate attention was given to the role of developing countries'.[673] Yet, a number of other critics made emphatic attempts to oppose this. For example, during a May 1986 meeting, the Brazilian commissioner Paulo Nogueira-Neto accused the WECD's Secretary-General, Jim McNeill of Canada, of promulgating 'excessive' and 'extremely conservative' Euro-American models of industrialisation and economic growth.[674] Nogueira-Neto was highly critical of what he saw as the Secretariat's efforts to frame these as exclusive forms of 'development'. His attitude irritated McNeill, who felt that Nogueira-Neto's 'moral superiority' and 'self-righteous' demands had emboldened some other Third World representatives.[675] As a result, McNeill saw Nogueira-Neto's contributions as increasingly undermining the Secretariat's attempts to bridge divisions.

In response, McNeill instructed the Secretariat to ignore Nogueira-Neto's criticisms, feeling confident that these were not shared by the majority of commissioners.[676] This effectively marginalised Nogueira-Neto, and several others with similar views. The Secretariat's apparent lack of concern for these, seemingly radical perspectives,

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[671] Ibid 28.
[672] 'Poverty', *Oxford English Dictionary* (online), available at: <http://www.oed.com/view/Entry/149126?redirectedFrom=poverty#eid> (last accessed on 29 June 2017). See also, Majid Rahnema, 'Poverty', in Wolfgang Sachs (ed), *The Development Dictionary: A Guide to Knowledge as Power* (London: Zed Books, 2010), p. 147.
[673] United Kingdom Department of the Environment, 'Briefing: Agenda Item No. 83(e)', October 1987, National Archives (United Kingdom), File: T553/41 [Classified: Unclassified]. Senior officials from Her Majesty's Treasury held similar sentiments. See, for example, HM Treasury, UK Memorandum from M G Medley to M S Life, 'UN: World Commission on Environment and Development', 13 April 1987, National Archives (United Kingdom), File: T553/41 [Classified: Unclassified], p. 103/9.
[674] Borowy (2014), p. 105.
[675] Paulo Nogueira-Neto, *Trajectória ambientalista*, p. 290, quoted in Iris Borowy, *Defining Sustainable Development for Our Common Future: A History of the World Commission on Environment and Development (Brundtland Commission)* (London: Routledge, 2014), p. 103.
[676] Ibid.

prompted the Mexican Pablo González Casanova—who had been the 'intellectual voice' against imperialist trends—to feel increasingly unable to reconcile his own worldviews with the discussions taking place in the WCED.[677] Shortly thereafter, Casanova resigned from the Commission—in August 1986—ostensibly for 'personal reasons'.[678]

2.2. Understating Limits

Many WCED members also sought to downplay synergies between high consumption patterns in affluent First World countries and environmental problems. During the WCED's public hearings in May 1986, for example, Stanovnik adamantly rejected any interpretation of development that implied economic stagnation. Healthy societies, he argued, needed growth. This growth, in turn, enabled countries to achieve budgetary surpluses and higher 'GNP'. Stanovnik opined, therefore, that the Commission should 'build into the concept of sustainable development the capacity of the society not only to reproduce itself but also to create surplus from which it could then go towards progress'.[679] United States Treasury Secretary James Baker made the argument more forcefully. He reasoned that economic growth would automatically lead to environmental protection. This was because only people who had achieved high standards of living would begin to care for rivers and wildlife. 'No US political leader who wants to remain in office will endorse a slow-growth platform', he added.[680]

Hungarian commissioner István Láng, along with several others, expressed bitter opposition to these views. A famed biologist, Láng argued that Third World demands for equity might require First World countries to limit their growth. Ramphal shared this opinion. He stated that biophysical limitations would likely prevent the possibility of all peoples 'across the board' from achieving First World 'levels of consumption'. As a consequence, Ramphal claimed, if rich countries continued to consume resources at their present rate, then it would not to be possible for poorer countries to achieve even 'tolerable level[s] of consumption'.[681] An upshot of this, said one NGO leader, Tim Stoel, was that growth in First World countries would have to be 'qualitative more than

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[677] Borowy (2014), p. 124.
[678] WCED (1987), p. 291.
[679] 'Ottawa Public Hearings, Evening Session, 28 May 1986', WCED, Vol. 36, Doc. 27, IDRC, p. 18.
[680] James Baker, 'Economic Growth and Conservation: Partners, not Enemies', in Vance Martin (ed) *For the Conservation of Earth*, Golden (Boulder: Fulcrum, 1988), pp. 245-246.
[681] Thomas George Weiss, Tatiana Carayannis, Louis Emmerij, Richard Jolly, *UN Voices: The Struggle for Development and Social Justice* (Bloomington: Indiana University Press), p. 425.

quantitative'. Meanwhile, he claimed that Third World countries would need greater quantitative growth.[682]

Also speaking at the same meeting, Desai commented on the hypocrisy of downplaying affluence as a legitimate objective for Third World peoples. Instead of reducing Third World consumption, Desai said, 'the central issue' should be the impact of First World industrial activities at the global level.[683] Ruckelshaus acknowledged that the commissioners came to realise that 'there may be some limits to growth'. Yet, he recalled, the WCED concurred that 'we hadn't approached them yet'. Subsequent to their discussions, the commissioners 'concluded that it was not an issue that [they] were going to be able to resolve'. Rather, they agreed that what was needed—Ruckelshaus revealed—was a greater emphasis on 'environmental stability'. They saw this as a key part of the equation for encouraging both 'economic growth as well as economic equity'.[684]

Clearly, divisions about affluence and biophysical limits proved difficult to reconcile. While commissioners were unable to fully align their different views, the synthesis position outlined in Desai's September 1986 memorandum proposed a consensus path. Desai's proposal promised the possibility of 'other, newer kinds of growth'. This included 'higher levels' of physical, intellectual, and spiritual growth, rather than merely economic growth. There were 'no limits to this kind of growth', as opposed to 'the traditional sense' of the term.[685] Some commissioners—such as Botero and Nogueira-Neto—appeared sympathetic to these alternative approaches to development. Some such alternatives called for profound changes to production and consumption patterns. These included what became known as 'steady-state' or 'de-growth' economies.[686] Regardless of this, First World commissioners remained unwilling to give up the consumer lifestyles on which their nations' economies depended. Proposals to reduce affluence were also criticised by the labour movements on which First World environmentalists depended for financial and political support. On the other hand, most

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[682] WCED, 'Ottawa Public Hearings', p. 35.
[683] Ibid.
[684] 'Interview with William Ruckelshaus' (2014), p. 127.
[685] 'Nitin Desai to all WCED members, 3 September 1986', UN Doc WCED/86/21, IDRC, p. 39. See 'Draft Chapter 11: International Economic Relations, Environment and Development, 3 September 1986', UN Doc WCED/86/21, IDRC, pp. 38-39.
[686] See, for example, Herman Daly, *Economics, Ecology, Ethics: Essays Toward a Steady-State Economy* (San Francisco: W H Freeman, 1980).

Third World commissioners expressed eagerness for their nations to experience the benefits of consumer economies. This inability—or unwillingness—to change preconceived views was reflected in McNeill's explanation that:

> 'The politicians among us recognized that their colleagues in government couldn't reconcile limits with the fact that in order to get elected they had to promise voters to grow the economy ever faster, indefinitely. And economists couldn't reconcile limits with their basic models, which are utterly devoid of earthly constraints or which, at best, treat the earth as a mere externality.'[687]

In light of these divisions, the WCED concurred that highlighting the role of affluence in the final report might become fraught. Any strategy to do so might ultimately 'cost more in lost support and potential misinterpretation' than any prospective benefit in terms of 'accuracy and impartiality'.[688] Therefore, the commissioners agreed to defuse the issue. As such, the final report simply asserted that sustainable development could act as a guardrail against crossing any biophysical limits. While 'growth and development were subject to constraints in available stocks of resources and of waste absorption capacities', the WCED agreed, ecological limitations were 'not absolute and physical but of a technological and social nature'.[689] Explaining this logic further, Stanovnik declared that 'it is not resources and tangible materials which count'. Rather, technology also had a role to play alongside them. Given that the state of technology was 'all the time changing', Stanovnik claimed that there could be no certainty as to the 'final limit' of any given resource'.[690] Building upon this claim, the WCED agreed to emphasise that all industrial activities could have potentially benign effects. Aided by new technologies, the commissioners argued, the process of industrialisation could act as a cure—rather than as a cause—of environmental damage. This could make environmental and development objectives both 'interdependent and mutually reinforcing'.[691]

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[687] Jim McNeill, 'Foreword', in Iris Borowy, *Defining Sustainable Development for Our Common Future: A History of the World Commission on Environment and Development (Brundtland Commission)* (London: Routledge, 2014), p. ix.
[688] Borowy (2014), p. 207.
[689] WCED (1987), p. 44.
[690] 'The Oral History Interview of Janez Stanovnik', 7–8 January 2001, in United Nations, *The Complete Oral History Transcripts from UN Voices* (New York: United Nations Intellectual History Project, 2007), p. 87.
[691] Jim MacNeill, 'Letter to Commissioners', 15 May 1986, WCED/86/CRD2, IDRC, pp. 1-2.

In addition to this, *Our Common Future* boldly declared that there were 'no set limits' to growth, either in population or resource usage terms.[692] It emphasised a different notion of limits: those 'imposed by the present state of technology and social organization'. The report highlighted these as affecting both the planet's ability to absorb the effects of human activities, and humanity's ability 'to meet present and future needs'.[693] The final report argued that technologies and societies could be 'both managed and improved', so as to 'enhance the carrying capacity of the resource base'. Together, it was said that these factors could 'make way for a new era of economic growth', in which all countries should aim for annual growth rates of 3 to 4 per cent.[694] Any mention of possible risks tied to modern technologies—such as fostering countries' 'dependency', or the 'heavy social, economic, and environmental costs' of deploying them[695]—was subsequently omitted from the report's final version.

In an added move, the commissioners took steps to cloak any potential conflicts between environmental and trade issues. The WCED's final report was replete with endorsements of the need to remove trade distortions and protectionist policies, liberalise trade, and increase the exports of developing countries.[696] The inclusion of this text was partly the result of Strong's repeated warnings to his fellow commissioners that any final product of their discussions would have to be 'GATT legal'.[697] Such a statement sidestepped the potentially immense complexities and precise conflicts between trade and environmental issues. Fiona Macmillan describes the relationship as one of 'systemic disharmony'.[698] So, clearly, Strong's warnings—and the WCED's report—prejudged the outcomes of these interactions between the environmental and trade regimes. Put simply, the WCED prioritised trade and economic imperatives. Its final report carefully conjured away potential conflicts—such as those arising from ideas about biophysical limits—between

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[692] Ibid 42.
[693] Ibid 43.
[694] WCED (1987), p. 16. See also, Gro Harlem Brundtland, 'Our Common Future', in Vance Martin (ed), *For the Conservation of Earth* (Golden: Fulcrum, 1988), p. 10; Maurice Strong, 'Ecoconvergence – Ecology and Economics for Planetary Survival', in Vance Martin (ed), *For the Conservation of Earth* (Golden: Fulcrum, 1988), p. 244.
[695] These references to 'dependency' had previously been inserted into earlier drafts of the report. See Paolo Bifani, 'Science and Technology, June 1985', WCED, Vol. 11, Doc. 51, UN Doc WCED/85/15, IDRC, pp. 1-3.
[696] See, for example, WCED (1987), p. 73.
[697] Tom Athanasiou, *Divided Planet: The Ecology of Rich and Poor* (Athens: University of Georgia Press, 1998), p.167.
[698] For an insightful commentary of some of these interrelationships, see Fiona Macmillan, *WTO and the Environment* (London: Sweet & Maxwell, 2001). She describes this relationship as a 'systemic disharmony' (ibid 266).

any economic and environmental concerns. McNeill later explained—after the final report's publication—that this issue about the 'limits to growth' transformed into a recognition of the 'growth of limits'.[699] When Brundtland presented the WCED's final report to the United Nations General Assembly in October 1987, she acknowledged that 'the contents of growth must be changed'. Yet, she said, the WCED regarded economic growth as 'absolutely necessary'.[700]

Following the WCED's work, the World Trade Organization ('WTO') also attempted to reify perceived boundaries between the trade and environmental regimes of international law. The WTO Secretariat clarified that it was 'not an environmental agency', and 'only competent to deal with trade'. With regard to environmental issues, the institution stated that its 'only task' was to 'study questions that arise when environmental policies have a significant impact on trade'.[701] Furthermore, the WTO also noted—in what was widely seen as a ground-breaking report—that trade liberalisation and economic growth could not, in themselves, resolve all environmental problems:

> 'Economic growth is not sufficient for turning environmental degradation around […] If economic incentives facing producers and consumers do not change with higher incomes, pollution will continue to grow unabated with the growing scale of economic activity.'[702]

Moving from these issues of trade and the environment back onto sustainable development, the final version of *Our Common Future* designated that the concept was a set of techniques, and behaviours, designed to rectify both the 'failures of "development"

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[699] Jim McNeill, 'The Meshing of the World's Economy and the Earth's Ecology', in Steve Lerner (ed), *Earth Summit* (Bolinas: Common Knowledge Press, 1991), p. 27.
[700] 'Provisional Verbatim Record of the Forty-First Meeting (1987), p. 12.
[701] 'The environment: a specific concern', *World Trade Organization* (online), available at: <https://www.wto.org/english/thewto_e/whatis_e/tif_e/bey2_e.htm> (last accessed on 17 May 2018). This point was made earlier by a group of environmental NGOs in response to the Appellate Body's decision in *United States: Import Prohibition of Certain Shrimp and Shrimp Products* WTO Doc WT/DS58/R (1998) (Report of the Panel), WTO Doc WT/DS58/AB/R (1998) (Report of the Appellate Body) ('*Shrimp-Turtle I Appellate Body Report*'). They accused the Appellate Body of displaying an 'unwillingness and/or lack of expertise to deal with complex cases involving rights and obligations relating to endangered species and the protection of the global commons'. See Center for International Environmental Law, World Wildlife Fund, Community Nutrition Institute, and Oxfam, *Dispute Settlement in the WTO: A Crisis for Sustainable Development* (Discussion Paper, May 1998), quoted in Fiona Macmillan, *WTO and the Environment* (London: Sweet & Maxwell, 2001), pp. 18-19.
[702] Håkan Nordström and Scott Vaughan, *Trade and Environment* (Geneva: World Trade Organization, 1999), available at: <https://www.wto.org/english/tratop_e/envir_e/environment.pdf> (last accessed on 9 July 2018), pp. 6-7.

and failures in the management of our human environment'.[703] With this, the report sought to compel expanded efforts to monitor and regulate the planet: including air, water, soil, and energy usage. This attitude—as I have highlighted in earlier chapters—was reminiscent of historical projects with regard to the ownership, dominance, and the desire for mastery over nature. Led by this attitude, states installed centrally-designed institutions, regulatory mechanisms, and executive agencies—overseen by certain 'experts' or technocrats—that were supposedly indispensable for performing these tasks. As *Our Common Future* stated, reorienting the mandates of 'central economic and sectorial ministries' to 'anticipate and prevent environmental damage' would require 'major institutional development and reform'. This was particularly the case, it stated, in 'poor or small' countries that have 'limited managerial capacity' and would 'find it difficult to do this unaided'. The report added that those countries would 'need financial and technical assistance and training'.[704]

Upon the final report's publication, the United Kingdom and United States governments deeply opposed many of its recommendations. Specifically, their representatives contested suggestions that new global institutions needed to be created. They also rejected proposals to 'channel revenue from the global commons to sustainable development', as well as calls to relinquish corporations' intellectual property rights over transferred technologies.[705] Nonetheless, both governments offered unreserved support for the WCED's vision of sustainable development. For example, Sir Crispin Tickell—speaking for the United Kingdom—welcomed the final report's recommendation of tackling 'poverty and environmental degradation through long-term economic growth'.[706] In support, United States President George Bush also spoke of the need to sustain 'economic growth as the key to sustainable development'.[707] Accepting this logic, a number of other First and Third World governments made reservations—in the United Nations General Assembly—about possible risks that the WCED's recommendations

[703] WCED (1987), p. 12.
[704] Ibid 26-27.
[705] 'Provisional Verbatim Record of the Forty-First Meeting (1987), pp. 96-98. See also, Friends of the Earth, *Brundtland in the Balance: A Critique of the UK Government's Response to the World Commission on Environment and Development* (London: Friends of the Earth, 1989), p. 14.
[706] 'Provisional Verbatim Record of the Forty-First Meeting (1987), p. 87.
[707] George HW Bush, 'Address to the United Nations Conference on Environment and Development' (Speech delivered in Rio de Janeiro, 12 June 1992), available at: http://bushlibrary.tamu.edu/research/public_papers.php?id=4417&year=&month (last accessed on 28 December 2017).

might have upon countries' economic prospects.[708] Yet, member states committed the United Nations to the task of sustainable development. They also agreed to implement sustainable development policies within their own countries.

This gave an opportunity for the Bank to expand its operations. It came at a time when the Bank was facing condemnation, from many fronts, for its infamous Third World 'structural adjustment programmes'. Perhaps partly as a way of deflecting this criticism, its Senior Vice-President David Hopper declared—in 1988—'that over the course of the next year, the Bank will be addressing the full range of environmental needs of its partner nations'. These needs, he said, were both 'technical' and 'institutional'. Hopper proposed that they would take place at all levels of a project's design plans: all the way from its 'micro-details' to the 'macro-requirements of formulating, implementing and enforcing environmental policies'.[709] Following this logic, the World Bank's 1992 *World Development Report* sought to downplay what it called the 'sensational' risks of technological hazards and nuclear accidents. The Bank implicitly highlighted its own expertise, stating that people 'had to be educated to understand the true extent' of these—along with other—environmental risks. It framed these risks as 'less dramatic' than many had portrayed, and 'often under an individual's own control'.[710]

In all, the WCED's vision of a common future attributed responsibility for environmental problems predominantly to the actions of the world's poorest peoples. At the same time, it explicitly endorsed increased production, consumption, and economic growth. This established a relationship of equivalence between economic development and environmental protection. Significantly, these concepts were refashioned—through sustainable development—in ways making them appear reconcilable. The meanings of both development and the environment became configured around economic demands. Put in simpler terms, this strategic formulation offered an imaginative attempt to dissolve perceived conflicts between environmental and economic priorities. Fundamentally, what was sustained in the idea of sustainable development was the logic of growth-based

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[708] 'Draft resolution III in A/C.2/42/L.19', in Agenda item 82 (e), UNOGL, 42nd sess, UN Doc A/42/821/Add.5 (9 December 1987), p. 20. On 11 December 1987, this version was adopted by the United Nations General Assembly as *Report of the World Commission on Environment and Development*, GA Res 36/189, UN GAOR, 42nd sess, 96th plen mtg, UN Doc A/RES/42/187 (11 December 1987).
[709] David W Hopper, 'The World Bank's Challenge: Balancing Economic Need with Environmental Protection' (1988) 8 *The Environmentalist* 165, 169.
[710] World Bank Group, *Development and the Environment*: *World Development Report 1992* (Oxford: Oxford University Press, 1992), p. 87.

development. The WCED manufactured a story in which the world's poor were cast as unsustainable antagonists of the global environment, who desperately needed to reform their living patterns.

Meanwhile, the WCED's denial of affluence as a root cause of environmental harms reaffirmed the viability of technologically-advanced, industrialised societies as normative horizons to which all should strive. This had a de-radicalising—or counter-emancipatory—effect, which precluded any need to deeply alter prevalent development models or practices. Subsequently, the report had a significant effect on changing global perceptions about limits to growth. Following the WCED's work, it became 'politically incorrect'—by the early 1990s—to even mention the idea in international fora, save to deny or discredit it.[711] The United Nations Development Programme's 1994 *Human Development Report* declared, for example, that there was no longer any 'tension' between national economies and sustainable development. Both concepts, it claimed, relied on the 'universalism of life claims'.[712] The economy's liaison with the environment thus fortified the ailing concept, which emerged with rejuvenated life: what the WCED ended up calling a 'new era of economic growth'.[713]

III. A Fall Toward Apotheosis

Despite widespread governmental support for *Our Common Future*, a number of prominent scholars and commentators voiced dissenting opinions against it. Upon its publication, some immediately recognised problems with how the WCED had sought to balance environmental and economic concerns. The outcome became highly controversial. It attracted much condemnation from those who regarded economic growth as the main cause of environmental degradation. For instance, Daly labelled it a 'glaring contradiction'.[714] Likewise, economist Walter Rees described the WCED's appeal for a 'revitalisation' of growth as 'paradoxical at best'.[715] Predictably, many NGOs and civil society groups also expressed dissatisfaction with the WCED's conclusions. At a follow-up meeting held for NGOs in December 1988, many

[711] Ugo Bardi, *Limits to Growth* (Berlin: Springer, 2011), p. 85.
[712] United Nations Development Programme, *Human Development Report 1994: New Dimensions of Human Development* (London: Palgrave MacMillan), p. 19.
[713] WCED (1987), p. 78.
[714] Herman E Daly, 'Toward some operational principles of sustainable development' (1990) 2(1) *Ecological Economics* 1, 6.
[715] William E Rees, 'The ecology of sustainable development' (1990) 20(1) *The Ecologist* 18, 18.

participants claimed that parts of *Our Common Future* were 'profoundly wrong'.[716] Mindful of this, the present section explores the means by which this dissensus became neutralised—specifically, during the Rio Earth Summit process—in order for the concept of sustainable development to become globally accepted.

Energised by the WCED's work, United Nations member states agreed to convene the 1992 Rio Earth Summit for the purposes of 'elaborating strategies and measures' to promote sustainable development.[717] With this, sustainable development became the conference's leitmotif. Bringing together more than 150 countries, 1,400 NGOs, and 8,000 journalists,[718] the conference represented another major moment in international law's evolving vision of the environment. During the first preparatory meetings, member state representatives reiterated their main demands. At Maurice Strong's urging, a focus development finance quickly dominated discussions. 'The key issue', Strong announced at the first preparatory meeting in March 1990, was to negotiate Third World countries' access 'to the new technologies they needed', and to the 'additional resources'—above and beyond existing levels—required for integrating environmental activities into national development plans.[719] This reflected a 'stark reality', he said, that these countries simply could not afford the short-term funds required to invest in sustainable development.

Framing sustainable development in this way ignited conflicts amongst the meeting's participants. Representatives of the United States rebuked suggestions that additional aid needed to be given to Third World countries. Instead, they repeated the importance of lowering trade barriers and eliminating Third World subsidies. The United States government also sought to promote market-based solutions to environmental problems. Emboldened by Strong's message, however, G-77 members devoted many of their attentions over the subsequent months to inserting text—obligating additional financial support from First World governments—into the draft papers of every major working

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[716] Linda Starke, *Signs of Hope: Working Towards Our Common Future* (Oxford: Oxford University Press, 1990), p. 83.
[717] *United Nations Conference on Environment and Development*, GA Res 41/128, UN GAOR, 44th sess, 85th plen mtg, UN Doc A/RES/44/228 (22 December 1989), Ch. I, para. 3.
[718] James K Sebenius, 'Towards a Winning Climate Coalition', in Irving M Mintzer and J Amber Leonard (eds), *Negotiating Climate Change: The Inside Story of the Rio Conference* (Cambridge: Cambridge University Press, 1994), p. 298.
[719] 'Press Briefing by the Secretary-General of Conference on Environment and Development', 5 March 1990, The Thatcher Papers, Margaret Thatcher Foundation, Box 46, Folder 430, Part I.

group of the Preparatory Conference.[720] These actions caused even Strong to admit that 'little real progress' had been made to the conference's most pressing issues.[721]

Added to this impasse were several interlocking factors that threatened to derail the conference completely. In August 1990, the Iraqi government invaded Kuwait. This deflected attention away from the Rio Earth Summit's preparations. Importantly, however, environmental factors—and specifically, the Iraqi government's 'environmental damage and the depletion of natural resources'—was invoked as an alibi for the Security Council's decision to intervene in the First Gulf War.[722] The conflict led to high volatility in oil prices. This reduced consumer confidence all over the world. As oil prices rapidly increased, they caused economic crises, particularly in Europe and the United States. The resulting fiscal impacts made First World countries unwilling to offer any new financial commitments as part of the Rio Earth Summit process.[723]

Maintaining these rigid positions also undermined European and American counterproposals. One of the United States delegation's legal advisers warned, for instance, that—without sufficient counter-incentives—many governments of the Third World and Europe, along with most American environmentalists, would likely 'object to international emissions trading' mechanisms as part of a proposed climate change agreement. This was particularly the case where such proposals appeared to 'dodge or displace reductions' from sources in the United States to other nations.[724] The Brazilian and Indian governments appeared acutely 'hostile to the market-place permit concept'. They suspected First World countries would use 'economic leverage' to 'transfer

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[720] 'Working Group I', 24 September 1990, The Thatcher Papers, Margaret Thatcher Foundation, Box 52, Folder 489, Part I. See also, Engfeldt (2009), p. 116. It may be interesting to note that internal divisions bedevilled the G-77 during the 1980s. Splits occurred between newly-wealthy East Asian nations and their poorer counterparts, between OPEC and non-OPEC nations, and between those nations with significant resource endowments—such as Brazil and India's forests—and smaller nations without equivalent reserves. Nevertheless, the G-77 was still able to mount a collective defence of their interests. These loosely converged around the following demands: more technology transfer, resource sovereignty, a 'right' of Third World nations to develop, and increased foreign aid. Mark T Berger, 'After the Third World?: History, Destiny, and the Fate of Third Worldism' (2004) 25(1) *Third World Quarterly* 9. See also, Macekura (2015), p. 277.

[721] 'Press Briefing by the Secretary-General' (1990).

[722] *Resolution 687 (1991)*, UN SCOR, 2981st mtg, UN Doc S/RES/687 (8 April 1991), para. 16. See also, Sands and Peel (2012), pp. 69, 720-725.

[723] Bo Kjellen, 'A Personal Assessment', in Irving M Mintzer and J Amber Leonard, *Negotiating Climate Change: The Inside Story of the Rio Convention* (Cambridge: Cambridge University Press, 1994), p. 157.

[724] 'White House/Global Warming Position', 23 December 1991, Folder: Environment – Bush Adminsitration', White House Counsel Files, Jeffrey Holmstead Files, George HW Bush Presidential Library, quoted in Stephen J Macekura, *Of Limits and Growth: The Rise of Global Sustainable Development in the Twentieth Century* (New York: Routledge, 2015), p. 282.

emissions reduction obligations' in ways that could 'interfere with their development'.[725]

Another noticeable aspect of the preparatory negotiations affected by First World governments' inability—or unwillingness—to pledge additional financial support were those of a planned treaty to protect the world's biological diversity. Commonly referring to the immensely complex genetic variability of plants and animals, these were seen by many participants as safeguards for humanity's future needs: particularly in relation to medicines and agriculture.[726] As a result, the controversial Convention on Biological Diversity sought to consolidate existing agreements on species protection—including the Convention on the Trade in Endangered Species—into a more comprehensive agreement, covering both issues of species protection and guidelines for using resources. The United States government long supported such a comprehensive approach to a biological diversity treaty.[727] The country's biotechnology industry had already gained, by this stage, significant financial benefits from patent laws that allowed companies to identify plants and animals with potentially lucrative uses in medicines, manufacturing, or agriculture. These laws enabled transnational biotechnology firms to patent and sell these improved—or what some criticised as merely repackaged—'discoveries' as commodities back to their countries of origin, often at enormous profit. Responding to these trends, some Third World governments—led by the government of Mexico—sought to claim a share of profits from species derived from their lands.[728]

Like the parallel negotiations on a climate change treaty, many governments regarded this proposed treaty on biodiversity as an important trump card. At the Rio Earth Summit, some G-77 nations allied to demand that the biodiversity treaty ensure that multinational companies 'equitably' share any benefits derived from genetic resources with the source

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[725] 'Letter from William A Nitze to Alan Kreczko', 11 December 1989, File: Climate Change, General 2, Box 9, White House Counsel Files, Jeffrey Holmstead Files, George HW Bush Presidential Library, quoted in Stephen J Macekura, *Of Limits and Growth: The Rise of Global Sustainable Development in the Twentieth Century* (New York: Routledge, 2015), p. 278.
[726] *Convention on Biological Diversity*, opened for signature on 5 June 1992, 1760 UNTS 142 (entered into force on 29 December 1993), Art. 2. For an affirmation of this definition and the treaty's purposes, see its supplementary agreements: *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation to the Convention on Biological Diversity*, opened for signature 29 October 2010 (entered into force 12 October 2014), UNEP/CBD/COP/10/Decision X.1 (2010), Annex; *Cartagena Protocol on Biosafety to the Convention on Biological Diversity*, opened for signature 29 January 2000 (entered into force on 11 September 2003). For a further discussion on the anthropocentric and financial purposes of the treaty, see Kotsakis (2011).
[727] Macekura (2015), p. 278.
[728] Ibid.

countries from which they were obtained.[729] Those countries also sought to codify measures restricting private investment and exploration upon what they claimed were their sovereign territories. In response, the United States government—along with its European allies—contended that their corporations had legal rights to ownership over any discoveries they had made through free enterprise. This argument shows how deeply embedded the logic of Vitoria's justification for the Spanish appropriation of indigenous peoples' resources in the Americas—and its conceptualisation of property—had become. Throughout the 1980s, the logic continued to serve as a basis for some wealthy First World nations' threats to impose trade sanctions against countries—such as India—whose governments were unwilling to recognise, or enforce, patent standards.[730]

After significant delays, country representatives eventually agreed to appoint Strong and Singaporean diplomat Tommy Koh as joint chairs of the Rio Earth Summit's Main Committee. They decided to separate the negotiations into several workstreams. The first of these working groups met to draft the Rio Declaration and Agenda 21. A second working group was tasked with negotiating the proposed convention on climate change. By May 1992, however, these discussions had reached a low point. The United States refused to accept any stringent standards on greenhouse gas emissions, on the rationale that these would harm the trade competitiveness of American firms. As United States President George Bush proclaimed, 'the American lifestyle is not up for negotiation'.[731]

Negotiators from the United States convinced British representatives to renege on a proposal for the draft treaty to include emissions caps, saying that it was the only possible option for avoiding a collapse of the negotiations. The United Kingdom then lobbied other European governments to do the same. These actions caused internal disharmony within the European Community.[732] Following this, the treaty text was watered down during the working group's final meeting by its French chair Jean Ripart. He redrafted

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[729] Stephen Hopgood, *American Foreign Environmental Policy and the Power of the State* (Cambridge: Cambridge University Press, 2015), p. 170. The issue was first openly raised by the Mexican government at a meeting of the Food and Agriculture Organization ('FAO') in 1984. See Paul E Little, 'Ritual, Power and Ethnography at the Rio Earth Summit' (1995) 15(3) *Critique of Anthropology* 265, 269.
[730] Ibid 170.
[731] 'A greener Bush', *The Economist* (online), available at: <https://www.economist.com/leaders/2003/02/13/a-greener-bush> (last accessed on 18 May 2018).
[732] 'Letter from Clayton Yeutter to Chris Sheehan, Environment: UNCED [1 of 3]', David Bradford Files, Council of Economic Advisors, BPL, cited in Stephen J Macekura, *Of Limits and Growth: The Rise of Global Sustainable Development in the Twentieth Century* (New York: Routledge, 2015), p. 288.

language on emissions caps and implementation timetables in more general terms than had previously appeared. Several parties—including the Philippines and India—opposed his new formulation. These parties refrained, however, from pressing for action against Ripart's text, in light of the progress that had been made on other issues in the treaty, and their desire to secure a consensus position.[733]

Relatedly, Strong and Koh established a third group to discuss terms of the biodiversity treaty. These negotiations, however, faced a significant hurdle following the actions of several Third World governments' to insert provisions demanding mandatory technology transfers on non-commercial terms into the draft treaty text. These were squarely aimed at circumventing existing intellectual property rights held by First World multinational corporations. The resulting draft Article 16 proposed that Third World nations should retain complete sovereignty over biological resources sourced from their territories. This conferred discretion on such nations to invalidate any existing patent laws that applied over new scientific discoveries derived from those resources.[734]

These actions incensed the United States government. Its State Department responded by declaring, only days before the conference was due to begin, that it 'does not and cannot sign' such a 'fundamentally flawed' agreement.[735] President George Bush claimed that the convention would 'retard the development of biotechnology', and 'undermine the protection of ideas'.[736] European governments also had interests in protecting their own biotechnology companies. Yet, they recognised the inequality of the situation. They supported a compromise text that recognised some intellectual property protections, but gave Third World countries access on 'fair' and 'favourable' terms. This included some 'concessional and preferential' treatment.[737] Despite this, many parties feared that the discussions might face a similar fate to that of a fourth group, which had attempted to negotiate a forest protection treaty. This was abandoned at its final preparatory meeting due to a realisation that no substantive agreement was within

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[733] Chandrashekhar Dasgupta, 'The Climate Change Negotiations', in Irving M Mintzer and J Amber Leonard, *Negotiating Climate Change: The Inside Story of the Rio Convention* (Cambridge: Cambridge University Press, 1994), p. 143.
[734] Macekura (2015), p. 288.
[735] Hopgood (2015), p. 149. See also, Jane Perlez, 'Environmentalists Accuse U.S. of Trying to Weaken Global Treaty', *New York Times* (online), 19 May 1992, available at: <https://www.nytimes.com/1992/05/19/washington/environmentalists-accuse-us-of-trying-to-weaken-global-treaty.html> (last accessed on 23 May 2017).
[736] Little (1995), p. 269.
[737] Rajan (1997), p. 168.

reach.[738]

From 3 to 14 June 1992, delegates met in Rio de Janeiro to salvage an agreement. As a concession for securing some of its other demands, G-77 nations abandoned proposals to establish a United Nations-administered 'green fund' for delivering additional development finance. They did, however, secure a non-binding statement to increase financial assistance to them. In addition, all governments agreed to sign a heavily-compromised Framework Convention on Climate Change.[739] The final text of the Convention on Biological Diversity also attracted widespread acceptance. A noteworthy exception was that of the United States, which did not sign it, ostensibly due to the reasons cited earlier. Moreover, all governments signed the Rio Declaration and Agenda 21.[740] Importantly, the final text of these two outcome documents appeared more alike declarations on development, rather than ones directly on environmental issues. Participants invested much time and diplomatic skill to ensure that no provision could be interpreted as a restriction upon the development promise. This served as a convenient compromise for all nations, which desired above all to protect the techno-scientific, industrial model of the global economy, regardless of its environmental effects.

Fundamentally, the Rio outcomes reflected an ongoing global consensus to interpret environmental concerns in ways that were subsidiary to—or perhaps a subset of—economic development. For example, the Rio Declaration's Principle 2 reaffirmed states' prerogative to 'exploit their own resources pursuant to their own environmental and developmental policies'.[741] It duplicated Principle 21 of the Stockholm Declaration, save for the addition of the words 'and developmental' after its reference to the environment. We might observe these as displacing the more delicate balance between environmental and development issues that had previously appeared in the Stockholm Declaration. In support of this argument, the Rio Declaration also affirmed that the 'right to development', which had been recognised by the General Assembly several years before the Rio Earth Summit.[742] The Rio Declaration called for fulfilment of this right as a

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[738] Hopgood (2015), pp. 172-176.
[739] *United Nations Framework Convention on Climate Change*, opened for signature 9 May 1992 (entered into force on 21 March 1994), 1771 UNTS 107.
[740] *Report of the United Nations Conference on Environment and Development: Annex I*, 'Rio Declaration on Environment and Development', GAOR, UN Doc A/CONF.151/26 (vol I) (12 August 1992) ('Rio Declaration').
[741] *Rio Declaration*, Principle 2.
[742] *Declaration on the Right to Development*, GA Res 41/128, UN GAOR, 41st sess, 97th plen mtg, UN Doc A/RES/41/128 (4 December 1986), Principle 3.

necessary precondition for states' ability to 'equitably meet developmental and environmental needs of present and future generations'.[743]

As concessions for these (essentially) G-77 demands, First World countries petitioned for explicit recognition of a hierarchy between environmental issues and economic growth. Their efforts culminated in the Rio Declaration's Principle 4. It recognised that 'environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it'.[744] Then, turning to the central issue of sustainable development, the declaration recognised that 'eradicating poverty' was 'an indispensable requirement for sustainable development'.[745] With this—and the Rio Declaration's 13 other references to the idiom—the conference consecrated sustainable development as a central nodal point of international (environmental) law. It reproduced a developmental logic dependent on economic growth. Furthermore, it reified a view that all environmental problems—whether they resulted from agriculture, fishing, forestry, mining, nuclear energy, or urbanisation—were resolvable if only additional finance and transfers of industrial technology were possible. Vandana Shiva observed that this reduced solutions for environmental problems 'to a currency that the North dominates', thereby expanding those countries' spheres of control.[746] This undermined international law's capacity to operate as a genuine space for political debate.

Conclusion

I wish to return, at this juncture, to Earthrise. The image offered an intoxicating perspective—one that was both universal and hegemonic—of the world. With this in mind, I opened this chapter with a description of how the image—seen from transcendent vantage point—led to a global ideology. This ideology was that of sustainable development. In what followed, I engaged in a close study of sustainable development as a legally-produced concept. Investigating the debates and discussions of two international bodies—the WCED, and the 1992 Rio Convention—I drew attention to the environment's ongoing redefinition against the backdrop of dissenting voices.

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[743] Nevertheless, the written statement by the United States expressly stated that it 'does not, by joining consensus […] change its longstanding opposition to the so-called 'right to development'". See *Report of the United Nations Conference on Environment and Development* (1992), para. 16.
[744] *Rio Declaration*, Principle 4.
[745] *Stockholm Declaration*, Principle 5.
[746] Vandana Shiva, 'The Greening of the Global Reach', in Wolfgang Sachs (ed), *Global Ecology: A New Arena of Global Conflict* (Halifax: Fernwood Books, 1993), p. 153.

These voices had sought to reveal global ecological disturbances effected by a developmental vision that was predicated on economic priorities. Yet, sustainable development was strategically formulated in a way that obscured, and dissolved, these anomalies. The idea mediated, and normalised, contradictory impulses between ecological disturbances, on one hand, and demands for greater use of raw material resources, on the other.

I argued that sustainable development reframed the lifestyles of the world's poorest peoples—those with minimal pollution, deforestation, and climate change impacts—as the principal causes of environmental problems. It cast those peoples as unsustainable, and called for their reformation—along techno-scientific and financial pathways—to become paragons of developed, industrialised modernity. Meanwhile, sustainable development framed the rich's affluent lifestyles as pathways to salvation. This, I added, made economic growth the principal focus of international law's approach to environmental problems. It reiterated a vision of environmentalism as being consistent with growth. The concept also negated the possibility that such growth was limited by environmental factors. Furthermore, sustainable development's logic vested greater management and control to those who had successfully represented themselves as detached from the earthly cradle—certain governments, elite minorities, and international institutions—to oversee the world from a superior standpoint above it.

Nevertheless, I observed that many peoples contested this framing. They appeared to recognise the violence of homogenisation, and erasure of diversity, embedded in its logic. Proponents of these counternarratives sought instead to make visible alternative cultural heritages, knowledges, aspirations, and environmental approaches. Specifically, these approaches included lowering production and consumption patterns, pursuing calls for 'environmental justice', as well as simply seeking greater autonomy over own destinies. Within this context, the story I have presented in this chapter involves multiple, overlapping, and contested notions of the environment.[747] Yet, these claims—and the radical potential of those peoples living 'on the ground'—were co-opted through a range a tactics that were deployed to secure consensus. In charting this interplay, I also revealed how the WCED and Rio Earth Summit stabilised the logic of sustainable development, which became deployed as a way to sustain the global order.

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[747] Michel Foucault, 'What Is An Author?' in Paul Rabinow (ed) *The Foucault Reader*, (Vintage Books, 2010), p. 101.

In conclusion, the effect of these interrelated conferences was not to dispense with—or reconstitute—pre-existing hegemonies. Rather, it elevated a set of stories—and relationship to a particular notion of development—to a transcendent level. This turn to a global ('de-earthed') vision helped to conceal international law's potential to accommodate other stories. By the same token, the realities of life 'on the ground'—namely, its real conflicts and oppositions—were given scant consideration. Law's ability to attenuate itself to these voices was then lost from view. This also wiped away any notion of contestation to the apparently unified vision. Yet, as I show in the following chapter, further anxieties with regard to this led to yet more reforms to international law's vision of the environment. We shall see how these gradually embedded smaller scales of locality into the global, which served to enlarge the operation of market fundamentalism.

CHAPTER SIX

APPROPRIATING LOCALITY, SUSTAINING MARKET FUNDAMENTALISM

'Men fight and lose the battle, and the thing that they fought for comes about in spite of their defeat, and then it turns out not to be what they meant, and other men have to fight for what they meant under another name.'

— William Morris, *A Dream of John Ball* (1888)[748]

Introduction

The Great Pacific Garbage Patch is the world's largest collection of floating waste. It was discovered by yachtsman in the late-1990s between Hawaii and California.[749] Ocean currents collect debris in what is now a million square mile floating archipelago. The majority of it comprises over 79,000 metric tonnes of plastic debris. Microplastics allegedly comprise 94 per cent of around 1.8 trillion pieces of plastic in the patch. Plastic fishing nets, and other fishing industry waste, account for the majority of this waste.[750] The patch, however, represents only a fraction of 6.3 billion tonnes of plastic waste that has now built up in the world's landfills and oceans.[751] The proliferation of this type of waste—particularly since the 1950s—has been widely depicted in literature. Made up of synthetic 'polymers'—derived from the Greek words for 'many' (*poly*) and 'parts' (*mer*)—these repeating molecular structures were not intended to easily disintegrate. On the contrary, they were designed with durability and longevity in mind.[752] They have since become a ubiquitous convenience: cheap,

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[748] William Morris, *A Dream of John Ball* (London: Booklasic, 2015) [1888], p. 22.
[749] Laura Parker, 'The Great Pacific Garbage Patch Isn't What You Think it Is', *National Geographic* (online), 22 March 2018, available at: <https://news.nationalgeographic.com/2018/03/great-pacific-garbage-patch-plastics-environment> (last accessed on 30 March 2018).
[750] Laurent Lebreton, Boyan Slat, Francesco Ferrari, Bruno Sainte-Rose, Jen Aitken, Bob Marthouse, Sara Hajbane, Serena Cunsolo, Anna Schwarz, Aurore Levivier, Kim Noble, Pavla Debeljak, Hanna Maral, Rosanna Schoeneich-Argent, Roberto Brambini, and Julia Reisser, 'Evidence that the Great Pacific Garbage Patch is rapidly accumulating plastic' (2018) 8(4666) *Scientific Reports* 1.
[751] Laura Parker, 'Plastics' (2018) 6 *National Geographic USA* 40, 49. See also, World Economic Forum, *The New Plastics Economy: Rethinking the future of plastics* (Geneva: WEF, 2016), available at: <http://www3.weforum.org/docs/WEF_The_New_Plastics_Economy.pdf> (last accessed on 21 January 2017), p. 7. See also, Simon Jennings, Frédéric Mélin, Julia L Blanchard, Rodney M Forster, Nicholas K Dulvy, Rod W Wilson, 'Global-scale predictions of community and ecosystem properties from simple ecological theory' (2008) 275(1641) *Proceedings of the Royal Society B* 1375.
[752] Susan Freinkel, *Plastic: A Toxic Love Story* (Boston: Houghton Mifflin Harcourt, 2011), p. 7.

adaptable, and widely used. They became known as plastics—originating from the Greek word *plastikos*—due to their infinite capacity to be shaped and moulded.

I suggest, in this chapter, that international law's post-Rio vision of the environment shares several similar characteristics.[753] Like plastic, the vision has now become ubiquitous. Overwhelmingly, this is partly attributable to the flourishing of international legal instruments in the years after the Rio Earth Summit. The moment marked an expansion of international regulations over environmental matters. Yet, this coincided with a narrowing of perceptions toward the idea of the environment itself. Greater participation of actors in codifying laws regulating the environment also brought with it a more diverse range of perspectives. This led to heightened attempts to destabilise what were, by now, persistently dominant ('neoliberal')[754] perceptions toward the environment. The question to which I wish to turn, therefore, is how international laws and institutions responded to these competing, counter-hegemonic logics. I argue that the outcome was not merely a compromise between opposing forces.[755] Rather, the present chapter investigates how the environment became a ubiquitous, durable, and malleable device with which to sustain a hegemonic global order, being both determinative and responsive to those logics and languages existing beyond it.[756]

My argument consists of three sections. In the first section, I argue that actors buttressed a trade-friendly, marketised global order in two ways: firstly, by diluting the mandates

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[753] Here, I use the word 'polymer'—rather than 'plastic'—so as to avoid any direct engagement with Catherine Malabou's concept of 'plasticity', which some describe as a 'triple movement of receiving, giving and destroying form'. However, I acknowledge that there may be resonances with her work. See Alberto Toscano, 'Plasticity, Capital, and the Dialectic', in Brenna Bhandar & Jonathan Goldberg-Hillier (eds), *Plastic Materialities: Politics, Legality, and Metamorphosis in the Work of Catherine Malabou* (Durham: Duke University Press, 2015), p. 110.

[754] According to some scholars, '[t[he ideologically hegemonic position has been the neo-liberal agenda (widely called the Washington Consensus). It calls for trade and financial liberalisation, privatisation, deregulation, openness to foreign direct investment, a competitive exchange rate, fiscal discipline, lower taxes, and smaller government'. See William K Tabb, *Economic Governance in the Age of Globalisation* (New York: Columbia University Press, 2004), p. 3. The admission that the welfare benefits of globalisation were 'overstated' has led to 'post-Washington Consensus policies that maintain a neo-liberal approach to globalisation, pursuing privatisation, liberalisation and deregulation'. See, for example, Paul Krugman, 'Globalisation and Welfare', in United Nations Research Institute for Social Development (UNRISD), 'The Sources of Neoliberal Globalization' (2002) 2 *Report of UNRISD Seminar on Improving Knowledge on Social Development in International Organizations* 4.

[755] For an excellent alternative argument advanced by Annelise Riles on this point, see Annelise Riles, 'Infinity within the Brackets' (1998) 25(3) *American Ethnologist* 378.

[756] For a similar argument on law more generally, see Peter Fitzpatrick, *Modernism and the Grounds of Law* (Cambridge: Cambridge University Press, 2001). See also, Fitzpatrick's elaboration of 'receptive creativity' in Peter Fitzpatrick, 'Reading slowly: The law of literature and the literature of law', in Ruth Buchanan, Stewart Motha, and Sundhya Pahuja, *Reading Modern Law: Critical Methodologies and Sovereign Formations* (London: Routledge, 2012), p. 194.

and activities of institutions created to pursue environmental agendas, so as to neutralise challenges to the existing order; and secondly, to imagine environmental problems as a series of rectifiable 'market failures'. Following this, Section II examines how key political leaders responded to critiques by operationalising what became known as the 'green economy'. Above all, it envisioned importing new classes of assets—in so-called natural capital and 'environmental goods and services'—into economic thinking. These sought to assign monetary values to previously unpriced resources, and promote flexible regulatory regimes, through the operation of market mechanisms. Finally, Section III observes how recent legal instruments—the Sustainable Development Goals ('SDGs') and the Paris Climate Agreement—have sought to consolidate dominant logics, principally by preserving models of industrial export-based trade and market growth. Examining these instruments, particularly the underlying logics and normative visions embedded in their construction, I suggest that they may make an authentic reimagining of environmental governance more difficult to accomplish.

I. Law's Neoliberal Orientations: Marketising Ecologies

Initially, the Rio Declaration was met by many social groups and scholars with derision. Wolfgang Sachs, for example, saw it as avoiding necessary discussions about how to change the global economy's trajectory.[757] Similarly, Martin Holdgate claimed that it 'left a mountain of problems untackled' and that countless 'fundamental questions were side-stepped'.[758] Others disparaged the Declaration's unwieldly, vague, and excessively cautious provisions, which lacked binding force. In this vein, some ecologists—including Nicholas Hildyard—claimed that parties weakened UNEP by allowing United Nations agencies to appropriate and transform the environment into a development issue. He, along with several others, felt that the World Bank was the Declaration's greatest beneficiary. The Bank avoided any obligation to alter its operations, while increasing its funding by acquiring greater funding through its control of an expanded Global Environmental Fund ('GEF').[759] Meanwhile, Rosa Koire—founder of the Post-Sustainability Institute—considered the Agenda 21 action plan as a hegemonic instrument:

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[757] Wolfgang Sachs, 'Global ecology and the shadow of "development"', in Wolfgang Sachs, *Global Ecology: A New Arena of Political Conflict* (London: Zed Books, 1993), p. 10.
[758] Martin W Holdgate, 'Questions about Rio' (1992) 21(3) *IUCN Bulletin* 2.
[759] Nicholas Hildyard, 'Foxes in charge of the chickens', in Wolfgang Sachs, *Global ecology: a new arena of political conflict* (London: Zed Books, 1993), p. 22.

> ‘implemented worldwide to inventory and control all land, all water, all minerals, all plants, all animals, all construction, all means of production, all energy, all education, all information, and all human beings in the world’.[760]

It represented, she suggested, an unprecedented set of policies—masquerading as environmentalism—through which a minority class of global elites could exploit a majority of the world’s population. If implemented, Koire argued that the Action Plan’s provisions—which she described as seeking to confer property rights over the environment for the exclusive pleasure of corporations and a rich minority of peoples—could bring about ‘the greatest transfer of wealth’ in recorded memory away from the world’s poor.[761] Her denunciation was shared by scholars, like Sylvie Brunel, who considered the ‘elitist vision of sustainable development’ a strategy for wealthy people to defend their high resource-consuming lifestyles by attacking the lifestyles of the poor. She feared that it would turn nature into a ‘museum’ of plants and animals, to be kept for the enjoyment of the wealthy, while depriving the poor of its benefits.[762] These critiques, by Brunel and Koire respectively, reflected positions drawn from across the spectrum of mainstream Euro-American politics. Both sets of critiques were, however, grounded on notions of economic wellbeing. As such, their efforts sought to challenge problems associated with rapidly changing ecologies, while at the same time preserving the politico-economic logics that underpinned the pre-existing global order. In other words, they attempted to justify their claims using the epistemology of their adversaries. They sought, in Pratap Chatterjee and Matthias Finger’s words, to uphold a logic in which:

> ‘old thinking about economic growth prevails, old institutions promoting such growth persist, and the old development establishment that had made a living out of such economic growth has repackaged itself in green and miraculously represented itself as the new global environmental leaders’.[763]

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[760] Rosa Koire, ‘What is the United Nations Agenda 21?’, *The Post-Sustainability Institute* (online), available at <https://www.postsustainabilityinstitute.org/what-is-un-agenda-21.html> (last accessed on 27 March 2018).
[761] Ibid.
[762] Sylvie Brunel, *Le development durable* (Paris: Presses Universitaires de France, pp. 116-118, quoted in Iris Borowy, *Defining Sustainable Development for Our Common Future: A History of the World Commission on Environment and Development (Brundtland Commission)* (London: Routledge, 2014), p. 200.
[763] Pratap Chatterjee and Matthias Finger, *The Earth Brokers: Power, Politics and World Development* (Abingdon: Routledge, 1994), p. 162.

Much of this alignment with—and durability of—economic interests was, according to Naomi Klein, attributable to the actions of environmental NGOs. Desiring recognition as 'serious' players in environmental governance, some powerful organisations—like the Environmental Defense Fund and the Nature Conservancy—portrayed environmental issues as 'narrow technical problems with no end of profitable solutions within the market system'.[764] For example, Klein reveals that these NGOs partnered large multinational corporations—such as FedEx, General Motors and Walmart—to redefine the problem of climate change. In so doing, they presented climate change as driven by circumstances other than material overconsumption, high-emissions industrial agriculture, internal combustion engines, or an internal trade system that largely ignored the effects of transporting commodities over vast geographical distances. Discussion of such issues would have led to demands for fundamental changes to the global economic order, and to the structure of industrial societies: including how people 'live, work, eat, and shop'.[765] Evidence suggests that some transnational NGOs even acted as 'constricting forces' that 'softened radical analysis' in exchange for 'minimal access to the halls of power'.[766]

Buoyed by these organisations, and armed with their logics, many states sought to implement the Rio Declaration and Agenda 21 through a vast array of international legal-institutional instruments. Certainly, their sheer volume might have been great cause for optimism. Over the following decade—from 1993 to 2002—states built upon what they had agreed at Rio with over 5,505 international agreements, amendments, protocols, declarations, and resolutions.[767] The first such post-Rio initiative, agreed through the United Nations, was to create the Commission on Sustainable Development ('CSD') in November 1992. Agreed soon after the delegates left Rio, it gave some indication of how they intended the regime to blossom: particularly through its hidden logics, interests, and privileged actors. A permanent body with a small secretariat, its intention was to 'monitor implementation' of the Rio Declaration. The CSD's Chair, Razali Ismail of Malaysia, called it 'arguably the main tangible accomplishment of the Rio Summit'.[768]

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[764] Klein (2014), p. 210.
[765] Ibid.
[766] Tim Simons and Ali Tonack, 'The Dead End of Climate Justice', *counterpunch* (online), 8 January 2010, available at: <https://www.counterpunch.org/2010/01/08/the-dead-end-of-climate-justice> (last accessed on 12 April 2018), p. 10.
[767] Ronald B Mitchell, 'International Environmental Agreements Database Project', Version 2018.1, available at: <https://iea.uoregon.edu/base-agreement-list?field_inclusion_value=BEA&sig_year%5Bmin%5D=1995&sig_year%5Bmax%5D=1999> (last accessed 11 August 2018).
[768] 'Representatives from 53 Nations Meet to Organize Sustainable Development Unit' (1993) 5 *International Environmental Reports* 155, 155.

The Commission's purpose—setting the tone for subsequent mechanisms (such as those established through the Paris Agreement, which I will address in Section III below)—was to generate sufficient publicity so as to make it politically imprudent for parties to renege from their obligations under the Declaration.

Nonetheless, the body's mandate was also left deliberately vague. Its vast functions were also underfunded. This operated such that the CSD did not disturb the intersecting work of competing international institutions. As a consequence—a United Nations review pointed out in 2012—its 'review of and impact on implementation of sustainable development remained weak and it was not able to adequately respond flexibly to new and emerging issues'.[769] The Commission's work was stretched across 'too many issues' and priorities.[770] Its reputation as a body concerned only with a narrow set of environmental issues also dissuaded participation from stakeholders outside this community. Moreover, the CSD's reporting guidelines were highly generalised and not comparable with either one another, or the guidelines of its partnering institutions. Many Third World governments had expressed concerns that information from their national reports could be linked with development funding. On this rationale, they opposed the CSD Secretariat's attempts to establish standardised forms or reporting guidelines, which could potentially have allowed for comparisons between them. Some other countries—like Australia and Norway—agreed, adding that reports be limited only to issues discussed during a particular session of the commission, and should be as brief and concise as possible.[771]

Consequently, summaries produced by the Secretariat were so limited in scope, and presented in such general terms, that it was difficult to draw many meaningful conclusions from them. As a result, the CSD never completed a periodic review of national

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[769] United Nations, *Lessons learned from the Commission on Sustainable Development: Report of the Secretary General*, 21 February 2013, available at: <https://sustainabledevelopment.un.org/content/documents/1676SG%20report%20on%20CSD%20lessons%20learned_advance%20unedited%20copy_26%20Feb%2013.pdf> (last accessed on 12 March 2018), para. 19. See also, Alan E Birnie, and Patricia Boyle, *International Environmental Law and the Environment* (Oxford: Oxford University Press, 2002), p. 52.

[770] *Lessons learned from the Commission on Sustainable Development* (2013), para. 44. See also, United Nations, '*Delivering as One': Report of the High-level Panel on UN System-wide Coherence in the areas of Development, Humanitarian Assistance and the Environment* (New York: UN, 2006), para. 44.

[771] International Institute for Sustainable Development ('IISD'), 5(12) *Earth Negotiations Bulletin*, 28 June 1993, p. 3. See also, Pamela S Chasek, 'The United Nations Commission on Sustainable Development: The First Five Years', *United Nations University Working Paper*, available at: <http://archive.unu.edu/ona/PDF/Papers/Chasek,%20PAPER.pdf> (last accessed on 12 March 2018).

sustainable development strategies—which its mandate had required—before the body was replaced by a High-Level Political Forum on Sustainable Development in September 2013.[772] So, while taking steps to placate the majority of mainstream environmentalists, at least on paper, its central institutional regime was eviscerated of content and funding by some of the very states that had brought it into being. This outcome aligned with the interests of those seeking to preserve a dominant formation of global ordering.

In another notable move, the 1997 Kyoto Protocol to the United Nations Framework Convention on Climate Change ('UNFCCC') was agreed five years after the Rio Earth Summit.[773] From its legal-institutional foundations at Rio, it eventually grew into one of the most intricate international environmental instruments. Much of its complexity, and subsidiary instruments, were devoted to its three 'flexibility mechanisms': 'International Emissions Trading', 'Joint Implementation', and the 'Clean Development Mechanism' ('CDM').[774] These mechanisms set the regime on a course toward the pursuit of greater financialisation as an environmental conservation strategy, a technique that eventually found its way into other areas of environmental governance. The largest and most prominent of these—at least in potential emissions reduction and financial terms—was the CDM. This mechanism emerged in response to some critiques made against the Rio Declaration by the Brazilian government, on the basis that the Declaration had not led to adequate transfers of finance and technology to Third World states. In response, Brazilian representatives proposed the establishment of a 'clean development fund'.[775] Intended to impose fines on countries failing to meet their quantified emissions reduction targets, it was envisioned that this mechanism would generate proceeds that could then be diverted to finance low-carbon development projects in Third World countries.

Rejecting this proposal, however, some countries—such as the United States—opposed any attempts to impose penalties (either pecuniary or otherwise) for non-compliance. They feared such measures might damage their trade competitiveness in international markets, or dissuade investment in the country's domestic industries. Therefore, United States representatives proposed an alternative whereby countries could—in order to

[772] *Lessons learned from the Commission on Sustainable Development* (2013), para. 24.
[773] *Kyoto Protocol to the United Nations Framework Convention on Climate Change*, opened for signature 16 March 1998, 2303 UNTS 148 (entered into force on 16 February 2005) ('Kyoto Protocol'), Art. 12.
[774] Ibid, Art. 12(2).
[775] Ariel Dinar, Donald F Larson, and Shaikh M Rahman, *The Clean Development Mechanism: An Early History of Unanticipated Outcomes* (Singapore: World Scientific, 2013), p. 269.

reduce their so-called Quantified Emissions Limitations and Reduction Obligations ('QELROs') under the Convention—voluntarily invest in low-carbon projects in Third World countries. In the United Nations Secretary-General's words, First World countries could 'use the market to trade a new commodity: carbon'.[776] This supposedly offered common benefits: for First and Third World countries, multinational corporations, and the global environment alike.

By the eleventh-hour of the Kyoto negotiations, many other countries—across geopolitical divisions—had expressed strong opposition to these mechanisms. European Union member states, for example, initially expressed negativity toward the proposal. Its representatives had already successfully lobbied for First World states to take on binding and individually-comparable QELROs. These European states considered—as a means to lessen impacts on international competitiveness—that each country should enact policies to reduce their emissions domestically, rather than simply purchasing reductions from other countries.[777] On this rationale, the European Union was particularly opposed to these market-based proposals, which combined the idea of 'capping' greenhouse gases in First World countries—or setting atmospheric 'limits' on emissions—with an innovative set of legal-institutional mechanisms to create financial markets in tradeable carbon permits. European countries thought any attempts to allow countries with quantitative limits to purchase and trade emissions from other countries—for the purposes of achieving QELROs—would circumvent the Protocol's objectives.

Addressing this opposition, however, United States Vice-President Al Gore, who led his country's delegation, saw the mechanisms as 'safety valves' against any possibility of non-compliance with emissions targets. He demanded the inclusion of flexibility mechanisms as concessions for acceptance, by the United States, of binding QELROs. These quantified obligations were features that European and G-77 countries considered essential to any agreement.[778] Recalling the market-based sulphur dioxide and nitrogen dioxide trading scheme in the United States—which had, by this stage, already been pioneered to reduce atmospheric levels of gases causing acid rain—Gore argued that

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[776] United Nations, 'In message to Kyoto Protocol Ceremony, Secretary-General calls on world community to "be bold", quickly take next steps against climate change', UN Doc SG/SM/9721-Env/dev/821, <http://www.un.org/press/en/2005/sgsm9721.doc.htm> (last accessed on 19 January 2018).
[777] European Commission, 'Climate Change – The EU Approach to Kyoto', 1 October 1997, EC Doc COM (1997) 481, pp. 18-19.
[778] Andrew Jordan, *Environmental Policy in the European Union* (Abingdon: Routledge, 2005), p. 265. See also, George Monbiot, *Heat: How to Stop the Planet Burning* (London: Allen Lane, 2006), p. 42.

similar measures could be implemented, on a voluntary basis, to reduce greenhouse gas emissions. Facing a potential refusal by the United States to agree to the Protocol, actors who had previously resisted the measures withdrew their opposition: a seemingly necessary trade-off for securing consensus. Acquiescence to such a 'Faustian bargain', many of these actors concurred, was a necessary step in the incremental evolution of the regime.

In essence, these dynamics sharpened perceptions about the environment within international law, but in a very particular way. Rather than fundamentally changing pre-existing views, states responded to critiques by reconceptualising the environment—and more specifically, the earth's atmosphere—as a measurable, quantifiable set of units. Framed as such, greenhouse gases became capable of being traded, and 'offset', to achieve climate objectives without any corresponding need to change high-emissions lifestyles of affluent peoples. Some refer to this phenomenon—of maintaining consumption patterns of the rich at the expense of Third World states, and the world's poorest people—as 'carbon colonialism'.[779] Martin Luther King Jr might have cast this as the creation of 'islands of material prosperity', while dumping the waste by-products into 'oceans of poverty'.[780] Framed as such, the necessary expertise was located exclusively within the First World. Following this logic, climate change was then rectifiable through use of the First World's limitless technological and financial capabilities. This framing transformed visions of greenhouse gases. What was once something maligned as a pollutant now became an economically-productive object, a flexible means for market expansion.

Furthermore, this logic relied on several additional assumptions about humanity's relationship with the environment. It projected a techno-utopian depiction of a world running on improved technologies: including those designed to improve the recyclability of plastics. This depiction supposedly assured the eventual attainment of sustainable usage patterns over finite raw materials. The logic also assumed that innovation and production of these future technologies would certainly occur within sufficient

[779] See, for example, Anil Agarwal and Sunita Narain, *Global Warming in an Unequal World: A Case for Environmental Colonialism* (New Delhi: Centre of Science and the Environment, 1990), p. 15.
[780] Martin Luther King, 'I Have a Dream' (Washington DC, 1963), *BBC News* (online), 28 January 2011 <http://news.bbc.co.uk/2/hi/americas/3170387.stm> (last accessed on 10 April 2018). See also, Martin Luther King, 'The Quest for Peace and Justices' (Nobel Peace Prize Lecture, Stockholm, 11 December 1964) <http://www.nobelprize.org/nobel_prizes/peace/laureates/1964/king-lecture.html> (last accessed on 10 April 2018).

timeframes to avert irreversible climate change, pollution, and halt biodiversity loss. Enlarging financial investments—specifically by public-private sector actors—was a vital linchpin to achieving this vision. Stated alternatively, such attitudes revitalised conceptions of the environment as tethered to techno-scientific and financial referents. Ultimately, they elevated the role of 'human capital' as primary ingredients for delivering environmental solutions. Compelling actors to frame their arguments—and claims to justice—in terms of these referents, these logics also disavowed more radical, non-orthodox perspectives, which were aimed at galvanising more fundamental changes in attitudes toward the natural world. This revealed the regime's postcolonial dimension.

Hortatory announcements in support of the flexibility mechanisms—particularly the CDM—also masked a number of significant, and well-known, distributional problems. Two of these, in particular, stand out for the purposes of my central argument. Firstly, CDM projects were disproportionately skewed toward Asia-Pacific countries (in which over 80 per cent of CDM projects were implemented by 2012), while only 2.9 per cent were established in African countries. Chinese companies, alone, earned approximately 70 per cent of all credits generated from CDM projects.[781] The bulk of renewable energy projects also involved constructing large hydroelectric dams—some socio-ecological effects of which I described in Chapter Three—while merely 0.12 per cent were sourced from solar projects. Secondly, around 54 per cent of all credits were generated from refrigerant gases reduction projects. A handful of Chinese and Indian companies exploited lax guidelines and methodologies to generate allowances—totalling approximately US$5.75 billion[782]—by deliberately producing refrigerants purely in order to generate CDM credits. So, rather than reducing operations, the CDM facilitated a boom in the industry.

These brief examples highlight an even more fundamental point. The CDM, and other market mechanisms, condensed fundamentally different socio-political preferences into quantitatively equivalent metrics. Yet, this seemingly neutral and scientific exercise obscured the reality that climate change is not exclusively a scientific—or objective—

[781] UNEP, 'CDM Pipeline', available at <http://cdmpipeline.org/cdm-projects-type.htm> (Accessed on 19 January 2018).
[782] See, for example, Igor Shishlov and Valentin Bellassen, '10 Lessons From 10 Years of the CDM', *Climate Report of CDC Climat Research*, October 2012, available at: <http://www.cdcclimat.com/IMG/pdf/12-10-05_climate_report_37_-_10_lessons_from_10_years_of_cdm.pdf> (last accessed on 17 January 2018).

problem. It is clear, for example, that a tonne of emissions produced from luxury goods in the United Kingdom is not in fact equivalent—in social or political terms—to a tonne of carbon emitted to operate a school in Malawi. Similarly, 'luxury' emissions—such as from flying affluent tourists across the world—are not comparable to the same amount of emissions from constructing solar panels to electrify a rural village.

Put alternatively, there is little 'equivalence' in either these activities, or the resulting greenhouse gases emitted from them. Offsetting carbon dioxide emitted from European installations by reducing superfluous refrigerants in China is problematic if the objective is to transition national economies away from dependence on fossil fuels. Nonetheless, the Kyoto flexibility mechanisms rely on substituting different types of greenhouse gases with each other. These gases are made comparable through complex calculations—approved by member states—with reference to what is known as 'carbon dioxide equivalence'.[783] Such attempts to make different greenhouse gases numerically equivalent shrouds visibility of the deeper socio-political characteristics around which they are emitted. Yet, these processes are enshrined, through state consensus, in positive law. This status gives them—and carbon markets more generally—the appearance of virtuousness, and the substance of what we believe to be just conduct.

II. Pride, Conceit, and the Emperor's New Clothes

As it turned out, the Kyoto flexibility mechanisms—and particularly, the CDM—generated enormous flows of public-private finance to multinational corporations and Third World countries. As such, they were eventually labelled by many as an 'unexpected success story' of the Kyoto Protocol.[784] The mechanisms even displayed a resilience against notable predictions—made by some during the 2008 Global Financial Crisis—of neoliberal globalisation's imminent demise.[785] Indeed, the Kyoto mechanisms offered a

[783] These are modelled on International Panel on Climate Change guidelines, a critique of which is the focus of Clark A Miller, 'Climate Science and the Making of Global Political Order', in Sheila Jasanoff (ed), *States of Knowledge: The Co-Production of Science and the Social Order* (London: Routledge, 2004).

[784] David B Sandalow, 'Emissions trading is Kyoto's success story', *The New York Times* (online), 17 February 2005, available at: <http://www.nytimes.com/2005/02/16/opinion/16iht-edsandalow.html?_r=0> (last accessed on 20 January 2016).

[785] See, for example, Joseph E Stiglitz, 'Is There a Post-Washington Consensus Consensus', in Narcis Serra and Joseph E Stiglitz, *The Washington Consensus Reconsidered: Towards a New Global Governance* (Oxford: Oxford University Press, 2008); Immanuel Wallerstein, 'The Demise of Neoliberal Globalization', *YaleGlobal Online*, 4 February 2008, available at:

vehicle through which to sustain a pre-existing, trade-friendly, financialised, techno-scientific, and market-oriented global order. In the first subsection, I highlight the actions of key international institutions to promote the green economy, as well as the struggles of actors working through those legal-institutions to oppose it. The following subsection illuminates how convergence on the idea of the green economy served as a basis for expanding marketisation of the environment. It achieves this by framing rapidly-changing environmental conditions as threats to the global economy's expansion. This is increasingly fulfilled through moves—through international law and institutions—to calculate natural capital, and so-called 'payments for environmental goods and services' ('PES'). With these, the entire environmental realm is deemed as a legitimate space for, and subjected to, international interventions to create the laws and institutions necessary for enlarged markets to function.

2.1. Greening the Colour of Money

Prior to 2009, the term 'green economy' was scarcely used. Similar phrases—such as 'green economics'—found some usage, however, by political parties and environmental campaigners. Environmental scholars Molly Cato and Miriam Kennett wrote in 1999, for example, that green economics was 'inherently concerned with social justice'. They described it as having 'grown from the bottom up' as a result of efforts from 'those who are building a sustainable economy in practice'.[786] With this, they framed green economics as amalgamating demands made by environmental justice advocates with economic objectives. Before that, the term was used in the title of a 1989 report—entitled 'Blueprint for a Green Economy'—authored by a group of environmental economists for the United Kingdom government.[787] Nevertheless, its usage appeared to be an afterthought, as the report made no further reference to the green economy.

Facing their own crises of legitimacy—particularly from their failure to prevent the 2008 Global Financial Crisis—a number of international institutions responded by advocating

<https://yaleglobal.yale.edu/content/2008-demise-neoliberal-globalization> (last accessed on 11 January 2017).

[786] Molly Scott Cato and Miriam Kennett, *Green Economics: Beyond Supply and Demand to Meeting People's Needs* (Aberystwyth: Green Audit, 1999).

[787] David W Pearce, Anil Markandya, and Edward B Barbier, *Blueprint for a Green Economy* (London: Earthscan, 1989).

for a 'green new deal'.[788] Sensing a need to bolster their own reputations against accusations of systemic deficiencies and inadequate oversight, three international institutions—the World Bank, OECD, and UNEP—collectively revived the term 'green economy' in 2011. Iceland's environmental agency head recalled, several years later, that their attitude was one of 'not let[ting] a good crisis go to waste'.[789] Accordingly, these institutions repurposed the green economy as a model to 'improving human wellbeing and social equity, while reducing environmental risks and scarcities'.[790] It seemed, as Deutsche Bank had predicted as early as 2008, that the Global Financial Crisis 'exposed an unprecedented "green sweet spot" for infrastructure stimulus that promised both social progress and environmental good sense'.[791]

This usage suggested a seamless elision between environmental objectives and sustained economic growth. Importantly, it reflected a view—held by many governments—that the overwhelming purpose of environmental regulation was 'managing the risks to growth from adverse environmental events.[792] According to many ecological economists, this was achievable by valuing the 'world's ecosystems [as] capital assets'.[793] For instance, UNEP Executive Director Achim Steiner first defined the green economy as 'an economic system that recognizes the properties of healthy ecosystems as the backbone of economic and social well-being and as a precondition for poverty reduction'.[794] In the following year, a UNEP report explained that:

> 'In its simplest expression, a green economy is low carbon, resource efficient, and socially inclusive. In a green economy, growth in income and employment should be

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[788] See generally, UNEP, *Global Green New Deal: An Update for the G20 Pittsburgh Summit* (Nairobi: UNEP, 2009), available at: <http://www.unep.org/pdf/G20_policy_brief_Final.pdf> (last accessed on 25 February 2018).
[789] James Crisp, 'Financial crisis can spur green economies, environment bosses told', 9 June 2015, *Euractiv* (online), available at: <https://www.euractiv.com/section/sustainable-dev/news/financial-crisis-can-spur-green-economies-environment-bosses-told> (last accessed on 11 February 2018)
[790] UNEP, *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication* (Nairobi: UNEP, 2011), p. 16.
[791] Deutsche Asset Management, 'Economic Stimulus: The Case for 'Green' Infrastructure, Energy Security and 'Green' Jobs', November 2008, <https://www.db.com/cr/en/docs/Inv_in_CC_2012.pdf> (last accessed on 11 February 2018), p. 4.
[792] Tim Everett, Mallika Ishwaran, Gian P Ansaloni, and Alex Rubin, *Economic Growth and the Environmen*t (London: UK Department for the Environment, Food and Rural Affairs), p. 12.
[793] See, for example, Gretchen Daily, Tore Soderqvist, Sara Aniyar, Kenneth Arrow, Partha Dasgupta, Paul R Ehrlich, Carl Folke, AnnMari Jansson, Bengt-Owe Jansson, Nils Kautsky, Simon Levin, Jane Lubchenco, Karl-Goran Maler, David Simpson, David Starrett, David Tilman, and Brian Walker, 'The value of nature and the nature of value' (2000) *Science* 289, 395.
[794] Achim Steiner, 'Focusing on the Good or the Bad: What Can International Environmental Law Do to Accelerate the Transition Towards a Green Economy?' (2010) *American University International Law Review* 843, 847.

> driven by public and private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services. […] The key aim for a transition to a green economy is to enable economic growth and investment while increasing environmental quality and social inclusiveness.'[795]

This UNEP report, entitled *Towards a Green Economy*, represented markets as primary determiners of value. It stated that 'markets comprise one of the key areas of green finance and provide an important discovery mechanism for the price of carbon'. The market was positioned as a universal referent outside politics, with UNEP insisting that a green economy 'does not favour one political perspective over another'. Rather, it was considered 'relevant to all economies'.[796] The United Nations offered further details in subsequent report, in which it called the green economy a 'system in which the costs arising from the degradation of ecosystems are internalised'. In this system, industries that operationalised sustainable technologies and agriculture could 'serve as major engines of economic growth, job creation, and poverty reduction'.[797] Nevertheless, its distinctiveness—from what the Bank labelled as the 'brown economy'—was cast in terms of generating 'economic benefits'.[798] It represented a shift in emphasis—to improved investments and managerial decision making—rather than any fundamental change of logic. As one NGO claimed, this framing did not critique dominant models of exploiting 'economic and social inequalities to create wealth', or the 'taking advantage of asymmetric market, trade, and financial mechanisms'.[799] Rather, sustaining growth was at the core of the Bank's concerns.

Consequently, the green economy became conceptualised in a way that sought to reconcile environmental objectives with the logics of trade, globalised markets, and sustainable development. In so doing, it foreclosed any opposition between these potentially-disparate logics. It overcame the need to make difficult political trade-offs.

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[795] UNEP (2011), p. 16.
[796] Ibid 7.
[797] UNEP and United Nations Office of the High Commissioner for Human Rights, *Human Rights and the Environment* (Nairobi: UNON Publishing, 2012), p. 8.
[798] Uwe Deichmann and Fan Zhang, *Growing Green: The Economic Benefits of Climate Action* (Washington DC: World Bank, 2013), p. 1.
[799] Pio Verzola Jr and Paul Quintos, 'Green Economy: Gain or Pain for the Earth's Poor', *IBON International Policy Brief*, November 2011, available at: <http://rio20.net/wp-content/uploads/2011/11/IBON-Policy-Brief-on-Green-Economy.pdf> (last accessed on 25 February 2018), p. 4.

Attributing environmental problems to the 'gross misallocation of capital' denied any 'inescapable trade-off between environmental sustainability and economic progress'.[800] To the contrary, the green economy reemphasised that 'economic growth, social progress and environmental stewardship' could be 'complementary strategic objectives'.[801] As I have observed through carbon trading, however, policies devised with this objective in mind provoked new problems and conflicts. In Naomi Klein's observation, this apparent 'win-win strategy' created 'a lot of losers'. These were people 'sacrificed in the name of win-win'.[802]

Even some World Bank officials seemed to acknowledge this, at least in part. Kristina Georgieva—Director of the Bank's Environmental Division—stated: 'I've never seen a real win-win in my life. There's always somebody, usually an elite group grabbing rents, that loses. And we've learned in the past decade that those losers fight hard to make sure that technically elegant win-win policies do not get very far.'[803] In light of this, the Bank admitted that it could 'not presume that green growth [would be] inherently inclusive'. Nonetheless, it immediately sought to downplay this observation. If only 'carefully designed', the Bank wrote, green economy policies could potentially 'maximise benefits for, and minimise costs to, the poor and most vulnerable'.[804] What remains striking in this carefully-constructed logic is the Bank's neglect for discussing any possible flaws with the green economy principle itself, rather than those of its implementation.

Discussions about the green economy were focal points of proceedings leading to a highly-anticipated conference marking the 20-year anniversary of the 1992 Rio Declaration. Aptly designated as the Rio+20 Conference, it was held once again in Rio de Janeiro at the invitation of the Brazilian government. Member states agreed that the green economy would be the central theme of a Rio+20 Conference convened to address deep concerns about a persistent 'gaps' in implementing sustainable development and

[800] UNEP (2011), p. 16.
[801] Ibid v.
[802] Klein (2014), p. 117.
[803] 'The great race', *The Economist* (online), available at: <https://www.economist.com/special-report/2002/07/04/the-great-race> (last accessed on 30 November 2018).
[804] World Bank Group, *Inclusive Green Growth: The Pathway to Sustainable Development* (Washington DC: IBRD, 2012), p. xi.

poverty eradication efforts.[805] During its preparatory sessions, many states—sharing underlying attitudes advocated by the Bank and UNEP—revealed preferences for legislating the green economy as a new 'one-size-fits-all' model, or 'pathway', for achieving sustainable development.[806] Some Third World representatives, however, expressed significant unease about the concept. The same wealthy, technologically-advanced states that promoted the green economy, they argued, had previously made 'many commitments' that had 'not been fully met'. In particular, a number of countries argued that few efforts had yet been made—since as far back as the Stockholm Conference—to ensure that environmentally-friendly technologies would be transferred to Third World economies.[807]

With this in mind, some Third World representatives opposed attempts to displace sustainable development with the outwardly-narrower idea of the green economy. Some underscored that the green economy should not emerge as a 'normative straitjacket'. Nor, others argued, should it 'alter the agreed definition' of sustainable development.[808] At the heart of their concerns, was a deep resistance to any attempts to interpret the green economy in ways that could impose trade restrictions under the pretext of environmental protection.[809] Representatives from Ecuador, for example, expressed concerns that it could 'lead to a new era of structural adjustments', which could undermine the competitiveness of Third World industries and undermine their national sovereignty by dictating Third World countries' economic policies.[810] If allowed to run its course, these

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[805] *Implementation of Agenda 21, the Programme for the Further Implementation of Agenda 21 and the outcomes of the World Summit on Sustainable Development*, GA Res 64/236, UN GAOR, 64th sess, 68th plen mtg, UN Doc A/Res/64/236 (24 December 2009), p. 20.
[806] Ibid 24.
[807] José Antonio Ocampo, *The Transition to a Green Economy: Benefits, Challenges and Risks from a Sustainable Development Perspective* (New York: United Nations, 2011), pp. 3, 7.
[808] Chee Yoke Ling and Saradha Iyer, 'The "green economy" debate unfolds in the UN', *Third World Network Update on Sustainable Development Conference*, 22 May 2010, available at: <http://www.twnside.org.sg/title2/sdc2012/sdc2012.100502.htm> (last accessed on 1 May 2018). See also, formal interventions made by Indian delegates at the First Preparatory Committee ('PrepCom') for the United Nations Conference on Sustainable Development ('UNCSD'). See Earth Negotiations Bulletin, *Summary of the First PrepCom for the United Nations Conference on Sustainable Development: New York*, 17-19 May 2010 (Toronto: Earth Negotiations Bulletin, 2010), available at: <http://www.iisd.ca/download/pdf/enb2701e.pdf> (last accessed on 11 February 2018), p. 5.
[809] See, for example, Statement by Ambassador Abdullah M Alsaidi, Permanent Representative of the Republic of Yemen to the United Nations, Chairman of the Group of 77, *Statement on behalf of the Group of 77 and China at the First Preparatory Committee Meeting of the UNCSD* (delivered at New York on 18 May 2010), available at: <http://www.g77.org/statement/getstatement.php?id=100518> (last accessed on 1 May 2018).
[810] Interventions made by Ecuadorian delegates at the UNCSD Informal Consultations (25 January 2012). See generally, Earth Negotiations Bulletin, *Summary of the UNCSD Informal Consultations*: New York, 25 January 2012 (Toronto: Earth Negotiations Bulletin, 2010), available at: <http://www.iisd.ca/download/pdf/enb2714e.pdf> (last accessed on 1 May 2018).

representatives feared, the green economy could significantly damage Third World economies. At particular risk, some thought, were countries that were reliant upon exports of agricultural commodities. The Bank endorsed this view, stating that the 'best way to accelerate [environmental] technology diffusion is to reduce trade barriers'.[811] Similarly, the head of the Algerian delegation (speaking as Chair of the G-77) cautioned that:

> 'The transition to a green economy should not lead to conditionalities, parameters or standards which might generate unjustified or unilateral restrictions in the areas of trade, financing, [overseas development assistance] or other forms of international assistance. Illegitimate barriers to trade – tariff and non-tariff – could emerge if the discussions are geared towards or captured by protectionist interests, which might ultimately lead to green protectionism' proposals that would run counter to the multilateral trading system.'[812]

As a result of this, the idea of trade liberalisation retained stability in the face of challenges to it. Yet, Bolivian representatives distanced themselves from these views. Many of them repeatedly expressed fears that the concept might merely promote the commodification of ecological processes. In an incisive critique of the Draft Rio+20 Outcome Document, Chief Negotiator of Bolivia, René Orellana indicated that the green economy masked an 'implicit suggestion of free markets with a weak role of the states'.[813] He lamented that the green economy was based merely on the 'commodification of biodiversity open to private investment, and monetary measurement of our natural resources for the creation of green markets'.[814] He joined with other representatives—from some South American states, Small Island states, grassroots social movements, as well as a number of indigenous groups—in warning against what they regarded as the green economy's overreliance on financialisation. Such an approach to global environmental governance, they argued, would likely favour only the interests of private actors and, most of all, multinational corporations. This could create even more problems through the widespread use and diffusion of risky technologies, privatisation, and growth. One appeal made by the Indigenous Peoples Global Conference—which took place on the side-lines of the Rio+20 Conference—stated:

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[811] World Bank (2012), p. 20.
[812] Alsaidi (2010).
[813] Statement by Chief Negotiator of Bolivia, Dr René Orellana, *General Comments on the Draft Zero of the Conference of the UN Sustainable Development* (delivered at New York on 26 January 2012), p. 3.
[814] Ibid.

> 'This inseparable relationship between humans and the Earth, inherent to Indigenous Peoples, must be respected for the sake of our future generations and all of humanity. We urge all humanity to join with us in transforming the social structures, institutions and power relations that underpin our deprivation, oppression and exploitation. Imperialist globalization exploits all that sustains life and damages the Earth. We need to fundamentally reorient production and consumption based on human needs rather than for the boundless accumulation of profit for a few. Society must take collective control of productive resources to meet the needs of sustainable social development and avoid overpopulation, overconsumption and overexploitation of people and nature which are inevitable under the prevailing monopoly capitalist system. We must focus on sustainable communities based on indigenous knowledge, not on capitalist development. […] We demand that the United Nations, governments and corporations abandon false solutions […] that endanger the future and life as we know it.'[815]

This built on a similar set of demands, made two years earlier by a gathering of 466 grassroots civil society groups, indigenous peoples, and governments—calling itself the Climate Justice Action network. In a leaflet distributed at the 2009 Copenhagen Climate Conference, the network stated that '[w]e cannot trust the market with our future, nor put our faith in unsafe, unproven and unsustainable technologies'. The leaflet offered several alternatives to achieve 'system change not climate change'. At the heart of these was an aim to fundamentally transform how societies were organised and ordered. The network's proposals included:

> 'leaving fossil fuels in the ground; reasserting peoples' and community control over resources; relocalising food production; reducing overconsumption, particularly in the North; recognising the ecological and climate debt owed to the peoples of the South and making reparations; and respecting indigenous and forest peoples' rights.'[816]

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[815] 'Kari-Oca 2 Declaration: Indigenous Peoples Global Conference on Rio+20 and Mother Earth', 17 June 2012, Rio de Janeiro, available at: <http://www.ienearth.org/docs/DECLARATION-of-KARI-OCA-2-Eng.pdf> (last accessed on 1 May 2018). See also, Indigenous Peoples Global Conference on Rio+20 and Mother Earth, 'The Solutions', quoted in Peter Jacques and Sharon J Ridgeway, *Power of the Talking Stick: Indigenous Politics and the World Ecological Crisis* (Abingdon: Routledge, 2016), p. 153.

[816] Climate Justice Action, 'What does climate justice mean in Europe?', quoted in Paul Chatterton, David Featherstone, and Paul Routledge, 'Articulating Climate Justice in Copenhagen: antagonism, the commons and solidarity' (2010) *European Consortium of Political Research*, available at: <https://ecpr.eu/filestore/paperproposal/df62d983-ec12-407b-9e11-412997d57898.pdf> (last accessed on 13 May 2018). See also, Annaleen Kenis and Matthais Lievens, *The Limits of the Green Economy: From re-inventing capitalism to repoliticising the present* (Abingdon: Routledge, 2015), p. 158.

Several months later, in April 2010, many of the same participants met to agree a declaration called the People's Agreement of Cochabamba. In it, the conference's 35,000 participants agreed upon the necessity of a 'new system that restores harmony with nature and among human beings'. The People's Agreement proposed:

> 'the recovery, revalorization, and strengthening of the knowledge, wisdom, and ancestral practices of Indigenous Peoples, which are affirmed in the thought and practices of "Living Well," recognizing Mother Earth as a living being with which we have an indivisible, interdependent, complementary and spiritual relationship.'[817]

In turn, the People's Agreement sought to restore the integrity of 'our Mother Earth and all its beings' by calling upon First World countries to address their 'climate debt', and act toward actualising 'restorative justice' as a supplement to financial compensation. The agreement attempted to address this through a profound shift toward sustainable agricultural practices used by 'indigenous and rural farming peoples', as appropriate to 'local cultural contexts'.[818] Correspondingly, it rejected models of 'agribusiness', free trade agreements, technological solutions, monoculture plantations, and the application of intellectual property to living organisms. The People's Agreement also demanded a stop to actions 'based on market mechanisms'. These mechanisms proposed 'non-existent and conditional results'. They were grounded on principles that had proved incapable of regulating the global financial system, which was 'fragile and uncertain due to speculation and the emergence of intermediary brokers', the agreement stated. It was thus 'totally irresponsible' to leave, in the hands of markets, 'the care and protection of human existence and of our Mother Earth'.[819]

The Bolivian government drew heavily upon the agreement as a basis for its own climate policy.[820] It enshrined a 'Law of Mother Earth', which sought to grant nature the same rights as that of humanity. The government also advocated for radical measures to reduce pollution and control the country's rate of industrialisation. It legislated, for example, that the rights of nature 'not be affected by mega-infrastructure and development projects

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[817] *People's Agreement of Cochabamba*, 22 April 2010, available at: <https://pwccc.wordpress.com/2010/04/24/peoples-agreement> (last accessed on 11 April 2018).
[818] Ibid.
[819] Ibid.
[820] Beth Jean Evans, 'The Plurinational State of Bolivia's Consideration of Ethics and Justice Issues in Formulating Climate Change Policies', in Donald A Brown and Prue Taylor (eds), *Ethics and Climate Change: A Study of National Commitments* (Gland: IUCN, 2015), p. 20.

that affect the balance of ecosystems and the local inhabitant communities'.[821] Moreover, this notion of duty and responsibility to nature has now been codified in the Constitution of Ecuador, which states that:

> 'Nature, or Pacha Mama, where life is reproduced and occurs, has the right to integral respect for its existence and for the maintenance and regeneration of its life cycles, structure, functions and evolutionary processes'.[822]

In addition, Cuba's radical five-year transition from a net food importer to a completely self-sufficient food supply—based on organic farming practices—has become another case in point.[823] Its government's 'Revolución Energética' has also helped the country move toward a more efficient and decentralised energy system. Implementing stringent energy efficiency policies, it has caused estimated energy savings of approximately one million tonnes of oil since 2006.[824]

UNEP Executive Director Steiner made a number of notable comments in response to these movements. He claimed, in March 2012, that debates with regard to the green economy were 'generally maturing beyond ideology' into 'managing legitimate concerns', such as maximising poverty eradication efforts.[825] Clearly, his claim—to be speaking from a standpoint 'beyond ideology'—was a highly politicised one. In Steiner's depiction, the green economy functioned in a way that was non-ideological: a move that Slavoj Žižek might label as 'ideology *par excellence*',[826] or what Haraway might call 'God's trick'.[827] Fundamentally, this trick skilfully concealed and accentuated relations

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[821] John Vidal, 'Bolivia enshrines natural world's rights with equal status for Mother Earth', *The Guardian* (online), 11 April 2011 <http://www.theguardian.com/environment/2011/apr/10/bolivia-enshrines-natural-worlds-rights> (last accessed on 30 March 2018).
[822] *Constitución de la República del Ecuador 2008* [Constitution of the Republic of Ecuador of 20 October 2008], Ch. 7, quoted in Nicholas Stern, 'Ethics, equity and the economics of climate change', *Grantham Institute on Climate Change and the Environment, London School of Economics Working Paper* (August 2012), available at: <http://www.cccep.ac.uk/Publications/Working-papers/Papers/90-99/WP97-ethics-equity-economics-of-climate-change.pdf> (last accessed on 30 March 2018), p. 32.
[823] Andrew Simms, *Cancel the Apocalypse: The New Path to Prosperity* (London: Hachette Digital, 2013), pp. 206-208.
[824] Ibid 209-210.
[825] Achim Steiner, '2012 Aurelio Peccei Lecture: Learning to Live on Only One Planet—Towards the UN Summit in Rio' (Speech delivered in Rome, 30 March 2012), available at: <http://www.comitatoscientifico.org/temi%20SD/documents/STEINER%20Peccei%20Lecture%202012.pdf> (last accessed on 28 February 2018), p. 4.
[826] Slavoj Žižek, 'Introduction: The Spectre of Ideology', in Slavoj Žižek (ed), *Mapping Ideology* (London: Verso, 1994), p. 19.
[827] Donna J Haraway, 'Situated Knowledges: The Science Question in Feminism and the privilege of partial perspective' 14(3) *Feminist Studies* 575.

of domination under a seemingly objective—or neutral—façade. Far from resolving conflicts, Steiner's self-representation of the green economy—as 'technical'—merely sought to mask them in very particular ways. This was through a specific polemic, whereby the opponent became delegitimised and disqualified—as ideological, merely political, or non-scientific—in order, as Carl Schmitt might have recognised: 'to portray oneself as non-political (in the sense of purely scientific, purely moral, purely juristic, purely aesthetic, purely economic, or on the basis of similar purities) and thereby superior'.[828]

Other proponents resorted to more directly coercive techniques. For example, the United States withdrew significant aid funding from a number of South American governments conducting themselves under a coalition called the 'Bolivarian Alliance for the Peoples of our America' (or 'ALBA'). Positioning themselves as reviving the work of Simon Bolivar, ALBA countries had sought to resist imperialism and untrammelled market forces, favouring policies intended to foster greater independence and self-determination. Countries from which funding was withheld included Cuba, Ecuador, Nicaragua, Venezuela, as well as Bolivia. This tactic was deliberately aimed to 'neutralise, co-opt or marginalise' opposition to the green economy in international negotiations.[829] In 2011, Pablo Salón—Bolivia's Ambassador to the United Nations—confirmed that the United States had 'cut aid to Bolivia and Ecuador'. Salón continued, adding that 'they said it very clearly: "We're going to cut it, because you don't support [us]". And that is blackmail.'[830] Similarly, cables suggest that the United States also paid millions of dollars to countries, including the Maldives, in exchange for greater support of the United States' negotiating positions. For instance, during a private discussion with the newly-appointed Ambassador of Maldives to the United States, Abdul Ghafoor Mohamed, representatives of the United States government claimed that they:

> 'would like to see that small countries, like Maldives that are at the forefront of the climate debate, receive tangible assistance from the larger economies. Other nations

[828] Carl Schmitt, *The Concept of the Political* (Chicago: University of Chicago Press, 1996), p. 32.
[829] Cable from United States Embassy in Brussels, 'Deputy NSA Michael Froman Visit to Brussels, 27 January 2010', *WikiLeaks* (online), 17 February 2010, available at: <http://wikileaks.org/cable/2010/02/10BRUSSELS183.html> (last accessed on 30 March 2018). See also, Amy Goodman and Denis Moynihan, *The Silenced Majority: Stories of Uprisings, Occupations, Resistance, and Hope* (Chicago: Haymarket Books, 2012), p. 80.
[830] Goodman and Moynihan (2012), p. 81.

would then come to realise that there are advantages to be gained by compliance.' [831]

Facing a threat of isolation—with many of its diplomatic allies seemingly unwilling to maintain their objections—Bolivian efforts (which were supported, at least at first, by the country's Cuban, Ecuadorean, Nicaraguan, and Venezuelan allies)[832] could only stall, but not prevent, the outcome document's retention of a significant emphasis on the green economy. The document stated that the green economy:

> 'should contribute to eradicating poverty as well as sustained economic growth, enhancing social inclusion, improving human welfare and creating opportunities for employment and decent work for all, while maintaining the healthy functioning of the Earth's ecosystems.'[833]

Yet, following concerted objections, the conference participants could only agree that the green economy was 'one of the important tools available for achieving sustainable development'. The outcome document held that, whilst it 'could provide options for policymaking', the concept 'should not be a rigid set of rules'.[834] Nonetheless, perhaps anticipating this outcome, many states had already aligned with private actors—outside the Rio+20 process—to commit themselves, legally and politically, to valuing natural capital and ecosystem services. For example, the Green Growth Knowledge Platform was a legal-institutional framework—jointly created by the Bank, UNEP, and the OECD in early 2012—aimed at greening national economies. I discuss some of these initiatives in more detail in the following subsection.

With these developments, the Rio+20 Conference became—in United Nations Secretary-General Ban Ki Moon's words—a 'free market revolution for global sustainability'.[835]

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[831] Quoted in a cable from United States Secretary of State, 'Maldives Ambassador's Washington Consultations', *WikiLeaks* (online), 26 February 2010, available at: <http://wikileaks.org/cable/2010/02/10BRUSSELS183.html> (last accessed on 30 March 2018). See also, Goodman and Moynihan (2012), p. 80. The cable also reveals that Ambassador Mohamed requested US$50 million for aid projects focused on protecting the Maldives from rising sea levels.
[832] Felix Dodds, Jorge Laguna-Celis, and Liz Thompson, *From Rio+20 to a New Development Agenda: Building a bridge to a sustainable future* (London: Routledge, 2014), pp. 29-31.
[833] *The future we want*, GA Res 66/288, UN GAOR, 66th sess, 123rd plen mtg, UN Doc A/66/L.56 (11 September 2012), para. 56.
[834] Ibid, paras. 56-74.
[835] United Nations Secretary-General, 'Twentieth-Century Model 'A Global Suicide Pact", Secretary-General Tells World Economic Forum Session on Redefining Sustainable Development', *United Nations Department of Public Information* (online) <http://www.gci.org.uk/Documents/Ban_Ki_Moon_in_DAVOS.pdf> (last accessed on 11 January 2018).

In a report on the conference's outcomes, he opined that the Declaration emphasised 'strong economic performance'. Any transition to a green economy, he added, required 'public policies to avoid negative effects on economic growth'.[836] With regard to this aim, the Rio+20 Declaration replicated text in the UNFCCC—and GATT—to explicitly reject any 'green economy policies' that threatened to 'constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade'.[837] The Declaration also affirmed that any action performed by a country to improve its social welfare—including endorsing financially-lucrative, but resource-intensive, urban infrastructure projects—were countable toward its sustainable development indicators.[838]

The Declaration did afford some recognition—at least in superficial terms—of indigenous peoples' knowledge and interests.[839] Yet, it gave no indication of how any conflicts between these and other logics were to be resolved. Rather, the declaration preserved the economic aspirations of global minority of techno-scientific industrialist elites. It thereby safeguarded perceptions that consumerism was a 'materially embedded ideological reality'.[840] Serious attempts to revive other forms of knowledge through renegotiation—or otherwise diverge from a dominant global order—were met with acrimony. Their proponents were accused of deliberately impeding official processes by re-aspirating settled debates (or, in vernacular of international negotiations, 'backsliding').

2.2. Conjuring Natural Capital

The Rio+20 Conference's focus on the green economy became a springboard. It launched additional policy frameworks, and private initiatives, to value both natural capital and ecosystem services. These legal-institutional mechanisms led the vanguard of movements toward greater decentralisation and flexibility in environmental governance, a feature that many civil society and environmental groups had fought for. Drawing attention to a need for taking local and 'national circumstances' into account in designing global environmental regimes, these advocates unwittingly fed the development of a

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[836] United Nations Secretary-General, 'Objectives and Themes of the United Nations Conference on Sustainable Development', in *Report of the Secretary-General*, UN Doc A/CONF.216/PC/7 (22 December 2010), paras. 4, 36.
[837] *UNFCCC*, Art. 3.5. This text originated from the GATT. See *Marrakesh Agreement*, Art. XX.
[838] *The future we want* (2012), para 56.
[839] Ibid, para. 197.
[840] Rob White, 'Environmental harm and the political economy of consumption' (2002) 29 *Social Justice* 82, 89.

neoliberal framework oriented to valuing natural capital and ecosystem services. At the forefront of these attempts—to associate natural capital accounting with green economies—were a number of prominent public and private institutions. UNEP underscored, for instance, that 'a green economy recognises the value of, and invests in, natural capital'.[841]

Furthermore, the Communiqué on Natural Capital Accounting, launched at the Rio+20 Conference—supported by over 50 countries and 86 private companies—invited private companies, national governments and international institutions to 'work together to create the conditions necessary to maintain and enhance natural capital as a critical economic, ecological and social asset'.[842] The Communiqué also invited private actors to strengthen the valuation and commodification of natural capital, by creating economic metrics and technically-sophisticated calculative mechanisms.[843] This idea, of valuing natural capital, was inspired by the work of economists—such as David Pearce in 1988—suggesting that sustainable development could be achieved by conceptualising environments as natural assets serving economic functions. Embodying this logic, the Communiqué promulgated a widely-held view that the green economy could be:

> 'categorised by economic change subject to "constancy of natural capital stock"—the stock of environmental assets are held constant while the economy is allowed whatever social goals are deemed appropriate'.[844]

UNEP partnered with a number of private financial institutions—calling themselves the Natural Capital Finance Alliance—to support voluntary efforts to value natural capital. In a joint declaration, agreed over a number of years, they defined natural capital as comprising 'the Earth's natural assets (soil, air, water, flora, and fauna) and the ecosystem services emanating from them, which make human life possible'. The declaration also emphasised the central role of natural assets and services in underpinning 'productivity and the global economy'.[845] Their definition shared the United Kingdom Natural Capital Committee's definition of natural capital, as 'the elements of nature that produce value

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[841] UNEP (2011)
[842] *Natural Capital Communique* (2012), available at: <http://www.wavespartnership.org/sites/waves/files/images/Final%20NCA%20Communique.pdf> (last accessed on 18 May 2015).
[843] Ibid.
[844] David W Pearce, 'Economics, equity and sustainable development' (1988) 20 *Futures* 598, 598.
[845] Natural Capital Finance Alliance, 'Natural Capital Declaration', available at: <http://www.naturalcapitaldeclaration.org/declaration-full-text> (last accessed on 31 March 2018).

or benefits to people (directly and indirectly)'. Such elements were asserted to include, for example, 'the stock of forests, rivers, land, minerals and oceans, as well as the natural processes and functions that underpin[ned] their operation'.[846] In UNEP's view, these stocks 'yield[ed] flows of valuable ecosystem goods or services'.[847]

Admittedly, some prominent models for valuing natural capital in economic terms appeared to acknowledge at least some of the critiques levelled against them. One such initiative, The Economics of Ecosystems and Biodiversity ('TEEB'), declared that it 'does not propose a one-size-fits-all, cost-benefit-based stewardship model'. The initiative, launched by UNEP, emphasised that approaches to 'recognizing value' did not necessarily need to rely on 'recourse to monetization or even economics'. Yet, it advocated for the demonstration of values through 'economic tools and methods to make nature's services economically visible'.[848] These included, most prominently, 'payments for ecosystem services' ('PES').[849] This TEEB approach was, therefore, predominantly about incorporating this logic into decision making through 'price signals'. This capturing of value in economic terms was seen as 'critical' to effective land management practices, through its role in enabling policymakers to 'address trade-offs in a rational manner'. Through this, TEEB claimed to correct 'the bias' of present approaches—which 'favour[ed] private wealth and physical capital'[850]—while obscuring an identical set of biases in its own approach. Ultimately, the initiative diminished the notion of the environment. It sought to extend the market's operation, thereby sustaining—rather than fundamentally destabilising—the root causes of problems that it professed to resolve.

Similarly, in 2012, the Bank promoted a Wealth Accounting and Valuation of Ecosystem Services ('WAVES') initiative as a central component of its 'Environment Strategy'.[851] The initiative offered guidance, and a methodology, to determine what it called the 'true value of natural resources and its ecosystems'. The Bank regarded these as 'assets that

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[846] Natural Capital Committee, *The State of Natural Capital: Towards a framework for measurement and valuation* (London: UK Government, 2013), p. 10.
[847] Pavan Sukhdev, Heidi Wittmer, and Dustin Miller, 'The Economics of Ecosystems and Biodiversity (TEEB): Challenges and Responses', in Dieter Helm and Cameron Hepburn, *Nature in the Balance: The Economics of Biodiversity* (Oxford: Oxford University Press, 2014), p. 4.
[848] Ibid 6.
[849] Ibid 7.
[850] Ibid 6.
[851] World Bank Group, *Toward a Green, Clean, and Resilient World for All: A World Bank Group Environment Strategy 2012-2022* (Washington DC: World Bank Group, 2012), pp. 48, 51.

support[ed] human well-being'.[852] It acknowledged that its conception of environmental value reflected subjective human preferences: namely, 'people's willingness to pay for environmental goods and services or willingness to accept compensation for the loss of an environmental asset'.[853] This understanding of nature, the Bank proposed, could serve as a basis for incorporating natural capital and ecosystem services into countries' national 'wealth accounts'. To this end, WAVES endorsed attempts of the United Nations Statistical Commission's System of Environmental-Economic Accounting ('SEEA') to recognise a global accounting standard for measuring natural capital and ecosystem services.[854]

Since then, proponents of natural capital have consistently affirmed its emergent potential to be a 'new asset class for the future'.[855] Even previously-resistant environmental NGOs have now jumped onto this lucrative bandwagon. For example, the President of Conservation International recently called for natural capital to be 'the most central element in long-term sustainable development'.[856] Moreover, the IUCN's quadrennial World Conservation Congress—last held in 2016—endorsed a controversial proposal to integrate the 'language and concepts of natural capital' valuation into the organisation's policies. The Congress noted that these were becoming 'widespread within conservation circles and IUCN'.[857] Prior to this vote, an IUCN working group had organised a

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[852] Wealth Accounting and the Valuation of Ecosystem Services ('WAVES'), *Moving Beyond GDP: How to factor natural capital into economic decision making* (Washington DC: World Bank Group, 2012), available at: https://www.wavespartnership.org/sites/waves/files/images/Moving_Beyond_GDP.pdf (last accessed on 22 February 2018). See also, European Commission, Food and Agriculture Organization, International Monetary Fund, Organisation for Economic Co-operation and Development, United Nations, World Bank, *System of Environmental-Economic Accounting: Central Framework* (New York: United Nations, 2012).

[853] World Bank (2012), p. 52. An identical view was shared by the OECD, which stated that 'value is reflected in people's 'willingness-to-pay' – the amount of money an individual is willing to pay for a good or service – or 'willingness-to-accept' – the amount of money an individual is willing to accept as a compensation for a good or service'. See OECD, *Towards Green Growth* (Paris: OECD, 2011), p. 27.

[854] WAVES (2012), p. 10. The United Nations Statistical Commission adopted the SEEA in 2012, at its 43rd Session. See United Nations, European Union, FAO, IMF, OECD and the World Bank (2014), 'System of Environmental-Economic Accounting 2012 — Central Framework', United Nations Document symbol: ST/ESA/ STAT/Ser.F/109 Sales No E.12.XVII.12, available at: <http://unstats.un.org/unsd/envaccounting/seeaRev/SEEA_CF_Fi- nal_en.pdf> (last accessed on 25 February 2018).

[855] Spoken by Peter Carter (Chief Environmentalist at the European Investment Bank), summarising views at a concluding session of the conference 'To No Net Loss of Biodiversity and Beyond' (London, June 2014). See Sian Sullivan, 'Making Nature Investable: from Legibility to Leverageability in Fabricating "Nature" as "Natural Capital"' *Science & Technology Studies* (forthcoming 2018).

[856] Russ Mittermeier, 'Natural Capital Accounting Taking Hold as Countries Go Beyond GDP', *The World Bank* (online), available at: <http://www.worldbank.org/en/news/feature/2014/05/21/natural-capital-accounting-taking-hold-as-69-countries-go-beyond-gdp (last accessed on 25 February 2018).

[857] 'Motion 63 – Natural Capital', *IUCN World Conservation Congress* (online), 7 November 2016 available at: <https://portals.iucn.org/congress/motion/063> (last accessed on 25 February 2018).

workshop—entitled ‘Matters of Value: Natural capital, cultural diversity, governance and rights’—to discuss the issue. During the fractious debates that followed, many voiced support for promoting the role of natural capital in supporting ‘continued economic wellbeing’.[858] The CEO of Credit Suisse said, for example, that the idea could construct attitudes that ‘saving these ecosystems is not only affordable but profitable’.[859] Another participant saw it as a potentially promising way to achieve what he called ‘greenery by stealth’.[860]

Opposing these perspectives, however, a Peruvian participant warned of possible effects produced by natural capital’s reliance on the construction of an external nature. Highlighting the difficulties that many Andean indigenous peoples felt in understanding the idea, he explained how humanity and nature were deeply intertwined in many alternative worldviews.[861] Nonetheless, these views were rapidly dismissed by a senior IUCN representative in his summary of the proceedings. He chose instead to frame natural capital in fatalistic terms: saying that the conservation movement could ‘either embrace it, or continue internal debates that create confusion’.[862] Again, it seemed, these views were sacrificed to more dominant views upon a perceived need to achieve political consensus. Ultimately, the Congress adopted a motion to establish a working group to draft an ‘IUCN policy on natural capital’. This policy would include frameworks, principles, and methods for applying natural capital ‘approaches and mechanisms’. These, the Congress held, could eventually become foundations for implementing so-called ‘no net loss’ biodiversity objectives, calculated with reference to natural capital.[863]

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[858] Michael Wright (representative of the National Parks and Wildlife Service, New South Wales State Government), quoted in ‘Natural Capital Approaches: Identifying Common Ground and Fracture Points’, *IISD Reporting Services* (online), 5 September 2016, available at: <http://enb.iisd.org/iucn/congress/2016/html/enbplus39num20e.html> (last accessed on 28 February 2018).

[859] Global AgInvesting, 'New Coalition to Develop Profitable Conservation Investment Models', 5 September 2016, available at: <http://www.globalaginvesting.com/conservation-investment-undergoing-paradigm-shift-toward-profit> (last accessed on 18 March 2018).

[860] Lynda Mansson (Director-General of the MAVA Foundation), quoted in ‘Nature-Based Solutions for Sustainable Development’, *IISD Reporting Services* (online), 3 September 2016, available at: <http://enb.iisd.org/iucn/congress/2016/4sep.html> (last accessed on 28 February 2018).

[861] Dani Rivera (representing the Center for Amazonian Indigenous Development), quoted in ‘Natural Capital Approaches: Identifying Common Ground and Fracture Points’, *IISD Reporting Services* (online), 5 September 2016, available at: <http://enb.iisd.org/iucn/congress/2016/html/enbplus39num20e.html> (last accessed on 28 February 2018).

[862] Gerard Bos (Director of IUCN’s Global Business and Biodiversity Programme), quoted in ‘Natural Capital Approaches: Identifying Common Ground and Fracture Points’, *IISD Reporting Services* (online), 5 September 2016, available at: <http://enb.iisd.org/iucn/congress/2016/html/enbplus39num20e.html> (last accessed on 28 February 2018).

[863] IUCN, Motion 63 – ‘Natural Capital’ (2016).

While nascent, these legal-institutional approaches clearly sought to ratify particular ideas about how humanity, the environment, and the relationship between them were constituted. Nature became expressed as equivalent to, and exchangeable for, a common, quantitative unit: money. Intrinsically, natural capital accounting was instituted in attempts to make nature visible 'on the balance sheets of financial institutions',[864] principally by subjecting it to a range of mathematical and calculative techniques. Through these, however, the environment became refashioned—by the new instruments and techniques that sought to measure it—in a way that more deeply reified the primacy of economic indicators. Yet, in all these natural capital valuations, qualitative evaluations were invariably substituted with inherently subjective—but seemingly objective—numerical variables. These transformations enabled nature to be more effectively deployed to serve the expansion of globalised markets.

For example, the use of 'discount rates'—to estimate present costs of future environmental harms—were underpinned by heavily socio-politicised economic assumptions.[865] Put alternatively, natural capital accounting conferred these techniques with power to condense the environment into atomised, but homogenous, numerical units. Then, these units could easily be translatable into markets bestowing monetary—or economic—value.[866] Through these modalities of governance, supposedly separate elements of the environment were made to appear numerically-quantifiable, fungible, and commensurable. They could then be used in financial accounting models and cost-benefit analyses, which prioritised optimal economic management over all other considerations. Reifying this dominant logic, the environment became reconceived as natural capital. This vision diminished the infinitely-diverse biophysical arrangements that make up what we call the environment.

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[864] UNEP Finance Initiative (UNEP-FI) and Global Canopy Programme (GCP), *The Natural Capital Declaration (NCD) Roadmap: Implementing the Four Commitments of the Natural Capital Declaration* (Nairobi: UNEP FI and GCP, 2013), available at: <http://www.naturalcapitaldeclaration.org/asset/download/154/ncd_roadmap.pdf> (accessed on 21 February 2018), pp. 4, 20.

[865] See generally, William Nordhaus, 'A Review of the Stern Review on the Economics of Climate Change' (2007) 45 *Journal of Economic Literature* 686; Nicholas Stern, 'The Economics of Climate Change' 98(2) *American Economic Review* 1. See also, David Roberts, 'Discount Rates: A Boring Thing You Should Know About', *grist* (online), 24 September 2012, available at: <http://grist.org/article/discount-rates-a-boring-thing-you-should-know-about-with-otters> (last accessed on 23 February 2018).

[866] See generally, Larry Lohmann, 'Toward a Different Debate in Environmental Accounting: The Cases of Carbon and Cost-Benefit', 34(3-4) *Accounting, Organizations and Society* 499; Rupert Read and Molly Scott Cato, '"A price for everything?": The "natural capital controversy"' (2014) 5(2) *Journal of Human Rights and the Environment* 153.

Notwithstanding these failings, and regardless of how carefully these mechanisms are designed—how cautiously their boundaries are drawn, or how many safeguards are in place—their reliance on market logic means that they can only ever be capable of partially reflecting nature's values.[867] Their confined, quantitative, and homogenous vision of nature can never completely capture the reality of infinitely complex, qualitative, and heterogenous natures. They are only able, at best, to value certain ways of seeing nature (or ideas of justice)—as understood through a discrete set of methodologies—while ignoring others. Internalising all relevant ecological costs would likely mean that any irreplaceable, vital ecosystems would have infinite aggregate costs, because their true values in perpetuity—in ecological and evolutionary terms—would be indeterminable.[868] The mechanisms also reveal an unresolvable asymmetry. Their ability to generate ever-increasing flows of money, is incompatible with a reversal of that transformation: that is to say, money cannot be reconverted into natural capital. Put alternatively, the environment 'has itself no use for money'.[869]

In all, these techniques of natural capital valuation replenish the accumulative tendencies of a neoliberal governmentality. These initiatives disproportionately benefit a wealthy minority of peoples and societies—those disproportionately contributing to environmental harms—to become beneficiaries of new revenue streams. They enable those proprietors to manage corresponding natural spaces for financial reward: what the IUCN called the 'biggest business in the world'.[870] Their efforts, to increase the economic value of conservation, are also consistent with what Foucault called the 'calculated management of life'.[871] They amplify the role of market logic as the supreme

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[867] See, for example, Lohmann (2009). Evidence suggests that markets for natural capital and ecosystem services tend to be highly imperfect. Some even argue that such well-developed schemes—like, for instance, Costa Rica's national payment for environmental services—might more accurately be described as 'subsidies in disguise'. Robert Fletcher and Jan Breitling, 'Market mechanism or subsidy in disguise? Governing payment for environmental services in Costa Rica' (2012) 43(3) *Geoforum* 402.
[868] Olav Hohmeyer, Richard L Ottinger, and Klaus Rennings (eds), *Social Costs and Sustainability* (Berlin: Springer-Verlag, 1996).
[869] Alf Hornborg, *Global Magic: Technologies of Appropriation from Ancient Rome to Wall Street* (London: Palgrave MacMillan, 2016), pp. 70-71.
[870] Costanza estimated its annual monetary value at approximately US$33 billion in 1997, or approximately double the value of global GDP at the time. See Natural Capital Coalition, 'The Low Carbon Economy This Century's Biggest Business Opportunity', 10 April 2018, available at: <https://naturalcapitalcoalition.org/is-the-low-carbon-economy-this-centurys-biggest-business-opportunity> (last accessed on 25 May 2018). See also, Julian Huxley, *The Humanist Frame* (London: Allen & Unwin, 1961), p. 14 (Huxley contended that humanity had become the 'managing director of the biggest business of all, the business of evolution').
[871] Michel Foucault, *The Birth of Biopolitics: Lectures at the College de France 1978-1979* (Michel Senellart ed and Graham Burchell trans, New York: Palgrave MacMillan, 2008), p. 140.

arbiter of environmental values. Some suggest that such extensions of market-based governance regimes into previously externalised socio-ecological dominions might also be thought of as a 'territorialising activity'.[872] Stated in another way, this represents an attempt to sustain what Moore calls an 'ecological surplus' by defining previously unvalued environments in such ways that feed the voraciously expansive appetite of globalised markets.[873]

Similarly, the concept of natural capital has displayed a capacity to mould ingeniously to 'traditional'—or local—knowledges. Multinational corporations—seeking to capitalise on the enormous economic potential in 'cultural diversity and human creativity'[874]—have typically welcomed a desire to 'mobilise' and 'translate' indigenous knowledge into economically-productive sustainability practices. Indigenous peoples' traditional stewardship practices over forests, for example, are seen by some only as efficient means of conserving natural capital and ecosystem services. Yet, their cultural practices are still regarded as epistemically inferior: valued only insofar as they had potential to generate sustainable knowledge and practices about the environments under their stewardship.[875] With this, the radical potential of these alternative worlds and local ecologies were captured, or enfolded, into a global task: that of extending global markets. Diversity, in other words, became useful for creating new commodities, property, and financial instruments. So, rather than directly excluding—or disciplining—non-occidental knowledges—as we saw in the development paradigm—natural capital operated through a series of inclusions. This resembles Escobar's formulation of a 'new capitalization of nature', which relied on what he called three 'semiotic conquests':

> 'This new capitalization of nature not only rests on the semiotic conquest of territories (in terms of biodiversity reserves) and communities (as the 'guardians' of nature); it also requires the semiotic conquest of local knowledges, in the sense that 'saving nature'

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[872] Andrea Mennicken and Peter Miller, 'Accounting, Territorialization and Power' (2012) 13 *Foucault Studies* 4.
[873] For a discussion of these ideas about 'ecological surplus' and 'commodity frontiers', see Moore (2015), pp. 53, 95. Moore might explain the widespread embrace of market mechanisms I have described here as fulfilling a need to rectify what he calls a problem of 'declining surpluses'. He identifies this as an inherent feature of capitalism itself.
[874] *Convention for the Safeguarding of the Intangible Cultural Heritage*, opened for signature 17 October 2003 (entered into force 20 April 2006), Preamble.
[875] Michael Hardt and Antonio Negri, *Multitude: War and Democracy in the Age of Empire* (New York: Penguin, 2004), pp. 216-217.

> requires the valuation of local wisdom about the sustainability of nature. Modern biology begins to discover that local systems of knowledge are useful complements.'[876]

Yet, this transformation—of previously uncapitalised external natures into the environment of globalised markets—also reveals international law's reflexive quality. Natural capital techniques of legal-institutional governance demonstrate how critiques made against a global order became transformed into a set of positive legal-institutional innovations directed at unleashing new sources of finance and technology. Specifically, these transformed perceptions about limits to growth into what might be thought of as possibilities for the dynamic growth of limits. Buttressed by law, the market took on new forms, reconfiguring itself in response to possible threats, without radically interfering with the global order's dominant structural configurations. The resulting instruments produced visions of a 'greened' economy. Their ultimate reality, however, was precisely the opposite: a world facing total economisation, or polymerisation. In essence, the green economy and natural capital initiatives emerged as ways to neutralise those critiques, while growing economies and sustaining the neoliberal global order. This masked the market economy's complicity in creating the very problems it now sought to resolve.

III. Unrest in Vain Citadels

A number of recent, high-profile multilateral agreements lend heightened support to the programmes described in the previous section. The Sustainable Development Goals ('SDGs') and the Paris Climate Agreement—both agreed in 2015—represent new forms of delimitation. They are important episodes in my story insofar as these instruments are typically perceived—in both mainstream scholarship and in media—as authorising a new era of environmental protection. With this, they are regarded as the epitome of international law's efforts to address environmental issues. By contrast, in my view, these agreements might alternatively be seen as a continuation of efforts to sustain a global ordering grounded on the expansion of markets. They aimed to tinker with the existing global order, retaining its dominant logics, rather than seeking to fundamentally reconfigure them. In other words, their objectives were to narrow the terrains of struggle in ways that accentuated the durability of neoliberal environmentalism.

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[876] Arturo Escobar, *Encountering Development: The Making and Unmaking of the Third World* (2nd ed, Princeton: Princeton University Press, 2004), pp. 383-384. See also, Vandana Shiva, 'The Greening of the Global Reach', in Wolfgang Sachs (ed), *Global Ecology: A New Arena of Global Conflict* (Halifax: Fernwood Books, 1993), p. 153.

As we will observe, most of the putatively 'environmental' provisions in each of these agreements were phrased in vague and highly qualified terms. Meanwhile, the instruments' most concrete prescriptions operated as enablers of a competitive market established through a complex set of legal-institutional governance and regulatory mechanisms. It is important to note here that their lack of concreteness might not in themselves be flaws. When combined, however, with concrete provisions designed with market expansion in mind, it becomes clear that those flexible instruments were designed and oriented toward serving this purpose. Operating together, these actually enable new markets—and the subjectivities they require—to function properly. Meanwhile, their key legal and governance initiatives are squarely aimed at sustaining GDP growth. As such, the following subsections seek to confront the effectiveness of these agreements—and what social effects they are actually producing—instead of simply celebrating the fact that a form of international consensus has been reached in each case.

3.1. Sustaining the Development Goals

A major innovation agreed upon by parties to the Rio+20 Conference was to commence negotiations on the SDGs. Its impetus was to search for more extensive indicators of human and environmental wellbeing than those modelled in the Millennium Development Goals ('MDGs'). Indeed, the MDGs considered environmental issues almost as 'afterthoughts'.[877] Originally, the Bank and OECD led efforts to build this novel set of development indicators. Their research was supported by a number of prominent leaders—such as South African President Thabo Mbeki and Swiss President Moritz Leuenberger—who voiced, as early as 2006, repeated calls to pay greater attention to the work of these international organisations in formulating new indicators. Eventually, the Colombian and Guatemalan governments formulated a joint proposal in November 2011 to create a total of eight SDGs. Underpinned by a set of targets and metrics, these were to be 'general in character and establish a universal objective for safeguarding the environment'. Building upon this, the Colombian-Guatemalan proposal highlighted the

[877] UNDP Administrator Mark Malloch-Brown confirmed this in an interview, in which he stated that '[t]he document had gone to the printing presses as I passed the head of the UN's environmental programme […] and a terrible swearword crossed my mind when I realised we'd forgotten an environmental goal […] we raced back to put in the sustainable development goal'. See Mark Tran, 'Mark Malloch-Brown: Developing the MDGs was a bit like Nuclear Fusion', *The Guardian* (online), available at: <https://www.theguardian.com/global-development/2012/nov/16/mark-malloch-brown-mdgs-nuclear> (last accessed on 15 December 2016).

possible SDGs as pertaining to: poverty reduction, consumption patterns, sustainable settlement development, biodiversity and forests, oceans, water, food security, and energy.[878]

While widely welcomed, the general proposal controversially extended this list—following a suggestion by an association of civil society organisations—to 17 SDGs and 169 targets.[879] The resulting agreement—labelled as the 2030 Agenda for Sustainable Development—was intended by its parties to be a single, global, and supposedly universal 'blueprint' for addressing the world's major challenges. It sought to connect efforts to tackle poverty eradication and environmental protection with 'sustained and inclusive' economic growth.[880] As such, many regarded the resulting Agenda as a 'truly transformational' agreement, one that was '[b]reathtaking in its scope and ambition'.[881] Underpinned by the widest-ever public consultation process held by the United Nations, it was adopted by consensus and without any reservations by its parties.

Ostensibly, the SDGs offered a vision of a world liberated from extreme poverty and hunger. They strived to reduce child mortality, improve maternal health, and increase access to safe and affordable medicines. Their ambitions—with regard to enhancing literacy, gender equality, water quality, sanitation, and universal access to affordable clean energy—were also highly lauded. The SDGs also specified more concrete commitments, such as increasing standards of living for all peoples above the current extreme poverty threshold of $1.25 per day.[882] Through it, governments also committed themselves to reducing rates of maternal mortality to under 70 deaths for every 100,000 live births.[883] Added to these were a number of notable preambular phrases affirming that 'planet Earth and its ecosystems are our home', and underscoring the need to achieve 'harmony with nature'.[884]

Yet, importantly, other SDGs—on reducing production and consumption, tackling

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[878] Franz X Perrez and Daniel Ziegerer, 'A Non-Institutional Proposal to Strengthen International Environmental Governance' (2008) 38(5) *Environmental Policy and Law* 253.
[879] Felix Dodds, David Donoghue and Jimena Leiva Roesch, *Negotiating the sustainable development goals: a transformational agenda for an insecure world* (London: Routledge, 2017), p. 14.
[880] *Transforming our world: the 2030 Agenda for Sustainable Development* ('2030 Agenda'), GA Res 70/1, UN GAOR, 70th sess, 4tg plen mtg, UN Doc A/Res/70/1 (21 October 2015), para. 9.
[881] Dodds, Donoghue, and Roesch (2017), p. 117.
[882] *2030 Agenda*, Goal 1.1.
[883] Ibid, Goal 3.1.
[884] Ibid, Preamble.

climate change, halting biodiversity loss, deforestation, desertification, and overfishing, as well as restoring terrestrial and marine ecosystems—were couched in deliberately ambiguous terms. The SDGs proposed only generalised and highly qualified solutions to these problems. For instance, Goal 13.1 called upon countries only to make efforts to 'integrate climate change measures into national policies, strategies and planning'.[885] The goal contained no guidance on how this goal might be achieved, particularly in light of potentially competing priorities (such as poverty eradication). Moreover, the targets—on reducing food waste, making resource use more efficient, and encouraging companies to adopt sustainable practices—explicitly avoided any references to the need for reducing the consumption of the world's privileged few.

Contrasting these vague prescriptions, however, was Goal 8's commitment to '[s]ustain per capita economic growth'. The goal included a specific target for least developed countries to achieve 'at least 7 per cent gross domestic product growth per annum'.[886] In addition, all countries pledged to achieve 'higher levels of economic productivity', which was to be achieved 'through diversification, technological upgrading and innovation'.[887] The goal was added by the SDG Open Working Group chairs—Csaba Körösi of Hungary and Macharia Kamau of Kenya—to the SDG zero draft document. It reflected the preferences of some governments—the most vocal of which were those of Bhutan, Thailand, and Vietnam[888]—for prescriptive growth-based targets. Indeed, by including the goal in the SDGs, the chairs explicitly rejected the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda's May 2013 report, which recommended that a GDP target—or any commitment to higher productivity—not be reflected in the SDGs.[889] Some delegations expressed antipathy toward this goal. Yet, Goal 8's inclusion by the chairs in an outcome document—presented on a 'take-it-or-leave-it' basis in the final plenary of the conference[890]—left little choice but for all parties to agree to it.[891]

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[885] Ibid, Goal 13.1.
[886] Ibid, Goal 8.1.
[887] Ibid, Goal 8.2.
[888] Macharia Kamau, Pamela S Chasek and David O'Connor, *Transforming Multilateral Diplomacy: The Inside Story of the Sustainable Development Goals* (London: Routledge, 2018), p. 178.
[889] High-Level Panel of Eminent Persons on the Post-2015 Development Agenda, *A New Global Partnership: Eradicate Poverty and Transform Economies Through Sustainable Development*, available at: <https://www.un.org/sg/sites/www.un.org.sg/files/files/HLP_P2015_Report.pdf> (12 June 2018), pp. 47-50. See also, Dodds, Donoghue, and Roesch (2017), p. 121.
[890] Kamau, Chasek, and O'Connor (2018), pp. 156-157.
[891] This is an increasingly common strategy in the final stages of international environmental negotiations. Its intention is to block discussion—or dissent—and allow parties only the choice of

In all, Goal 8 exposed a devotion to growth—based on export-oriented trade of industrial products[892]—which overshadowed all other competing demands. The diffuse wording of these goals, written against the prescriptive language of Goal 8, held the entire 2030 Agenda hostage to an existing growth model, as well as its pathology of extraction, refinement, and consumption of natural resources. To further illustrate, the SDGs' predominant approach to ending global poverty relied on expanding 'economic resources', as well as access to 'new technology and financial services, including microfinance'.[893] In other words, the entire 2030 Agenda not only privileged growth-based objectives, but also anchored GDP growth as a fundamental ambition of the global order. It was the core objective, and central ordering principle, around which a set of circumscribed SDGs became anchored. As such, the SDGs invariably assumed a certain calibration of social life. This tended to elevate some logics—particularly that of growth—while neutralising contradictions and anomalies between inherently competing logics.

Conceptualised in such a way, achieving the SDGs relied upon the idea of 'decoupling' growth from environmental impacts. It was an idea endorsed by most orthodox economists and policymakers,[894] who tended to draw inspiration from more discrete schemes—such as carbon markets and natural capital initiatives—to emphasise this possibility. Following these ideas, President Barack Obama proclaimed, in a January 2017 article, that a 9.5 per cent fall in greenhouse gas emissions during his presidency—combined with a 10 per cent growth in the United States economy over the same period—'put to rest the argument that combating climate change required accepting lower growth or a lower standard of living'.[895]

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agreeing to a draft text, or reopening all of its provisions for negotiation. Given the lack of time necessary in the final stages of a conference to renegotiate its provisions, this effectively becomes a choice of accepting the text—with all its flaws—or a collapse in negotiations, at which point all parties would leave empty handed.

[892] *2030 Agenda*, Goal 8.2.

[893] For example, Goal 17.10 also calls for greater trade liberalisation through multilateral organisations. Ibid, Goal 17.1.

[894] The IEA recently pointed out a similar trend, based on two years of data. IEA, 'Decoupling of global emissions and economic growth confirmed', 16 March 2016, available at: <https://www.iea.org/newsroom/news/2016/march/decoupling-of-global-emissions-and-economic-growth-confirmed.html> (last accessed on 4 April 2018).

[895] Barack Obama, 'The irreversible momentum of clean energy', *Science* (online), 9 January 2017, available at: <http://science.sciencemag.org/content/early/2017/01/06/science.aam6284> (last accessed on 4 April 2018).

However, this reasoning relied on three vital misconceptions. Firstly, the substitution of carbon-intensive energy sources with renewable technologies only resulted in 'partial' decoupling, at best. Continued GDP growth along this pathway would require the ever-increasing construction of renewable energy technologies: such as solar panels, wind farms, geothermal plants, and lithium batteries. Their proliferation and diffusion, at the necessary scale, are ultimately reliant upon steady supplies of finite and increasingly scarce raw materials and land. Secondly, growth in the financial sector might enable an appearance of expanding economies without any correspondingly higher use of resources. The resulting wealth, however, tends to accrue to a small minority of affluent peoples, rather than genuinely directed toward the wellbeing of the poor.

For example, the world's poorest 60 per cent of people received only 5 per cent of the total income generated between 1999 and 2008. On these trends, it will likely take at least 207 years, and a global GDP of 175 times its existing size, for all peoples to earn more than US$1.25 per day.[896] In addition to this, resource-intensive production has increasingly shifted away from its places of consumption. Wealthy nations, for instance, appear to consume increasing amounts of goods produced in poorer nations. When these imported goods are included in GDP-environmental impact analyses, some argue, the results shed doubt on whether any genuine decoupling effects have actually taken place.[897]

3.2. 'We'll Always Have Paris'

In a similar vein, the Paris Agreement was a multilateral instrument agreed for the stated purpose of catalysing stronger global action on environmental problems: in this case, on tackling climate change. It envisaged the creation (or reform) of several institutions directed at, amongst other objectives, stimulating financial flows consistent with low-emission development pathways.[898] Negotiated over a four-year period, the Agreement was immediately hailed by many negotiators as a resounding success. French Foreign

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[896] Jason Hickel, 'It will take 100 years for the world's poorest people to earn $1.25 a day', *The Guardian* (online), 30 March 2015, available at <https://www.theguardian.com/global-development-professionals-network/2015/mar/30/it-will-take-100-years-for-the-worlds-poorest-people-to-earn-125-a-day> (23 May 2016).

[897] See, for example, Thomas O Wiedmann, Heinz Schandl, Manfred Lenzen, Daniel Moran, Sangwon Suh, James West and Keiichiro Kanemoto, 'The material footprint of nations' (2015) 112(20) *Proceedings of the National Academy of Sciences* 6271.

[898] *Paris Climate Agreement*, opened for signature 22 April 2016 (entered into force 4 November 2016), Art. 2(1).

Minister Laurent Fabius, who presided over the negotiations, welcomed the Agreement as a 'historic turning point'.[899] The United Nations Secretary-General called it 'a monumental triumph for people and our planet'.[900] Others saw it as a much-needed victory for multilateralism, calling it 'the world's greatest diplomatic success'.[901] Riding upon this wave of positive sentiment, the Agreement entered into force earlier than its initial 2020 commencement date—in November 2016—after obtaining ratifications from more than fifty-five parties (representing over 55 per cent of global emissions).[902]

Despite this eulogisation, a careful reading of the Agreement's history and provisions reveal that it was carefully engineered to align with a pre-existing global order. The Agreement was a concise instrument. Many of its operational details were left to be elaborated through subsequent decisions by its parties. Yet, the Agreement gave significant discretion for each country's actions to be guided by their 'different national circumstances'.[903] Some commentators argued that this represented a shift from the 'binary' approach of the Kyoto Protocol—that distinguished countries' obligations on the basis of their status as either developed or developing countries—toward more flexible forms of differentiation.[904] This movement toward greater flexibility, in lieu of prescriptive 'top-down' approaches, was a feature inherited from the 2009 Copenhagen Conference. Its infamous collapse had the effect of paving a 'historic first step forward'[905] toward the Paris Agreement.

Proposals for all major economies to take on binding emissions targets—made by the United States and European countries in the lead-up to the Copenhagen Conference (with

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[899] Joby Warrick and Chris Mooney, '196 countries approve historic climate agreement', *Washington Post* (online), 12 December 2015, available at: <https://www.washingtonpost.com/news/energy-environment/wp/2015/12/12/proposed-historic-climate-pact-nears-final-vote> (last accessed on 21 March 2017).
[900] 'COP21: UN chief hails new climate change agreement as "monumental triumph"', *UN News* (online), 12 December 2015, available at: <https://news.un.org/en/story/2015/12/517982-cop21-un-chief-hails-new-climate-change-agreement-monumental-triumph#.Vx3cdKv87ww> (last accessed on 25 July 2018).
[901] Fiona Harvey, 'Paris climate change agreement: the world's greatest diplomatic success', *The Guardian* (online), available at: <https://www.theguardian.com/environment/2015/dec/13/paris-climate-deal-cop-diplomacy-developing-united-nations> (last accessed on 25 July 2017).
[902] *Paris Climate Agreement*, Art. 21(1).
[903] Ibid, Arts. 2(2), 4(3), 4(19).
[904] Daniel Bodansky, 'The Paris Climate Change Agreement: A New Hope?' (2016) 110(2) *American Journal of International Law* 288, 319.
[905] John Vidal, Adam Vaughan, Suzanne Goldenberg, Lenore Taylor, and Daniel Boffey, 'World leaders hail Paris climate deal as "major leap for mankind"', *The Guardian* (online), available at: <https://www.theguardian.com/environment/2015/dec/13/world-leaders-hail-paris-climate-deal> (last accessed on 25 July 2017).

the intention of replicating a Kyoto Protocol-styled agreement)—were fiercely rejected by many Third World representatives—who argued for flexibility to pursue development ambitions. Chinese representatives, for example, initially resisted even voluntary emissions targets. A precondition to such targets, they stated, was that the United States—and other First World countries—had to pledge significant emissions reductions, and commit to new development funding.[906] A pledge by these states to establish a US$100 billion fund by 2020 to finance low-emissions development in Third World countries later became a central pillar of the Paris Agreement's legal architecture.[907] Its vision emphasised export-led development and globalised markets as the principal logics of the forthcoming Paris Agreement negotiations.

During the negotiations, both First and Third World countries took pains not to undermine either these logics, or the seemingly stable global order constructed upon them. Delegates crafted a legal-institutional architecture, which could allow states to desist from making concrete emissions reduction commitments. They also ensured weak consequences for non-compliance. Reflecting this, the Paris Agreement's institutional architecture was also based almost exclusively on procedural—rather than substantive—requirements. Fundamentally, the Agreement did not anticipate sanctions or compel remedial actions against states that either sought only to undertake minimal actions to reduce their emissions, or which failed to implement their intended policies. This was a deliberate strategy. It offered governments an opportunity—as Robert Keohane and Michael Oppenheimer observe—to use the Agreement's vagueness, and the discretion it permitted, to 'limit the scope or intensity of their proposed actions'.[908] Arguably, these legal-institutional features diluted the effectiveness of compliance mechanisms created under previous climate treaties.

More specifically, the climate pledges themselves were not binding. The Agreement did not oblige parties to implement their own commitments: what it called 'nationally

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[906] For example, a former Chinese official Sha Zukang explained this position, in a 2009 UN DESA report, in which he wrote that: 'The climate crisis is the result of the very uneven pattern of economic development that evolved over the past two centuries, which allowed today's rich countries to attain their current levels of income, in part through not having to account for the environmental damage now threatening the lives and livelihoods of others'. Sha Zukang, 'Overview', in UN DESA, *Promoting Development and Saving the Planet* (New York: UN, 2009), available at: <http://www.un.org/en/development/desa/policy/wess/wess_archive/2009wess.pdf> (last accessed on 23 March 2018), p. 8.

[907] *Copenhagen Accord*, Decision 2/CP.15, UN Doc FCCC/CP/2009/L.7 (18 December 2009), para. 8.

[908] Robert O Keohane and Michael Oppenheimer, 'Paris: Beyond the Climate Dead End through Pledge and Review?' (2016) 4(3) *Politics and Governance* 142, 142.

determined contributions' ('NDCs'). Instead, the Agreement only required parties to pursue domestic mitigation measures with the 'aim' of achieving their NDCs.[909] Moreover, the Agreement did not require even First World economies to commit to absolute emission reductions, as the Kyoto Protocol had done. Its text merely implored that they 'should' do so. This is not to argue that the NDCs, or international laws, had to be binding in order to be legitimate. Rather, the example merely emphasises that governments took steps to guarantee that the new climate agreement would not threaten to subvert pre-existing legal regimes—many of which had binding force—emphasising the expansion of global trade and markets.

Following this, a number of party representatives—led by the United States—made additional efforts to safeguard the global order. They called for the removal of text that prevented countries from lowering their NDCs at any time. They argued this would ensure that all countries had incentives to put forward higher emissions reduction targets than they would otherwise have done if they were strictly bound by their NDCs.[910] Unlike the Kyoto Protocol's compliance mechanism, therefore, the Paris Climate Agreement did not impose strict emissions reduction obligations. Furthermore, it did not create any enforcement regime with the power to impose sanctions on states that failed to comply with their obligations.

Instead, the Agreement intended that the implementation and compliance of treaty obligations would take place only through an 'expert-based and facilitative' committee. The committee would merely offer advice to non-complying parties, based on a 'transparent, non-adversarial, and non-punitive' framework, as determined by the parties to the Agreement. In offering advice to parties, the Agreement required the committee to afford particular attention to parties' 'respective national capabilities and circumstances'.[911] In all, these carefully-constructed features led some scholars to observe that parties have essentially no 'obligation to comply' with the Paris

[909] *Paris Climate Agreement*, Art. 4(2).
[910] See Jean Chemnick, 'Paris Agreement: Pershing says "high-ambition coalition" could see life post-Paris', *E&E News* (online), 25 April 2016, available at: <https://www.eenews.net/stories/1060036177> (last accessed on 23 March 2018).
[911] *Paris Climate Agreement*, Art. 15(2).

Agreement,[912] it being only a voluntary 'statement of good intentions'.[913] The Nicaraguan government refused to sign the agreement. Its chief negotiator explained that:

> 'the concept of universal responsibility and voluntary commitments doesn't work. Universal responsibility is a spin. It's a spin on historical responsibility and common, but differentiated, responsibilities.'[914]

Other notable commentators—such as scientist James Hansen—made even more critical statements, calling the Agreement a 'fraud' on the basis that it contained 'no action, just promises'.[915] This critique was later supported by the French government's admission, in January 2018, that their country—which hosted the conference and was the Agreement's most vocal proponent—had missed its own emissions goal for the year 2016 by 3.6 per cent over its targeted 447 million tonnes of carbon dioxide equivalent emissions.[916] Some studies also indicate that aggregate global emissions have risen annually to record levels since the Paris Agreement's signing. While Asian countries contributed to two-thirds of this increase, emissions from the European Union also grew by 1.5 percent (or 50 million tonnes) in 2017.[917] Adding further weight to Hansen's opinion was a United Nations report's revelation that, even if individual countries achieved their NDCs, they would be unlikely to conform with the Agreement's long-term temperature goals. Rather, the report stated that countries collective targets would likely

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[912] Richard Falk, 'Voluntary International Law and the Paris Agreement', 16 January 2016, available at: <https://richardfalk.wordpress.com/2016/01/16/voluntary-international-law-and-the-paris-agreement> (last accessed on 2 May 2017).
[913] Anne-Marie Slaughter, 'The Paris Approach to Global Governance', *Project Syndicate*, 28 December 2015, available at: <https://www.project-syndicate.org/commentary/paris-agreement-model-for-global-governance-by-anne-marie-slaughter-2015-12> (last accessed on 21 March 2017).
[914] 'We Do Not Want to Be an Accomplice: Nicaragua Rejects Global Consensus on Voluntary Emission Cuts', *Democracy Now* (online), 4 December 2015, available at: <https://www.democracynow.org/2015/12/4/we_do_not_want_to_be> (last accessed on 29 April 2018).
[915] Oliver Milman, 'James Hansen, Father of Climate Change Awareness, Calls Paris Talks "a Fraud"', *The Guardian* (online), 12 December 2015), available at: <http://www.theguardiancom/environment/2015/dec/12/jameshansen-climate-change-paris-talks-fraud> (last accessed on 21 March 2017).
[916] 'France to revise carbon emissions target after missing 2016 goal', *Reuters* (online), available at: <https://uk.reuters.com/article/us-france-carbon-emissions/france-to-revise-carbon-emissions-target-after-missing-2016-goal-idUKKBN1FB2W0> (last accessed on 1 May 2018).
[917] International Energy Agency, *Global Energy & CO_2 Status Report 2017* (Paris: IEA, 2017), available at: <http://www.iea.org/publications/freepublications/publication/GECO2017.pdf> (last accessed on 1 May 2018), p. 3. For similar estimates, see United Nations Environment Programme, *The Emissions Gap Report 2017: A UN Environment Synthesis Report* (Nairobi: UNEP, 2017), available at: <https://wedocs.unep.org/bitstream/handle/20.500.11822/22070/EGR_2017.pdf?sequence=1&isAllowed=y> (last accessed on 1 May 2018), pp. xv-xvi.

lead to global average temperature rises of between 2.9 and 3.4 degrees Celsius before the end of this century.[918]

Furthermore, the Agreement's new 'Mechanism to Support Sustainable Development' ('SDM') reinforced perceptions of the environment as a territory for market expansion. Closely resembling the CDM, at least in principle, the SDM was established with a view to offering incentives for public and private institutions to partake in host countries' emissions reduction efforts. Contributing states could benefit by counting emissions reductions achieved through these host country projects to fulfil their own mitigation pledges. Unlike the Kyoto mechanisms, however, the SDM extended its eligibility to participants from all countries. Affirming this was Article 6(4)'s phrasing, which suggested that all countries would be entitled to generate, trade, and count SDM units toward their emissions pledges.[919] The mechanism's expanded scope aligned with trends toward neoliberal environmental governance outlined throughout this chapter. With the SDM's inauguration, however, incentives became no longer limited to First World countries. Any public or private institution could now presumably be eligible to reap its financial benefits, regardless of their geographical origins. Underpinning this expanded market, and serving as its linchpin, was a legal-institutional architecture linking operation of the SDM with NDC compliance.

Despite this, the SDM was in fact the last provision to achieve consensus at the Paris Climate Conference. Its Article 6 was the final provision added to the Paris Agreement text before its adoption by the parties to the UNFCCC on 12 December 2015. For the entire preceding six-year period, since the Copenhagen Conference, country representatives uncomfortable with the idea of carbon markets repeatedly called for attention to what they termed 'non-market approaches'. With this, some delegates—typically from ALBA countries—attempted to recognise a wider set of logics and perceptions toward the environment. In short, they urged adoption of alternative ('non-market') mechanisms, rather than those that would merely serve as enablers for major emitters to maintain conventional patterns of industrial growth.

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[918] United Nations Environment Programme, *Emissions Gap Report 2016: A UNEP Synthesis Report* (Nairobi: UNEP, 2016), available at: <https://wedocs.unep.org/bitstream/handle/20.500.11822/10016/emission_gap_report_2016.pdf> (last accessed on 2 May 2017), p. 16.
[919] *Paris Agreement*, Art. 6(4).

Such approaches included a familiar proposal, made by Bolivian representatives, directed at protecting 'Mother Earth'.[920] This reflected the views of some NGOs, particularly one calling itself the Indigenous Peoples Forum on Climate Change. The condensed format of side-events did not enable discussions of any specific traditional knowledge practices—or concrete projects—in depth. So, many references to traditional knowledge as putative 'solutions' remained 'elusive and rhetorical'.[921] However, at one side-event, Felix Santi—leader of an indigenous Kichwa community from Sarayacu in Ecuador—joined other Kichwa leaders to promote a proposal called *Kawsak Sacha* (roughly translated as 'the living forest'). He introduced this proposal in the following terms:

> 'We came from the remote land of Ecuador, upset by the situation of indigenous people, connected with the guardians of the forest, with a connection to the cosmic world. Climate change affects all the living beings that live on this little planet, the Earth. Sarayacu elaborated its living plan and its proposal: Living Forest, *Kawasak Sacha*. Sarayacu's proposal is a space where we apply the ancestral knowledge. Our Yachak, our wise men, interact with the beings who protect the water, the mountains and the forest […] The main objective is to reach a clear recognition by the Ecuadorian state of this space as a sacred bio-cultural heritage, free from oil exploitation. Our call to the international community is to become aware of the necessity to maintain the *Kawasak Sacha*, the living rainforest.'[922]

Speaking during a High-Level Segment of the Paris Conference, Patricia Gualinga—another Kichwa leader—warned participants that '[c]limate change is not a business'. Fundamentally, she explained that *Kawsak Sacha* sought to critique what the Kichwa described as 'a system that threatens life, that intends in different ways to perpetuate colonial law'.[923] Confronting this system, the proposal attempted to offer alternative

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[920] See Submission by the Plurinational State of Bolivia to the UNFCCC, 'Mechanism for Climate Resilience and Sustainable Development', 9 June 2014, available at: <http://www4.unfccc.int/submissions/Lists/OSPSubmissionUpload/53_76_130469512332286242-Bolivia.pdf> (last accessed on 12 August 2015).

[921] Lucile Maertens and Alice Baillat, 'The partial climatization of migration, security and conflict', in Stefan C Aykut, Jean Foyer and Edouard Morena, *Globalising the Climate: COP 21 and the Climatisation of Global Debates* (Abingdon: Routledge, 2018), p. 108.

[922] Quoted in Jean Foyer and David Dumoulin Kervran, 'Objectifying traditional knowledge, re-enchanting the struggle against climate change', in Stefan C Aykut, Jean Foyer and Edouard Morena, *Globalising the Climate: COP 21 and the Climatisation of Global Debates* (Abingdon: Routledge, 2018), p. 152 (emphasis supplied).

[923] Miriam Anne Frank, 'Amazonian Leaders Promote Vision for "Living Forests" at the Climate Change Conference', *Cultural Survival* (online), 7 December 2015, available at: <https://www.culturalsurvival.org/news/amazonian-leaders-promote-vision-living-forests-climate-change-conference> (last accessed on 15 March 2018).

visions of humanity's relationship with the environment based upon the ancestral practices of these often-ignored, unseen, and unheard peoples. Specifically, the Kichwa proposal stated:

> 'The path for achieving common goals in defense of life is to bring together experiences, wisdoms, and good will, to return to the principles of life in which all beings are interconnected spiritually. We call these ways of being "nature", she represents life and to her we are indebted. Therein one sees our conception of life, how we understand life and continuity thereof, it is the simple reason we defend it.'[924]

Relatedly, certain Zapatista groups imagined this form of life as 'a movement of many movements'.[925] At the heart of this challenge, they argued, was to sustain diversity and difference, while unifying social movements. Many of its supporters travelled to Paris to demand systemic changes to the draft Agreement's text. Demonstrations and protests took place across the city, in contravention of a blanket ban on public outdoor demonstrations—imposed by the French government—following terrorist attacks on 13 November 2015. An affiliated group, calling itself the Climate Games, explained that their actions were driven by a conviction that 'the geopolitical and economic dynamics that underpin climate chaos are the same as those that feed terrorism […] all feed the same inequalities that lead to cycles of violent conflict'. The group's written statement, in response to the terrorist attacks, continued: '[t]he biggest threat to security, to life in all its forms, is the system that drives the climate disaster'.[926] It was this, and other similar critiques, that informed the negotiating positions of many ALBA nations.

Yet, they mounted challenges using tactics that had the effect of impeding the objectives that they set out to achieve. One specific diplomatic tactic, for instance, involved some ALBA representatives attempting to nullifying negotiations on market mechanisms by way of tabling text proposals on what they referred to as 'non-market approaches'. Importantly, they relinquished their previous strategy of impeding—or 'blocking'—market mechanisms, moving instead to one of promoting non-markets approaches, alongside more traditional market-based approaches. ALBA governments advocated for

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[924] Ibid.
[925] Joel Wainwright and Geoff Mann, *Climate Leviathan: A Political Theory of Our Planetary Future* (London: Verso, 2017), p. 381.
[926] 'Climate Games Response to Recent Attacks', *Climate Resistance* (online), 1 December 2015, available at: <http://www.creativeresistance.org/climate-games-response-to-paris-attacks> (last accessed on 4 January 2016).

the insertion of such text into an existing draft article dealing with market mechanisms, rather than seeking to add a separate, stand-alone article purely addressing non-market approaches.[927] With this, ALBA negotiators enjoined their demands to a more settled, and visible, work stream. Their choice to pursue this tactic may have been made in an effort to afford protection against what they thought might be some parties' attempts to excise references to non-market mechanisms from the final agreement. After all, attempts to remove such demands were made more difficult if references to them were vested within a set of relatively uncontroversial demands, rather than as an independent article.

As an unintended effect, however, these tactics prevented any visibility of the ALBA proponents' alternative visions without also simultaneously promoting calls for expanded market mechanisms. Put alternatively, the decision of ALBA negotiators to adjoin non-market approaches with markets-based mechanisms meant that alternative visions—such as those of the Kichwa leaders and other indigenous groups—only appeared in the draft agreement as an adjunct to—or alongside—the dominant ideas to which they were opposed. As an unintended consequence of this, non-market advocates effectively ended up breathing renewed life into market-based approaches.

Efforts by some ALBA nations to more precisely articulate the scope of possible non-market approaches—over the course of 2013 to 2016—were met with unrelenting derision from the majority of parties, which supported carbon markets. Seeking to have any references to non-market mechanisms removed, some market proponents shared close ties with multinational fossil fuel companies. For example, the lead markets negotiator for the Panamanian delegation—a role that coordinated the G-77's position—was an active board member, and former president, of a private organisation known as

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[927] See, for example, Submission by the Plurinational State of Bolivia to the UNFCCC, 'Non-market-based approaches under the Convention', 2 September 2013, available at: <http://unfccc.int/files/cooperation_support/market_and_non-market_mechanisms/application/pdf/nma_bolivia_03092013.pdf> (last accessed on 4 January 2016); Submission by the Plurinational State of Bolivia to the UNFCCC, 'Non-market approaches under the Convention', 8 November 2013, available at: <http://unfccc.int/files/cooperation_support/market_and_non-market_mechanisms/application/pdf/bolivia_nma_081113.pdf> (last accessed on 4 January 2016); Submission by the Plurinational State of Bolivia to the UNFCCC, 'Framework for Various Approaches and Non-Market-Based Approaches', September 2014, available at: <http://unfccc.int/files/kyoto_protocol/mechanisms/application/pdf/submission_fva_and_nma_20.09.2014.pdf> (last accessed on 4 January 2016); Andrew Howard, 'UNFCCC Briefing on the Technical Papers on FVA, NMA and NMM', 1 December 2014, available at: <http://unfccc.int/files/bodies/sbsta/application/pdf/sbsta_techpapers_briefing_nov2014.pdf> (last accessed on 4 January 2016).

the International Emissions Trading Association ('IETA').[928] IETA was established by a number of companies—including fossil fuel giants British Petroleum and Rio Tinto—with a view to ensuring that global climate policies caused only 'minimal economic harm'.[929] Its members now also include many of the world's major fossil fuel companies: including Chevron, BHP, and Statoil.[930]

Nevertheless, non-market proponents steadfastly resisted these influences. As such, market-based approaches remained highly contested in the Paris Conference's preparatory negotiations. To capture these discussions adequately, without allowing them to infect the rest of the draft agreement, the chairs of this work stream reduced both market and non-market proposals to a single sentence of a draft negotiating text, which was publicly released in October 2015.[931] Following this, during the first week of the Paris Conference—in December 2015—many representatives voiced profound concerns about there being insufficient time to deliver a compromise text. Fierce divisions remained between non-market and market proponents until the final moments.[932]

At this moment in the proceedings, non-market advocates—fearing omission of their own text from the Agreement—finally conceded. They agreed to recognise market approaches, alongside non-market approaches, within a stand-alone article of the Agreement. These, they concurred, could operate as a set of voluntary mechanisms with which parties could use to meet their emissions reduction targets. At the signing ceremony of the Paris Agreement, a number of heads of state—from Canada, Chile, Ethiopia, France, Germany and Mexico—as well as leaders of the World Bank, IMF, and OECD also announced an agreement to price carbon emissions. They set a challenge to 'turn the Paris Agreement into action', principally by doubling the coverage of carbon pricing to 25 per cent of

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[928] Corporate Accountability, *Polluting Paris: How Big Polluters are undermining global climate policy* (Boston: Corporate Accountability, 2017), p. 17. See also, Partnership for Market Readiness, 'Expert: Andrei Marcu', available at: <https:// www.thepmr.org/expert/andrei-marcu> (last accessed on 2 April 2018).
[929] International Emissions Trading Association ('IETA'), 'Our History', available at: <http://www.ieta.org/page-18201> (last accessed on 15 March 2018).
[930] IETA, 'Our Members: Industry, Energy & Power', available at <http://www.ieta.org/page-18201> (last accessed on 15 March 2018).
[931] 'Non-paper: Note by the Co-Chairs', *Ad Hoc Working Group on the Durban Platform for Enhanced Action*, UNFCCC Doc ADP/2015/8/InformalNote (5 October 2015), available at: <http://unfccc.int/resource/docs/2015/adp2/eng/8infnot.pdf> (last accessed on 12 February 2018).
[932] See Andrew Howard, 'Voluntary Cooperation (Article 6)', in Daniel Klein, María Pía Carazo, Meinhard Doelle, Jane Bulmer and Andrew Higham (eds), *The Paris Climate Agreement: Analysis and Commentary* (Oxford: Oxford University Press, 2017), p. 183.

global emissions by 2020, and 50 per cent coverage within the following decade.[933]

As a result, non-market proponents paid a high price for making visible their worldviews through international law. Their visions—of an alternative set of relations between humanity and the environment—became dependent on the existence of expanded markets for trading greenhouse gas emissions. This authorised not only the continuation, but also an expansion, of the very phenomenon that ALBA representatives sought to subvert. So, these non-market proponents reified a now-familiar conception of the environment, even if that was not the objective that they had sought to achieve. This environmental vision was one in which the environment persisted as a precondition for export-based trade: not only a warehouse of raw materials and a sink for waste pollutants, but also a new territory for the expansion of the market, and ultimately, a means for sustaining a dominant vision of endless, unbridled expansion of the market.

Conclusion

I have argued, throughout this chapter, this moment consolidates pre-existing forms of subjectivity and a global ordering of things, species, and people. My story demonstrates international law's ongoing role in this phenomenon. It is possible to gain a sense of hope from the fact that endeavours to mount opposing and counter-hegemonic claims appear to be intensifying. Yet, principally, I have observed how these competing, aberrational, and subaltern logics became strategically de-radicalised, appropriated, transformed, and integrated—through the actions of lawyers, diplomats, and institutions—into the service of modified hegemonic forms. Importantly, these efforts tended to re-establish consent in the pre-existing global order.[934] This took place by creating new tradeable commodities for accumulation, and investment, to enlarge the operation of a supposedly self-regulating market. It also had an effect in transforming the ways in which many opponents of the global order manifested themselves, and how they articulated their claims.

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[933] Virginia Wiseman, 'Implementation Update: As Governments Prepare for Paris Agreement Signing Ceremony, Carbon Pricing in the Spotlight', *IISD Reporting Services* (online), 21 April 2016, available at: <http://live.worldbank.org/turning-the-paris-climate-agreement-into-action> (last accessed on 11 July 2018).

[934] The phenomenon might also be regarded as a variant of what Balakrishnan Rajagopal calls the 'instruments effect', in which radical demands had a 'paradoxical effect of expanding and strengthening international institutions' engaged in environmental activities. See Rajagopal (2003), pp. 76-77.

As a result, the logic of global environmentalism is now beholden to the view that serious actions should be taken to address a host of problems. Yet, the logic of market-oriented management itself must apparently remain unchallenged. This tends to reify a global vision in which reverence to the sacred idols of self-regulating global markets and trade liberalisation intensifies. With this, I have observed how law has had a constitutive role in enlarging the market-mediated production and fostering new avenues for the exchange of resources, as well as suppressing resistance to them. Thus, the environmental vision is one transformed into a constantly-enlarging domain of monetary value.

In short, the environment's meaning might be seen as exhibiting some similar properties to that of polymers. Its underlying patterns and structures were continually replicated. When faced with opposition, it displayed a durability and a malleability, redefining itself—through international law and institutions—in ways that fulfilled two fundamental criteria. Firstly, it has responded malleably to serious observable problems such as species extinctions, climate change, deforestation, and pollution. Secondly, the environment retained a durability, reforming itself to sustain the logic of globalised markets, and expansion of economic growth. Through this phenomenon, law's vision of the environment has had an effect in rationalising the existing global order as an inevitable product of the world in which we live. That stance underwrites a resigned acceptance that market expansion and green economic logic is the environment's best, or only, hope. It also promotes the devaluation of traditional cultures and indigenous experiences. Accordingly, there is little resulting sense that any conflicts between these ideas may indeed be irreducible. Rather than any radical reconfiguration, therefore, contemporary legal-institutional innovations have merely tended to reproduce, and reify, intrinsic parameters of the existing global order. This ended up stultifying international law's critical—or emancipatory—potential.

Concomitantly, a likely effect of the resulting regulatory responses was to concentrate greater power and resources in the hands of experts: the techno-scientific, financial, and industrialist acolytes possessing the knowledge and power to implement them. This might well contribute to sustaining the forms of life, and a global ordering, upon which those elites are beholden. The pollutive by-products of these logics—replicated through international summits—accumulate in international treaties, institutions, and ultimately, in physical spaces such as the Great Pacific Garbage Patch. It is, in this sense, that law has become imbricated in transforming our collective attitudes and responses to

environmental problems. Thus, from Kyoto to Paris, perhaps those radical voices seeking to destabilise the status quo were left forsaken: their hearts emboldened with hope, but their feet planted on ever-more unstable ground.

CHAPTER SEVEN

CONCLUSION

'Our strategy should be not only to confront empire, but to lay siege to it. To deprive it of oxygen. To shame it. To mock it. With our art, our music, our literature, our stubbornness, our joy, our brilliance, our sheer relentlessness – and our ability to tell our own stories.'

—Arundhati Roy, *War Talk* (2003)[935]

Throughout a long span of history, international law has contributed to our understanding of key concepts. These concepts have also, in turn, helped inform developments in international law. Many governments, international organisations, civil society groups, and environmental campaigners have sought to marshal international legal rules and techniques to address a diverse range of (global) problems. These include the problems of industrial pollution, climate change, species extinctions, the clearing of forests, poverty, and income inequality. Their putative 'solutions' have tended to involve enlarging mechanisms for financialising ecosystems, hastening techno-scientific and market-friendly innovation, as well as expanding the growth of national economies. Yet, in all of this, there is little sense that the problems these policies aim to solve might themselves be legally-produced.

With this in mind, the central question that I have sought to investigate in this thesis is how attempts to deploy international law might actually be imbricated in the reproduction of these problems, by working to shape—or transmit—particular perceptions of the natural environment. As we have seen, international law—with its global reach and appearance of universality—has had a significant role in this phenomenon. In this, I have conceptualised law itself as a form of story-telling, or technique of narrative practice. The stories we tell through law make up some of the equipment by which we navigate reality. They also create their own realities.

This thesis forms part of the body of international legal scholarship that endeavours to highlight law's constitutive role in configuring interactions between what we typically

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[935] Arundhati Roy, *War Talk* (Cambridge: South End, 2003), p. 112.

refer to as humanity and nature. My work contributes to knowledge in this area by demonstrating some of the historical contests, and oppositional struggles, through which specific configurations of knowledge-power have been shaped by—and also themselves shaped—international law. Put simply, my original contribution to scholarship has been to demonstrate how international law has historically reproduced particular stories about nature, which have helped to preserve the power and privileges of a small minority of political actors. More broadly, we might see these stories as helping to sustain a specific formation of global ordering.

These stories—or visions—about nature, I argued, are about human exceptionalism, an ever-expanding control by a minority of wealthy techno-scientific industrialists, perpetual growth of national economies, and the ability to surpass all ecological limits. Following this observation, I suggested that the reproduction of such stories about nature operate in ways that stymie international law's potential to regulate environmental problems, reduce poverty, inequality, or reconfigure the global economy to better serve the interests of the world's poorest peoples. As I have emphasised throughout this thesis, existing legal doctrines and techniques with regard to the environment are largely the products of active efforts—by powerful governments, international institutions, and NGOs—to partly neutralise, or absorb, latent subaltern stories in ways that reinforce dominant languages and logics. Their underlying impulse is perhaps exemplified in a handwritten letter by outgoing United States President Barack Obama to President Donald Trump in January 2017, which read: '[i]t's up to [some of] us, through action and example, to sustain the international order […] upon which our wealth and safety depend'.[936] Measures implemented in furtherance of this objective have helped stabilise international law, and have held the discipline's inherently self-deconstructive urges at bay.

Expanding upon this central claim, the first following section provides a summary of each major claim that I have made over the course of this thesis. Section II will then offer an exposition of what this might mean for the practices and potential of international law to achieve the aspirations of peoples seeking to deploy it as an instrument to resolve global problems. Finally, in Section III, I will conclude this thesis by summarising my central

[936] Kevin Liptak, 'Exclusive: Read the Inauguration Day letter Obama left for Trump', *CNN* (online), 5 September 2017, available at: <https://edition.cnn.com/2017/09/03/politics/obama-trump-letter-inauguration-day/index.html> (last accessed on 25 July 2018).

story, and surmising how my story might help to reimagine international law in ways that could better reduce the discipline's present maladies.

I. Clarification

1.1. Civilisation and Natural Resources

In Chapter Two, I sought to engage—using Linnaeus' preserved fish as a symbol—with the question of how classical international legal thought imposed a rigid human edifice upon an infinitely complex and variable world. This opening substantive chapter tracked the emergence of a bifurcation, and categorisation, of what I called civilisation from the idea of nature through a number of works—written between the sixteenth and eighteenth centuries—by key personalities in international legal thought. These early works of classical international jurisprudence imagined nature as an unchanging and immutable collection of resources. Through these works and instruments, I suggested, the consumption of natural resources became a fundamental part of a 'civilised' (European) identity. I argued that this framing of nature was an antithetical reflection against which civilised peoples could identify themselves. With this, I argued, the idea of an external nature became a constitutive feature of the sovereign state—and thus, international law—itself. Envisioned in this way, I demonstrated how perceptions of a savage and untamed state of nature also served as justification for the colonisation, extraction, and utilisation of non-European lands and peoples.

Turning to consider the means by which these logics gained a foothold within international law, I engaged with some European accounts of the rapacious effects of reigning extractive logics and industrial practices upon what were widely regarded as previously unsullied lands. Colonial outposts—particularly those located on distant islands—were where European botanists and colonists became most aware of their effects in transforming landscapes and ecosystems. By the late-eighteenth century, I demonstrated, the task of finding lost paradises—which had sparked some European voyages to discover new worlds—seemed incompatible with the colonising mission's task to exploit new lands and peoples. Importantly, however, any apparent contradictions—or anomalies—seemed to find resolution through certain international legal-institutional innovations aimed at protecting, and managing, natural resource use. Specifically, I suggested that European powers turned to physiocratic philosophies and

techniques. Seeking to conjoin the discipline of political economy with the natural sciences, physiocratic principles became encoded into international legal instruments. Fundamentally, I argued that this had a constitutive effect in inscribing a narrow meaning of nature—as a warehouse of resources that should be exercised for the purposes of sustaining civilised life—into the backbone of international law. As a result, the reverberations of physiocracy can still be felt at law's disciplinary heart.

1.2. Conservation and the Economy

In Chapter Three, I explored international law's role in framing nature during the two decades following the Second World War. I observed how the humble tsetse fly became an objective, an effect, and a symbol of international law's operation during this period. Nature, I argued, became a central feature in the emergence of an object that called 'the economy'. The chapter demonstrated how a key task of post-war international lawyers, and the newly-formed international institutions, was to conserve the supply of—and the sustained access of wealthy First World countries to—essential natural resources, including iron ore, phosphate, and oil. In other words, this international legal construction of nature became a means through which powerful states and actors sought to impose a new geopolitics, and ordain a new global order. This movement culminated in the 1949 United Nations Scientific Conference on Resource Conservation and Utilization ('UNSCCUR'), the organisers of which saw its role as finding methods to expand resource supplies for wealthy countries.

Recognising downfalls in this approach, however, some resistant groups attempted to confront them by convening a separate conference—the International Technical Conference on the Protection of Nature ('ITCPN')—which was timed to coincide with the UNSCCUR. During its ensuing discussions, most of the ITCPN's participants became preoccupied with how to reduce the world's demand for resources, and how to preserve areas designated as 'natural'. In light of impending budgetary pressures and threats of political exclusion, the ITCPN organisers eventually felt compelled—in the years after the conference—to soften what many came to consider as radical views. I witnessed how these so-called preservationists embraced more conservationist ideas as a strategy to ensure that their voices would be heard by government counterparts. So, I suggested that while their efforts in convening the ITCPN were successful in garnering public support for nature protection, these became ultimately redirected toward

promoting conservationist ideologies, rather than advancing their own logics of 'preservation'. Subsequently, this culminated in the establishment—through international legal instruments—of a number of African national wildlife parks and mega-dam projects. African leaders became persuaded that the projects could help to foster a heightened sense of national identity within their newly-decolonised nations, and propel them toward the ranks of advanced economies. As we saw, however, these projects often had detrimental effects upon the peoples living adjacent to them.

1.3. The (Human) Environment

Chapter Four provided an analysis of the 1972 Stockholm Conference. In it, I focused my attentions on illuminating how 'the environment' emerged as a distinct object, and field, of international law. Further, I investigated the interests for whom the environment was constructed to serve. Comparing claims made by some First and Third World governments, I explained how concerns about the impacts of environmental regulations upon development aspirations—as understood in solely economic terms—emerged as a major source of friction between the conference participants. Added to this, alternative claims were invoked by those seeking to critique other important issues in world affairs. These included renouncing imperialism, racism, human persecution, housing refugees, stratospheric pollution from high-altitude aircraft, as well as prohibiting ecocide and nuclear weapons. I then highlighted strategies through which these struggles, and stalemates, between competing aspirations became neutralised. I suggested this occurred through a strategic turn to techno-scientific, industrial, and financial logics, which became central features of the conference's outcome document. Such a strategic move, I explained, was designed to ensure the support of governments that had been reticent to engage in the conference process. As such, I concluded that it was through these primary referents that the environment became forged as an international legal-institutional object.

Alongside this, I suggested that powerful governments and non-governmental organisations ('NGOs') conspired to move some of the more contentious 'political' issues under discussion beyond—or outside—the environmental regime's scope. Many such issues became consigned to discussions in other international fora. Meanwhile, those participants daring to raise ostensibly controversial issues were chastised for trying to subvert the international law-making process, deeds that invoked widespread condemnation. As a consequence of these, I argued that the Stockholm Conference

ratified a specific vision of the environment, which was made to appear universal. Importantly, I also suggested this was achieved in a way that elevated logics destined to protect the political-economic interests of a number of wealthy First World countries—particularly the United Kingdom and the United States—as well as their advanced techno-scientific industries. Simultaneously, this environmental sphere excluded logics that threatened to subvert a fragile global order. Subsequently, I concluded that the environment became imagined through international law—during this foundational moment—in a way specially adapted to sustaining the economic privileges of a small group of financiers, techno-scientific industrialists, and their bureaucratic allies. Thus, law's vision of the environment became a vehicle for sustaining the structural inequalities of the global system. This was despite of the concerted efforts of some Third World commodity exporters—during the mid to late-1970s—to use environmental issues for the purposes of reorienting the global order toward more adequately addressing resource distribution issues.

1.4. Sustainable Development

With Chapter Five, my focus shifted to the construction of sustainable development as an international legal concept. To this end, I explored the debates and discussions of two international bodies: the World Commission on Environment and Development ('WCED'), and the 1992 Rio Convention. I used the Earthrise image to highlight a disparity—between transcendence and grounds—embedded within the idea of sustainable development. I observed that, while appearing to meld economic development with heightening environmental concerns, the resulting conceptual marriage merely obscured tensions between them. It also reaffirmed a global order giving preference to the interests of wealthy nations and a minority of globalised elites. I concentrated on two logics that allowed this marriage to take place. Firstly, sustainable development framed poverty as the principal cause and effect of environmental degradation. Economic growth then became the focus, and solution, of this vision of poverty. Secondly, I suggested that the commission downplayed the role of affluence in the lifestyles of the world's richest nations and peoples. It also negated the possibility of limits to growth. Instead, the commission emphasised technological innovation as a purported means to achieve a 'growth of limits'.

These logics, I demonstrated, attracted fierce criticisms from those peoples claiming to speak 'from the ground'. Yet, they were eventually side-lined through a range of tactics by the WCED's Secretary-General, along with some of its commissioners. Resorting to assumptions about technological optimism, and the need for financial transfers, they sought to neutralise radical arguments about the existence of ecological limits. This environmental vision became codified in the Rio Declaration. I demonstrated—by discussing the dynamics of its negotiation process, as well as those of its associated agreements on climate change and biodiversity—how parties took great pains to ensure that this vision would cause no disruption to the prevailing global techno-scientific, industrial, financial system. I argued that, as a result, the environment became reframed in a way that made it contemporaneous with the ideology of development, and hegemony of the pre-existing global system. At the same time, it erased—from the image of contemporary international environmental law—struggles of the world's poorest peoples—particularly those living with minimal impacts on pollution, deforestation, and climate change—suffering most acutely from the effects of these problems.

1.5. The Green Economy and Natural Capital

Finally, Chapter Six sought to investigate how international legal instruments on environmental issues rapidly expanded after the Rio Earth Summit. With this impetus, I began by recognising a heightened awareness of, and resulting endeavours to disrupt, dominant logics with regard to the environment. Exploring the onset of competing, aberrational, and counter-hegemonic logics, I suggested that these were de-radicalised and integrated into the service of modified hegemonic forms. Using the image of plastic waste as a framing technique, I argued the significance of this phenomenon was that it re-established consent in reproducing pre-existing forms of subjectivity and global ordering. This promoted new fields of economic activity, enlarging the operation of a supposedly self-regulating global market. Simultaneously, I observed in this episode international law's ongoing role—chiefly through actions of lawyers, diplomats, and institutions—in helping to transform the conditions under which many of the dominant logic's opponents ended up articulating their own demands.

In all, I explained that these factors reified familiar conceptions of the environment as a warehouse of static, inert, and tradeable raw materials used predominantly for the benefit of an exclusive minority of human beings. By the same token, law helped imagine—and

create—new readily-exchangeable commodities. Problems associated with the environment were made to seem resolvable purely through the rigorous application of technologies, finance, industry, markets, and economic growth. While this logic accepted the need to address problems relating to the environment, it sustained growth of the market as an unimpeachable objective. Thus, in retelling this episode, I highlighted the ongoing constitutive role of international legal regimes in helping to open new avenues for moving capital, and globalising markets, as well as defusing resistance to them. I suggested that this reaffirmed hegemonies, while devaluing traditional knowledge and ecological practices. Finally, I concluded by suggesting that international law has transformed our collective attitudes, and responses, toward environmental problems at the same time that it has reconstituted, rationalised, or sustained vital characteristics of the existing global order.

II. Convocation

The portrait emerging from Chapters Two to Six is that of international law's role in shaping perceptions about *nature* and the *environment*. Fundamentally, this was a story about nature as a warehouse of raw material resources, which could be conserved—particularly through techno-scientific and financial means—to ensure infinitely expanding national economies, poverty alleviation, and growing affluence. Put simply, my story describes how—over a long period between 1539 and 2015—this particular story was imposed, and sustained, through legal doctrines and institutions. The outcome, I have argued, is a vision—or story—of the environment that aligns with an industrial and trade-friendly, market-based global order.

Moreover, my story observed how this legally-produced vision precluded alternative conceptions of nature. I suggested that law's delineation—or delimitation—of nature operated in ways that might be symbolised by a set of images: Linnaeus' fish, the African tsetse fly, the dromedary camel, the Earthrise photograph, and the Great Pacific Garbage Patch. Importantly, these images—and the episodes they represent—may help to demonstrate how our legal and political choices with regard to addressing problems associated with nature continue to be, in many ways, predetermined. As a consequence, it may be possible to witness what Theodor Adorno and Max Horkheimer might have

called our 'freedom to choose what is always the same'.[937] Law appears 'chimerical', in the sense that it creates a reality that is largely an eternal, unchanging portrait of itself.

With the aim of opening up those concepts for critique, however, I have also observed how—at various moments—struggles over nature's meaning were fought within international law. Put simply, there were competing meanings at stake. These emerged from a range of anxieties. We saw that these anxieties included, firstly, the need to protect the image of tropical island paradises as metaphorical sites for the Garden of Eden. Secondly, proposals for reducing post-World War Two demand for essential raw materials. Dissensus then converged, thirdly, around issues of access to technology and finance. Fourth, fears intensified with regard to the problems of poverty and limits to growth. Subsequently, international law's observed lack of effectiveness in curbing global environmental problems led to further anxieties, and calls for greater attention—particularly by corporate actors—to resolve those problems under the rubric of the green economy and natural capital valuations.

Importantly, my story has enriched views that the idea of *nature*—or the *environment*—is not itself an inherently stable concept. Far from being immutable, invulnerable, or inevitable, nature's meanings are highly contested. What I have repeatedly suggested, however, is that law responded to these competing stories and contexts. My close study has brought to the surface international legal and institutional practices that have neutralised, co-opted, absorbed, delegitimised, or reallocated opposing claims of those who attempted to depart from dominant stories about nature. Such demands were made by a wide range of different representatives: that is to say, government officials, civil society groups, indigenous peoples, and radical scholars. Nevertheless, these rival preferences became occluded and ostracised through the deprivation of funding, malicious allegations, forced resignations, intimidation, as well as other forms of direct and indirect coercion to downgrade the effects of those rival claims.

An effect of these strategies, I argued, was to bring about the recurring reconstruction and reconfiguration of meanings ascribed to the environment. Yet, these merely occurred in ways that reaffirmed the continuity of dominant logics and modes of understanding it. The result, in other words, was to reproduce an interpellation that successively canonised

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[937] Max Horkheimer and Theodor W Adorno, *Dialectic of Enlightenment: Philosophical Fragments* (Edmund Jephcott trans, Stanford: Stanford University Press, 2002), p. 136.

the ideas of civilisation, national economies, technology and financial transfers, development, trade liberalisation, as well as globalised markets. Legal doctrines and institutions knitted these logics together to appear as 'a global ethic'.[938] This interpellation, I argued, ensured that the entire world—and all life upon it—would continue to function in a way that would not fundamentally disturb the continuity of techno-scientific, industrialist, trade-friendly, and market-based logics. It was with reference to these logics that law repeatedly responded, and orientated itself, to opposing claims that were external to it. Meanwhile, law helped foster a rapidly transforming world in which more of the poorest peoples now live in its most toxic areas, and where species extinctions are increasing at an unprecedented rate—among other noticeably transformative effects—for the purposes of sustaining a familiar global system. It is, in this sense that I have argued the concept of nature both sustains— and is sustained by—international law.

Several additional points extend from this analysis. International law's framing of the environment in the ways I have described gave rise to a specific form of violence. It helped to perpetuate inequities—within species, peoples, and societies—by covertly reifying the privileges of some over others. As we witnessed, these were—at various times—contested. Yet, lawyers, government representatives, and even fellow activists have deployed law in attempts to seal cracks in the global order, repair its roofing, and reinforce its pillars against threats. For example, we are now able to observe that the promotion of 'sustainability' appears as a means to sustain the comfort levels of the world's wealthiest peoples, without degrading the natural capital, resource base, or stable environmental conditions required to do so.[939] This is the objective to which law's framing of the environment remains focused. Yet, in reorienting the environment to serve this outcome, existing laws and institutions have significantly affected many of the world's peoples and species. Meanwhile, their benefits tend to accrue to plutocrats, wealthy techno-scientific industrialists, financiers, and their bureaucratic allies.

Put simply, my observations about international law are more than just about the discipline's efforts to arrest the exhaustion of resources, the loss of ecosystems, or the

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[938] Interestingly, this creation of a global ethic was one of the Brundtland Commission's overarching objectives. See WCED (1987), p. 308.
[939] Paul Kingsnorth, *Confessions of a Recovering Environmentalist* (London: Faber, 2017), p. 142. For a similar argument, see Nick Richardson, 'If such a thing exists' (2016) 16(38) *London Review of Books* 28.

transgressing of ecological limits. My story is about how the discipline orders the world, partly through its framing of the environment. In addition to its devastating social implications, this framing contributes to the clearing of forests, production of greenhouses gases, species extinctions, pollution, overfishing, and the bleaching of coral reefs. Perhaps a comforting prospect, however, is that the concealment of these effects is never complete. Indeed, repeated invocations of the need to achieve consensus in international summits reveal the presence of an underlying instability. These also disguise the fact that demands are always being made, political processes are always at stake, which can offer launching pads for repoliticising the environment. By gaining a more acute understanding of the discipline's 'dark sides'[940]—and struggles against its continuity—possibilities to achieve alternative, less violent, or less unjust practices of international law might become visible.

My story, therefore, has been non-metaphysical in its orientation. For this reason, I remain hesitant to prescribe—or overtly embrace—any explicit normative solutions to the problems that I have identified over the course of this thesis. Any such attempt to unilinearly deduce alternative precepts of global ordering—or 'perfect justice'[941]—might risk succumbing to—or reaffirming—the very transcendental and imperialist urges that I have strived to resist. Notwithstanding this, I have—throughout this thesis—offered glimpses upon alternative possibilities. It is perhaps, in this sense, that my story holds within it the seeds of its own alternative futures and interpretive possibilities. Intrinsically, every legal doctrine or practice is partly the result of a battle over the stories that are told, who tells them, who is heard, and what is included within its scope. Changing our stories—by unearthing old ones, breathing them back to life, while weaving new elements

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[940] I take the sense of this phrase from David Kennedy, *The Dark Sides of Virtue: Reassessing International Humanitarianism* (Princeton University Press, 2nd ed, 2005).

[941] Although not strictly relevant to this thesis, transcendental alternatives proposed by scholars include Ehrlich's countenances of compulsory sterilisation [see Paul Ehrlich, *The Population Bomb* (New York: Ballantine Books, 1968), pp. 176-177]; Meadow's 'visioning, networking, truth-telling, learning and loving' [see Meadows (1972), p. 271]; Hardin's abandonment of the underdeveloped world [see Garret Hardin, *Living within Limits: Ecology, Economics and Population Taboos* (New York: Oxford University Press, 1993)]; Heilbroner's monastic government combining 'religious orientation with a military discipline' [see Robert Heilbroner, *An Inquiry into the Human Prospect: Looked at Again for the 1990s* (New York: Norton, 1991), pp. 176-177]; Ophuls' establishment of a governing class of 'ecological mandarins' [see William Ophuls, *Ecology and the Politics of Scarcity* (San Francisco: W H Freeman, 1977), p. 163]; Brown's greater faith in localized citizen action, as well as a stronger United Nations [see Lester R Brown, Christopher Flavin and Sandra Postel, *Saving the Planet: How to Shape an Environmentally Sustainable Global Economy* (London: Earthscan, 1992), p. 179]; and Westra, Taylor and Michelot's 'ecointegrity' approach to policy-making [see Laura Westra, Prue Taylor, Agnès Michelot, *Confronting Ecological and Economic Collapse: Ecological Integrity for Law, Policy and Human Rights* (Abingdon: Routledge, 2013)].

into them—is foundational to effecting changes in the world. These alternative stories represent forms of dissensus. They hold the possibility of rupturing what might otherwise appear to be a pacified and neutered global order. In doing so, they demand that the world could, and should, be ordered in alternative ways.

Consequently, I have drawn attention to the fact that the required solutions—rather than having not yet been launched or invented—are actually already present within the world. An achievable goal, therefore, may be to open up pathways to amplifying the power, reach, and inclusion of these existing options. Making law's exclusions publicly visible through story-telling are the necessary first steps toward realising this outcome. While 'amnesia produces despair', theologian Walter Brueggemann notes, our grounds for hope reside in the records and recollections of the past.[942] Importantly, this is not a perfectionist or reductionist move. Its orientation is emancipatory and subject to continual revision. Through this process, what is now tolerated as a part of the law might eventually come to be regarded as intolerable. Equally, what was once excluded by law might eventually become included within it.

An opposing force to that of 'sustaining' is perhaps one of *disruption*. With this in mind, reviving latent stories—those that reside beyond the existing boundaries of positive law—may help to disrupt the present, opening new possibilities for what might be achievable. International law is itself a discipline with apparently global scope and applicability, and is therefore perhaps uniquely positioned to enact, and enliven, alternative stories about nature. Proceeding from this understanding, I have tried to tell a history that seeks to bring out, and better harness, law's critical potential. This history has sought to better integrate alternative languages and logics, particularly those drawing attention to life's complex diversity, contingency, and dynamism. Such an approach opposes quests for fixed or static universal referents. I hope that such an understanding might help to emancipate law's critical potential insofar as it can make our world seemingly more contingent, open, and unstable than it would otherwise appear to be. The story presented in this thesis might thus help to awaken alternative legal possibilities for creating natural

[942] Quoted in Rebecca Solnit, '"Hope is an embrace of the unknown": Rebecca Solnit on living in dark times'. *The Guardian* (online), 15 July 2016, available at: <https://www.theguardian.com/books/2016/jul/15/rebecca-solnit-hope-in-the-dark-new-essay-embrace-unknown> (last accessed on 31 July 2018).

environments, beyond those that merely adhere to preconceived outcomes dictated by power, capital, techno-science, markets, and imperialism.

III. Coda

People across the world continue to invest much hope and effort in finding international legal solutions to the world's many injustices. The terms 'nature' and 'the environment' represent foundations upon which some such claims are made. They are words that continue to mobilise much thought and action. For example, a simple Google search of the word 'environment' brings up more than 2.3 billion internet pages. The latest major iteration of international efforts to address environmental issues has been that of the Sustainable Development Goals ('SDGs') and the Paris Climate Agreement. These processes marshalled immense political engagement and resources. The resulting outcomes sparked jubilant celebrations. It has not been my objective to negate those efforts, or to claim that their underlying motivations are incorrect. My research has, however, demonstrated that there is still a type of blindness on the part of many lawyers and policymakers. It appears that, perhaps, they remain in a fantasy world still.

This has become a reality about the dominance, and privilege, of a minority over all other life on the planet. It is about ever-expanding control by wealthy techno-scientific industrialists. It affirms the perpetual growth of trade and market-friendly, industrialised national economies. It is a fantasy in which these economies are supposedly capable of conjuring technological means to surpass all ecological limits. Clearly, this story has had real, transformative, and disastrous consequences. Nonetheless, most actors continue to rehearse the provisions of this global order, which include a panoply of concepts that constrain how we think about nature. Led by these inherited structures of thought, many of those tasked with resolving our most pressing (environmental) issues continue to fiddle while Rome burns, both metaphorically and literally.

This thesis has strived to bring one of these strands into view. It has called our perceptions and actions into question at a deeper level. This is my back-story to a front-story which is often told about the proliferation of treaties, acrimonious debates between the First and Third Worlds, and the progressivist march toward a supposedly optimal rule of law with regard to the environment. The result has been not only an academic discussion, but also an inescapably public one. Indeed, I have sought to connect a number of theoretical

strands with the work of contemporary dissidents to show how the stories we tell about nature and the environment are in fact contingent. Far from being atavistic or backward, some of these dissidents were in fact far-sighted. They are those with the least culpability for problems like climate change, species extinctions, and pollution, but who suffer inordinately from them: these are the indigenous peoples, subsistence farmers, women, endangered animals, and other marginalised lives across the world. It is these dissidents that have perhaps been the most rational of all, more so than those progressive modernists who continue to peddle familiar, but ultimately destructive, fantasies.

In this story, I have also suggested that law responded to this dissensus in specific ways. Oppositional struggles altered—but fundamentally retained—a dominant, hegemonic vision of nature. This enabled the preservation of preferences, priorities, and interests of some species and peoples over others. Put simply, these changes in the environment's meaning have helped sustain a particular formation of global ordering. This has been the lynchpin of my argument. While there is a huge amount of attention on achieving 'sustainability', and much is now made to appear 'sustainable', other scholarship to date has not adequately explored what is in fact *sustained* when we talk about the environment in international law.

Some contemporary writers—like Naomi Klein and George Monbiot[943]—have made significant efforts to investigate how neoliberal practices impede our ability to resolve environmental problems, such as climate change. Yet, these authors have not explicitly examined international law's role in reproducing these problems. They have also not ventured to trace how law's visions—or stories—about the environment have shifted in response to dissensus. As a consequence, it is one thing to argue—as many celebrated scholars continue to do—that we should reduce oil production, embrace renewable energy, ban carbon markets, or rapidly transition toward becoming steady-state economies. In focusing attention on these solutions, however, scholars have tended to ignore how law—and its framing of the environment—actually prevents us from achieving these outcomes.

The result of this conceptual history, therefore, is to show how we have arrived at where we are in the present. It illustrates how law has had an effect in both shaping—and been

[943] See generally, Klein (2014); George Monbiot, *Feral: Rewilding the Land, the Sea, and Human Life* (Chicago: University of Chicago Press, 2014).

shaped by—current debates about the environment. My story is a questioning of received verities, and an attempt to grapple with these from a historical perspective. It helps to explain how critics speaking 'from below'[944]—such as the Bolivian community leaders at Paris in 2015—have remained so much on the back foot, struggling to have their voices heard within the hallowed halls in which international law is written. At the same time, my story accounts for the construction, and sustaining, of dominant narratives. These included civilisation, the national economy, conservation, the human environment, sustainable development, the green economy, and natural capital. As I have repeatedly suggested, the benefits of such stories tend to accrue to a small minority of the world's people.

Yet, multiple stress fractures remain. History, in other words, is not a monolith. We are able to tell different stories about nature, and embrace different forms of ordering. I have, in this sense, endeavoured to tell an alternative, ruptural story about international law and its vision of the environment. This acknowledges that international law's existing stories about the environment might prove too limiting—and be encumbered by too much historical baggage—to be used solely as a basis for effective political action. Consequently, my story has sought to reclaim—rather than reinforce—the existing legal-political and global order. We might thus represent this story as the performance of a 'politics *for* the environment'.[945]

In pursuing this aim, my story has sought more broadly to unveil, and contest, exclusions. It has brought the structures of domination, and subjectivities, of established orders to the surface with a view to reconfiguring them. In openly recognising the conflictual plurality of different social-ecological orders—and renewing spaces in which these can clash—such an approach might help to more fully array the legal-political choices before us—like a constellation imagined out of the infinite lights of the night sky—to offer citizens

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[944] The phrase 'from below' is taken from Rajagopal (2003). Baxi describes this as the 'sites and subjects that have traditionally been positioned as the "others of international law"'. Upendra Baxi, *Human Rights in a Posthuman World Critical Essays* (Oxford: Oxford University Press, 2009), p. 2. He also observes that 'there is no such thing as an international environmental law from below'. See also Upendra Baxi, 'Late Holocene Environmental Law and Jurisprudence', *YouTube* (online), 18 July 2017, Lccture given at NALSAR University of Law, available at: <https://www.youtube.com/watch?v=tot4x9f9c9w&index=6&list=PLzwRRj2rg8VO5VKYh70FyX6QJvV0ZFAQY&t=906s> (last accessed on 6 June 2018).

[945] Emulating Baxi's distinction with regard to human rights, such a politics for the environment is distinguishable from what we might call a 'politics *of* the environment', the conduct of which takes place merely within the existing parameters of dominant views toward the environment. Baxi (2008), pp. 40-41.

the hope of making more consciously-informed choices between a whole set of possible future orders. Consequently, this mode of story-telling has perhaps opened new interpretations of the past that might help those engaged in the task of crafting less unjust futures.

Ultimately, there are always new stories to uncover, environments to fashion, orders to be challenged, and suffering to alleviate. International law is not fixed. It has a history, which is capable of being retold in different ways. Our conceptual understanding of nature was made, and can therefore be changed. This thesis has nourished itself on the possibility of such reappraisals and reinterpretations. Its critique has reinforced the necessity of reviving a set of different approaches to not only the natural environment, but also to international law. It is, therefore, my fervent hope that this thesis—and the stories it enlivens—may afford some modest foundation for reinvigorating the discipline, and that this long-suppressed (emancipatory) soul of international law may again find renewed utterance.

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