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Intersections of Environmental Justice and Sustainable Development

Framing the Issues

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1.1 INTRODUCTION

Humanity stands at a critical juncture. It has entered a new geologic era called the "Anthropocene,"[1] in which unbridled economic activity threatens irreversible ecological harm. In the name of "development," human beings have caused massive ecosystem destruction and species extinction, disrupted the planet's climate, and generated vast amounts of toxic waste – exceeding the assimilative and regenerative capacity of nature.

Global statistics are sobering. The world has entered a sixth wave of mass extinction where, according to some estimates, 27,000 species vanish every year[2] and about one million species currently face extinction.[3] Climate change is accelerating more rapidly than scientists predicted, leading the World Meteorological Organization to warn that lack of aggressive mitigation measures will likely result in a catastrophic temperature increase of 3–5 degrees Celsius (5.4–9.0 degrees Fahrenheit) above preindustrial levels by 2100.[4] In 2016, the world generated 242 million tons of plastic waste.[5] If present trends continue, there will be more plastic in the oceans than fish by 2050.[6] Between 1945 and the present, the worldwide generation of hazardous

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[1] See P. J. Crutzen, "Geology of Mankind – The Anthropocene" (2002) 415 *Nature* 23; C. Gonzalez, "Global Justice in the Anthropocene," in L. Kotzé (ed.), *Environment Law and Governance for the Anthropocene* (Oxford: Hart, 2017); C. Jefferies, S. L. Seck, and T. Stephens, "International Law, Innovation, and Environmental Change in the Anthropocene," in N. Craik, C. Jefferies, S. L. Seck, and T. Stephens (eds.), *Global Environmental Change and Innovation in International Law* (Cambridge, UK: Cambridge University Press, 2018), pp. 1–18.

[2] See E. O. Wilson, "The Diversity of Life 280 (1992)," referred to in D. Hunter, J. Salzman, and D. Zaelke, *International Environmental Law and Policy* 5th ed. (Sunderland, UK: Foundation Press, 2015), p. 8.

[3] E. S. Brondizio, J. Settele, S. Díaz, and H. T. Ngo (eds.), "Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services" (IPBES secretariat, Bonn, Germany: IPBES, 2019), p. 12.

[4] "Global Temperatures on Track for 3–5 Degree Rise by 2100: U.N.," Nov. 29, 2018, www.reuters.com/article/us-climate-change-un/global-temperatures-on-track-for-3-5-degree-rise-by-2100-u-n-idUSKCN1NY186. See also, World Bank, "Series: Turn Down the Heat," www.worldbank.org/en/topic/climatechange/publication/turn-down-the-heat.

[5] The World Bank, "Global Waste to Grow by 70 Percent by 2050 Unless Urgent Action Is Taken: World Bank Report," Sept. 20, 2018, www.worldbank.org/en/news/press-release/2018/09/20/global-waste-to-grow-by-70-percent-by-2050-unless-urgent-action-is-taken-world-bank-report.

[6] R. Harrington, "By 2050, the Oceans Could Have More Plastic than Fish," Jan. 26, 2017, www.businessinsider.com/plastic-in-ocean-outweighs-fish-evidence-report-2017-1.

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waste increased from 5 million to 400 million tons *per year*.[7] Much of this waste is generated in affluent countries (the Global North) and is exported to poor and middle-income countries (the Global South) for disposal[8] – a practice that has been denounced as "toxic colonialism." From heavy metals in soils to the chemical contamination of air and water, the extraction of wealth from nature and the disposal of wastes has rendered some places on earth so toxic that they are not suitable for human habitation.[9] Every year, air pollution kills more than seven million people, while lack of access to fresh water and sanitation has been linked to the death of five million people per year.[10]

It is important to recognize that not every person or every state contributed equally to environmental destruction. Nor do all segments of society lead unsustainable lifestyles. Sadly, those who contributed the least to environmental degradation are disproportionately exposed to the resulting harm. In affluent and impoverished countries alike, it is the poor and vulnerable who pay the price for the consumption-driven lifestyles of national and global elites. This imbalance between those who benefit from economic activity and those who bear its adverse social and environmental impacts is one of the hallmarks of environmental injustice.

This volume seeks to examine the complex and multidimensional forms of oppression that produce environmental injustice at the national and international level and the legal frameworks and strategies that have been deployed to combat these injustices. The goal is to develop a more robust conception of environmental justice by engaging with the literature on sustainable development and human rights – particularly the often-neglected social pillar of sustainable development. As many of the case studies in this volume illustrate, environmental justice struggles overlap with struggles for other forms of justice. Despite these overlaps and intersections, the literature on environmental justice often treats them as single, isolated challenges without taking the larger context and underlying historical causes into consideration. As a result, the "solutions" that are adopted or proposed do not address the structural issues that give rise to intersecting forms of injustice, many of them dating back to the colonial era.[11] And the separation of environmental law from other bodies of law makes it impossible to address the root causes of many of these injustices in economic, trade, and investment law.[12]

This chapter proceeds as follows. Section 1.2 describes the evolution of the concept of sustainable development from the 1987 report of the World Commission on Environment and Development (WCED) to the Sustainable Development Goals (SDGs). It discusses contemporary degrowth and green growth movements, before introducing the relatively novel concept of just sustainabilities, a synthesis of environmental justice and sustainable development. Section 1.3 defines environmental justice and discusses its relationship to human rights and the social pillar of sustainable development, reflecting on which dimensions of environmental justice are well reflected in this book and which proved more difficult to address. Section 1.4 then provides an outline of the volume, and assesses limitations, challenges, and areas for further research.

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[7] The World Counts, "Hazardous Waste Statistics," www.theworldcounts.com/counters/waste_pollution_facts/ hazardous_waste_statistics.

[8] The disposal of hazardous waste can cost as much as US$2,000 per ton in developed country versus just US$40 per ton in Africa (Hunter et al., note 2, p. 11).

[9] For example, La Oroya in Peru, the site of a lead smelter, is regarded as one of the world's most polluted places. B. Walsh, "The World's Most Polluted Places: La Oroya, Peru," http://content.time.com/time/specials/2007/article/0,28804,1661031_1661028_1661020,00.html.

[10] See Hunter et al., note 2, p. 15.

[11] See Chapters 3 and 18 in this volume.

[12] See ibid., Chapters 5 and 29.

1.2 SUSTAINABLE DEVELOPMENT FROM BRUNDTLAND TO THE SDGS

Prior to the advent of sustainable development, the right to development was promoted by the Global South as a manifestation of their right to self-determination.[13] The right to development and sustainable development operated in parallel until the adoption of the SDGs in 2015.[14] Sustainable development has emerged as the overarching framework for environmental governance[15] and a potential alternative to the dominant economic development paradigm.[16] It has come a long way since it was first popularized by the 1987 report of the WCED, also known as the Brundtland Commission.[17]

Defined as "development that meets the needs of the present without compromising the ability of future generations to meet their needs,"[18] sustainable development initially required the balancing of two pillars – economic development and environmental protection.[19] The binary nature of sustainable development was modified at the 1995 World Summit for Social Development, which added a third pillar: social development.[20] As explained in the Summit's Declaration:

> [E]conomic development, social development and environmental protection are interdependent and mutually reinforcing components of sustainable development, which is the framework for our efforts to achieve a higher quality of life for all people. Equitable social development that recognizes empowering of the poor to utilize environmental resources sustainably is a necessary foundation for sustainable development. We also recognize that broad-based and sustained economic growth in the context of sustainable development is necessary to sustain social development and social justice.[21]

Influenced by the Copenhagen Declaration, the 2002 Johannesburg Declaration on Sustainable Development[22] affirmed "collective responsibility to advance and strengthen the interdependent and mutually reinforcing pillars of sustainable development – economic development, social development and environmental protection – at the local, national, regional and global levels."[23]

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[13] See K. Mickelson, "The Stockholm Conference and the Creation of the South–North Divide in International Environmental Law," in S. Alam, S. Atapattu, C. G. Gonzalez, and J. Razzaque (eds.), *International Environmental Law and the Global South* (Cambridge, UK: Cambridge University Press, 2015), p. 109.

[14] R. Gordon, "Unsustainable Development," in Alam et al., note 13, p. 50. See UN General Assembly, *Transforming Our World: The 2030 Agenda for Sustainable Development*, Oct. 21, 2015, UN Doc. A/RES/70/1.

[15] See Hunter et al., note 2, p. 114.

[16] See UN World Commission on Environment and Development, *Our Common Future, Report of the World Commission on Environment and Development* (Oxford: Oxford University Press, 1987).

[17] Ibid.

[18] Ibid., p. 43.

[19] Ibid.

[20] UN, *Report of the World Summit for Social Development, Copenhagen*, Mar. 6–12, 1995, UN Doc. A/CONF.166/9 [Copenhagen Declaration].

[21] Ibid.

[22] UN World Summit on Sustainable Development, *Johannesburg Declaration on Sustainable Development*, Sept. 4, 2002, UN Doc. A/CONF.199/20.

[23] Ibid., para. 5. While the Copenhagen Declaration added the social pillar to sustainable development, Agenda 21 adopted at the 1992 United Nations Conference on Environment and Development (UNCED) recognized the importance of social development. It recognized the need to combat poverty, address consumption patterns, and protect health, as well as promoting sustainable human settlements as coming within the social

Thus, sustainable development now comprises three pillars and requires the balancing of all three. But what does social development mean? This third pillar remains under-theorized,[24] but seems to encompass basic human needs such as access to food, water, healthcare, shelter, and education.[25] The social pillar intersects with human rights because many of these basic needs are expressed in rights language.[26]

The commitments made by states in the Copenhagen Declaration elucidate the meaning of the social pillar. These commitments include: creating an economic, political, social, cultural, and legal environment that will enable people to achieve social development; eradicating poverty; promoting the goal of full employment to enable men and women to attain sustainable livelihoods; promoting social integration by fostering societies that are stable, safe, and just, based on the promotion and protection of all human rights and nondiscrimination; promoting full respect for human dignity to achieve equality and equity between men and women; and promoting and attaining the goals of universal and equitable access to quality education and the highest attainable standard of physical and mental health.

Sustainable development is said to embrace the "triple bottom line approach to human wellbeing."[27] It aims for a combination of economic development, environmental sustainability, and social inclusion. Social inclusion includes principles such as nondiscrimination, gender equality, and participation. While states have the "sovereign right to exploit their own resources pursuant to their own environmental and developmental policies,"[28] this right is neither absolute nor limitless and "cannot lawfully be exercised without regard for the detrimental impact on human rights or the environment."[29]

If sustainable development resembles a three-legged stool, giving equal weight to each leg (environmental protection, economic development, and social development) is necessary to ensure that the stool (sustainable development) is stable. However, this depiction of sustainable development has been criticized for placing humanity *outside* the environment and failing to encourage us to recognize our place within the biosphere:[30]

> [I]t perpetuates an even older myth that the environment is something apart from humanity, humanity's economy, and its social well-being. We do not discuss whether sustainable development itself is an oxymoronic concept. We do assume that sustainable development represents a real change in the way humans choose to live so that the viability and subsistence of all living species and their places are ensured.[31]

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and economic dimensions of sustainable development. UN Sustainable Development, "United Nations Conference on Environment and Development: Agenda 21, June 3–14, 1992.

[24] C. G. Gonzalez, "Environmental Justice, Human Rights and the Global South" (2015) 13 *Santa Clara Journal of International Law* 151.

[25] See Copenhagen Declaration, note 20.

[26] See J. Knox, "Human Rights, Environmental Protection and Sustainable Development Goals" (2015) 24 *Washington International Law Journal* 517 at 518 who argues that while (draft) SDGs set out many worthwhile goals, "the targets often do not contain language that is concrete and focused enough to effectively promote human rights or environmental protection."

[27] See J. Sachs, "From Millennium Development Goals to Sustainable Development Goals" (2012) 379 *Viewpoint* 2206–2211 at 2206.

[28] UN General Assembly, *Rio Declaration on Environment and Development*, Aug. 12, 1992, UN Doc. A/CONF.151/26 (Vol. I), Principle 2.

[29] See P. Birnie, A. Boyle, and C. Redgwell, *International Law and the Environment* 3rd ed. (Oxford: Oxford University Press,2009), p. 115.

[30] See N. Dawe and K. Ryan, "The Faulty Three-Legged-Stool Model of Sustainable Development" (2003) 17 *Conservation Biology* 1458.

[31] Ibid.

In other words, "the environment is not and cannot be a leg of the sustainable development stool. It is the *floor* upon which the stool, or any sustainable development model, must stand."[32] Because humanity and the economy cannot survive without the ecosystem services provided by nature,[33] environmental protection must be the foundation of all development activities. Critics question whether we will ever understand our place on the planet and choose to live within the limits set by the biosphere. Perhaps we can do it, but not by relying on the three-legged stool model "because it continues to place us outside those limits. And while we may be able to think outside the limits, we cannot live outside the limits."[34]

In short, one of the most significant critiques of sustainable development is that it fosters the illusion of unlimited economic growth on a finite planet.[35] Critics point out that the concept of sustainable development has been deployed by global elites to continue to subordinate nature to the imperatives of economic growth, while ignoring ecological limits and planetary boundaries.[36] An economic model based on perpetual economic growth and unbridled extraction of wealth from nature is ill-suited for the achievement of sustainable development. Relying on the same system that created the problem to fix the problem is shortsighted, to say the least. The case studies in this volume illustrate how states continue to give primacy to economic development over environmental protection and social development – to the detriment of species, ecosystems, and vulnerable human beings.

In many respects, sustainable development came of age with the adoption of the 2030 Agenda for Sustainable Development, with its seventeen SDGs and 169 targets.[37] The SDGs build on the Millennium Development Goals (MDGs) and seek to complete what the MDGs failed to achieve. However, the SDGs go much further. Never before have world leaders pledged common action across such a broad and universal policy agenda based on economic, social, and environmental targets within a human rights framework. The SDGs seek to realize human rights for all and to achieve gender equality and the empowerment of all women and girls. They are integrated and indivisible and balance the three dimensions of sustainable development: economic, social, and environmental. Agenda 2030 further recognized that each country faces specific challenges in its pursuit of sustainable development and that vulnerable people must be protected, including children, youth, persons with disabilities, people living with HIV/AIDS, older persons, Indigenous peoples, refugees, and internally displaced persons, and migrants.

Unlike the MDGs, the 2030 agenda and the SDGs are explicitly based on human rights:

> We envisage a world of universal respect for human rights and human dignity, the rule of law, justice, equality and non-discrimination; of respect for race, ethnicity and cultural diversity; and of equal opportunity permitting the full realization of human potential and contributing to shared prosperity. A world which invests in its children and in which every child grows up free from violence and exploitation. A world in which every woman and girl enjoys full gender equality and all legal, social and economic barriers to their empowerment have been removed. A just, equitable, tolerant, open and socially inclusive world in which the needs of the most vulnerable are met.[38]

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[32] Ibid. p. 1459.

[33] See Hunter et al., note 2.

[34] See Dawe and Ryan, note 30.

[35] See Gordon, note 14, pp. 50, 63–64; W. Haydn, *Demystifying Sustainability: Towards Real Solutions* (London: Earthscan, 2015), p. 36.

[36] M. Redclift and G. Woodgate, "Sustainable Development and Nature: The Social and the Material" 21 *Sustainable Development* 92–100 at 92.

[37] This section draws from S. Atapattu, "From 'Our Common Future' to Sustainable Development Goals: Evolution of Sustainable Development under International Law" (2019) 36 *Wisconsin International Law Journal* 215.

[38] UN General Assembly, note 14.

It remains to be seen how much progress the international community will make toward achieving the SDGs by 2030. Although reducing poverty and improving the living standards of people has been on the global agenda since the creation of the UN, over one billion people continue to live in poverty.[39] The problem is not the failure to generate wealth, but the uneven distribution of this wealth, including its concentration in fewer and fewer hands.[40] In addition, the SDGs continue to envisage economic growth as the primary engine of poverty reduction. Goal 8, for example, seeks to increase gross domestic product (GDP) growth in the least developed countries along with higher levels of economic productivity in all countries.[41] By failing to acknowledge the need to reduce economic growth in affluent countries in order to improve living standards in poor countries without exceeding ecological limits, the SDGs "fail to reconcile the contradiction between growth and sustainability at the core of sustainable development."[42]

Because the current capitalist economic model, with its emphasis on unlimited growth, is the main cause of the current environmental crisis, scholars, activists, and grassroots environmental justice movements have begun advocating for "degrowth."[43] The idea of degrowth is emerging as a response to the triple crisis – environmental, social, and economic – we are facing. Degrowth is slowing down economic growth based on the narrow economic measure of GDP growth,[44] which, as the feminist movement pointed out, does not value what is not in the market, such as unpaid domestic work and voluntary work.[45] It questions the way of life linked to growth and asks what makes people really prosperous?[46] The production of goods and services and improving standards of living is the focus of the current economic model. However, "the ecological crisis tells us that this story of social progress through economic growth is highly questionable."[47] Sustainable degrowth is defined as: "[a]n equitable down-scaling of production and consumption that increases human well-being and enhances ecological conditions at the local and global level."[48] Proponents of sustainable degrowth do not propose degrowth across the board; they recognize that certain social and small-scale economic activities and impoverished

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[39] See FINCA, "World Poverty Facts," https://finca.org/campaign/world-poverty/?gclid=CjwKCAiA5 8fvBRAzEiwAQW-hzeffdCSfYqP7dqmdBtUEqVTn_ajwIyTEK5cbbMVsmPmmwo-Hx5kiuBoCa7wQAvD_ BwE. However, according to the World Bank, "in 2015, 10 percent of the world's population lived on less than $1.90 a day, down from nearly 36 percent in 1990. Progress has been uneven, and the number of people in extreme poverty remains unacceptably high. Given growth forecasts, the world is not on track to end extreme poverty by 2030" ("Poverty at a Glance," www.worldbank.org/en/topic/poverty).

[40] According to Oxfam, twenty-six billionaires currently control as much wealth as the poorest half of the world's population. Oxfam, "Public Good or Private Wealth?" Jan. 2019, p. 12.

[41] See Target 8.1, https://sustainabledevelopment.un.org/sdg8#targets.

[42] S. Adelman, "The Sustainable Development Goals, Anthropocentrism and Neoliberalism," in D. French and L. Kotzé (eds.), Global Goals: Law, Theory & Implementation (Cheltenham, UK: Edward Elgar, 2018), p. 34.

[43] F. Demaria, G. Kallis, and K. Bakker, "Geographies of Degrowth: Nowtopias, Resurgences and the Decolonization of Imaginaries and Places" (2019) 2 ENE: Nature and Space 431; B. Akbulut, F. Demaria, J. F. Gerber, and J. Martinez-Alier, "Who Promotes Sustainability? Five Theses on the Relationships between the Degrowth and Environmental Justice Movements" (2019) 165 Ecological Economics 106418.

[44] J. Martinez-Alier, "Environmental Justice and Economic Degrowth: An Alliance between Two Movements, Capitalism, Nature, Socialism" (2012) 23 Capitalism Nature Socialism 51.

[45] F. Schneider, G. Kallis, and J. Martinez-Alier, "Crisis or Opportunity? Economic Degrowth for Social Equity and Ecological Sustainability" (2010) 18 Journal of Cleaner Production 511.

[46] See C. Bauhardt, "Solutions to the Crisis? The Green New Deal. Degrowth, and the Solidarity Economy: Alternatives to the Capitalist Growth Economy from an Ecofeminist Economics Perspective" (2014) 102 Ecological Economics 60.

[47] Ibid.

[48] See Schneider et al., note 45, p. 512

groups or regions may still need to grow. However, growth that externalizes its costs elsewhere is not sustainable.[49]

While there is an urgent need to reduce the overall consumption of resources, it is no secret that most of this consumption takes place in the Global North, while much of the world's population remains mired in poverty. As the Degrowth Declaration of 2008 recognized: "By using more than their legitimate share of global environmental resources, the wealthiest nations are effectively reducing the environmental space available to poorer nations, and imposing adverse environmental impacts on them."[50] The Declaration also recognized that global economic growth has not succeeded in reducing poverty, that "unequal exchange in trade and financial markets" has increased inequality between countries,[51] and that we need to bring economic activity in line with the capacity of our ecosystems and to redistribute wealth and income globally.[52] The Declaration defines degrowth as "a voluntary transition towards a just, participatory and ecologically sustainable society."[53] Degrowth must occur in wealthy parts of the world through a transformation of the global economic system. The objectives of degrowth are "to meet basic human needs and ensure a high quality of life, while reducing the ecological impact of the global economy to a sustainable level, equitably distributed between nations."[54]

Thus, the objectives of sustainable development and degrowth are similar. Degrowth, with its emphasis on reducing consumption in affluent countries, advocates for an alternative economic model that respects planetary boundaries.[55] Sustainable development has a similar objective at least in theory, even though it has failed to explicitly call for degrowth.

A second approach to the interlocking economic and ecological crises is the concept of the "green economy" or "green growth," often used interchangeably. This approach ranges from a narrow emphasis on eco-industry and environmentally friendly production to a redefinition of a country's entire economy.[56] Between these two extremes are policies that promote low-carbon economies with dematerialization, decoupling of resource use and environmental impacts from economic growth, valuing ecosystem services, or simply increasing energy efficiency.[57] United Nations Environment Programme (UNEP) has been a great proponent of the green economy as "an engine for growth," generating jobs and eradicating poverty. It defines green economy as "one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities."[58] According to UNEP:

> In its simplest expression, a green economy can be thought of as one which is low carbon, resource efficient and socially inclusive. In a green economy, growth in income and employment should be driven by public and private investments that reduce carbon emissions and pollution, enhance

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49 Ibid.
50 Research and Degrowth, "Degrowth Declaration of the Paris 2008 Conference" (2010) 18 *Journal of Cleaner Production* 523, s. 7. The Declaration was adopted at the Economic Degrowth for Ecological Sustainability and Social Equity Conference in Paris in April 2008.
51 Ibid., s. 3.
52 Ibid.
53 Ibid.
54 Ibid.
55 See J. C. J. M. van den Bergh and G. Kallis, "Growth, A-Growth or Degrowth to Stay within Planetary Boundaries?" (2012) 46 *Journal of Economic Issues* 909–920; J. Martinez-Alier, "Environmental Justice and Economic Degrowth: An Alliance between Two Movements" (2012) 23 *Capitalism Nature Socialism* 51.
56 O. Bina, "The Green Economy and Sustainable Development: An Uneasy Balance?" (2013) 31 *Environment and Planning C: Government and Policy* 1023 at 1024.
57 Ibid.
58 UN Environment Programme (UNEP), "Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication. A Synthesis for Policy Makers," 2011, p. 2; Bina, note 56.

energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services. These investments need to be catalysed and supported by targeted public expenditure, policy reforms and regulation changes. The development path should maintain, enhance and, where necessary, rebuild natural capital as a critical economic asset and as a source of public benefits, especially for poor people whose livelihoods and security depend on nature.[59]

The UNEP report points out that the green economy does not replace sustainable development but creates an enabling framework for its realization. "Decades of creating new wealth through a 'brown economy' model have not substantially addressed social marginalization and resource depletion."[60] In order to transition to a green economy, specific enabling conditions will be required but these conditions are currently heavily weighted toward the prevailing brown economy, which depends excessively on fossil fuel energy. The report seeks to debunk certain myths surrounding the green economy, the most widespread being that there is a trade-off between environmental sustainability and economic progress. UNEP insists that the "greening" of economies neither inhibits wealth creation nor employment opportunities.[61]

However, the notion of a green economy appears to pour old wine into new bottles, essentially preserving the status quo with a few minor tweaks. Indeed, since the green economy was floated as "an alternative" to the existing economic development model (brown economy as the UNEP report calls it) at Rio+20 conference in 2012, nothing much seems to have changed. In fact, as the UNEP's own "Emissions Gap" report shows, greenhouse gas emissions have increased to a historic high level,[62] and global dependence on fossil fuels has not declined.

The SDGs do not endorse the green economy or green growth. On the contrary, while SDG 12 refers to the need to ensure sustainable consumption and production patterns, SDG 8 continues to use GDP as a measure of economic success.[63] Rather than degrowth, SDG 8 promotes the need to *increase* the rate of economic growth:

> Inclusive and sustainable economic growth can drive progress and generate the means to implement the Sustainable Development Goals. Globally, labour productivity has increased and unemployment is back to pre-financial crisis levels. However, the global economy is growing at a slower rate. More progress is needed to increase employment opportunities, particularly for young people, reduce informal employment and the gender pay gap and promote safe and secure working environments to create decent work for all.[64]

In sum, while sustainable development might accommodate both degrowth and the green economy, degrowth is more likely to achieve sustainable development by slowing down the global economy and reducing consumption in affluent countries in order to give poor countries the ecological space to improve living standards. Regrettably, the SDGs preserve the status quo by calling for an increase in economic growth and merely labeling it "sustainable economic growth." Unless we recognize that the current environmental crisis is due to an economic system premised on the unbridled extraction of wealth from nature and the exploitation and dispossession of human beings, we will only be tinkering at the margins without seeing any positive results. Real change requires recognizing that the environment is the floor on which both society and the economy rest.

[59] UNEP, note 58, p. 2.
[60] Ibid.
[61] Ibid.
[62] UN Environment Programme, "Emissions Gap Report 2019, Executive Summary," 2019.
[63] Target 8.1, note 41.
[64] "Progress of Goal 8 for 2019," https://sustainabledevelopment.un.org/sdg8.

This volume seeks to fill a significant gap in the scholarly literature by examining the relationship between environmental justice and sustainable development, particularly its social pillar. One of the few frameworks that does attempt to address this relationship is the "just sustainabilities" framework proposed by Agyeman *et al*. The authors define "just sustainabilities" as "the need to ensure a better quality of life for all, now, and into the future, in a just and equitable manner, while living within the limits of supporting ecosystems."[65] This framing encompasses fairness, equity including inter and intragenerational equity, precaution, environmental sustainability, and social justice. The authors acknowledge that:

> In recent years it has become increasingly apparent that the issue of environmental quality is inextricably linked to that of human equality. Wherever in the world environmental despoliation and degradation is happening, it is almost always linked to questions of social justice, equity, rights and people's quality of life in its widest sense.[66]

The authors make three interrelated arguments in support of their framework. First, they point out that countries with more equal distributions of income, better rights, and higher literacy rates tend to have higher environmental quality than those who do not.[67] Second, they note that environmental problems tend to affect the poor disproportionately, even though the poor are not the major polluters. While the rich are better able to insulate themselves from the negative impacts of pollution and other environmental degradation, poor people lack the resources to do so.[68] Finally, they emphasize that sustainability "cannot be simply an 'environmental' concern, important though 'environmental' sustainability is. A truly sustainable society is one where wider questions of social needs and welfare, and economic opportunity, are integrally connected to environmental concerns."[69]

The "just sustainabilities" framework is a useful reminder that sustainability and environmental justice are inextricably intertwined. Sustainability cannot be achieved without considering social justice, economic opportunity, and environmental protection. But just what is environmental justice?

1.3 ENVIRONMENTAL JUSTICE

Environmental justice has become the rallying cry of subordinated communities throughout the world who are disproportionately burdened by environmental degradation. While social justice struggles with an environmental dimension can be found throughout history, the discourse of environmental justice emerged in the United States in the 1980s, as poor people and racial and ethnic minorities mobilized to combat the siting of polluting facilities and hazardous waste disposal sites in their communities.[70] In recent decades, vulnerable communities in both affluent and poor countries and even vulnerable states, such as the small island states, have embraced the discourse of environmental justice.[71]

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[65] See J. Agyeman, R. D. Bullard, and B. Evans, (eds.), *Just Sustainabilities: Development in an Unequal World* (Boston, MA: MIT Press, 2003), p. 7 who believe that "one explanation for the success of the environmental justice movement can be seen in the mutual benefits of a coalition between environmental and social concerns."

[66] Ibid., p. 1.

[67] Ibid.

[68] Ibid.

[69] Ibid., p. 2.

[70] C. G. Gonzalez, "Environmental Racism, American Exceptionalism, and Cold War Human Rights" (2017) 26 *Transnational Law and Contemporary Problems* 281 at 282–283.

[71] L. Temper, D. del Bene, and J. Martinez-Alier, "Mapping the Frontiers and Front Lines of Global Environmental Justice: The EJAtlas" (2015) 22 *Journal of Political Ecology* 255–278.

The language of environmental justice is morally compelling and has given a voice to marginalized communities. However, much of the literature on environmental justice has failed to develop a rigorous analysis of the complex ways that poverty, race, gender, indigeneity, age, and disability, among other identity characteristics, many of which are subject to protection under international human rights law, intersect to produce environmental injustice in specific contexts. In other words, the social pillar of sustainable development and its relationship to environmental justice is under-theorized.

Environmental justice scholars and activists have attempted to address this shortcoming by articulating a four-part definition of environmental justice consisting of distributive justice, procedural justice, corrective justice, and social justice.[72] Distributive justice requires the fair allocation of the benefits and burdens of economic activity among and within nations.[73] Procedural justice calls for transparent, informed, and inclusive environmental decision-making processes.[74] Corrective justice requires governments to enforce environmental laws, compensate those whose rights are violated, and terminate the harm-producing conduct.[75] Social justice emphasizes that environmental struggles are inextricably intertwined with struggles for social and economic justice.[76] In other words, environmental injustice cannot be separated from economic exploitation, race and gender subordination, the marginalization of children, the elderly, immigrants, and persons with disabilities, the ongoing dispossession of Indigenous peoples, and the colonial and postcolonial domination of the Global South. As the case studies in this volume illustrate, environmental conflicts frequently involve multiple dimensions of environmental justice, and do not fit neatly into one of the four categories. Yet, it cannot be said that the case studies in this volume grapple with the full intersectional dimensions of environmental justice; rather, different dimensions are explored in different chapters, with some dimensions untouched, perhaps most notably disability.

The chapters in this volume expand upon the four-fold definition of environmental justice. For example, several of the chapters address the failure of Western law and policy to recognize and respect the lived experiences and world views of subaltern communities, particularly Indigenous peoples[77] – a phenomenon known as epistemic injustice. Coined by philosopher Miranda Fricker,[78] the concept of epistemic injustice has been used by prominent legal scholars, such as Rebecca Tsosie, to explain the harms caused by "the uncritical application of Western values, categories, and standards to the very different social experience" of Indigenous peoples.[79] The chapters in this volume shed light on the concept of epistemic

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72 See R. R. Kuehn, "A Taxonomy of Environmental Justice" (2000) 30 *Environmental Law Reporter* 10681; C. G. Gonzalez, "Environmental Justice and International Law," in S. Alam, J. H. Bhuiyan, T. M. R. Chowdury, and E. J. Techera (eds.), *Routledge Handbook of International Environmental Law* (Abingdon, UK: Routledge, 2013), p. 77 (applying this definition to environmental conflicts between affluent and poor countries).

73 See D. French, "Sustainable Development and the Instinctive Imperative of Justice in the Global Order," in D. French (ed.), *Global Justice and Sustainable Development* (Leiden: Martinus Nijhoff, 2010), p. 8.

74 See Kuehn, note 72, p. 10688.

75 Ibid., pp. 10693–10698; M. Burkett, "Climate Reparations"(2009) 10 *Melbourne Journal of International Law* 513 at 522–523.

76 See C. G. Gonzalez, "An Environmental Justice Critique of Comparative Advantage: Indigenous Peoples, Trade Policy, and the Mexican Neoliberal Economic Reforms" (2011) 32 *University of Pennsylvania Journal of International Law* 728; R. Guha, *Environmentalism: A Global History* (New York: Longman, 2000), p. 105.

77 See for example Chapters 4, 14, and 23 in this volume.

78 M. Fricker, *Epistemic Injustice: Power and the Ethics of Knowing* (Oxford: Oxford University Press, 2007).

79 R. Tsosie, "Indigenous Peoples and Epistemic Injustice: Science, Ethics and Human Rights" (2012) 87 *Washington Law Review* 1133 at 1201; B. de Sousa Santos, *Epistemologies of the South: Justice against Epistemicide* (Boulder, CO: Paradigm, 2014).

injustice by explaining the differences between Indigenous and Western knowledge, the ways in which Indigenous communities have been harmed by the subordination of their world views, and the importance of Indigenous epistemologies and cosmologies not only to Indigenous self-determination, but also to the achievement by all communities of environmental justice and sustainable development. In Latin America and Canada, for example, Indigenous cosmovisions have served as the foundation for alternatives to Eurocentric notions of development. Known as *buen vivir* or living well,[80] these alternative approaches deny the human–nature binary, reject the Western obsession with economic growth, and adopt a communitarian and participatory vision of environmental justice.[81]

The chapters in this volume also expand our understanding of environmental racism.[82] Developed by the environmental justice movement in the United States, the term environmental racism refers to the disproportionate concentration of environmental hazards in racial and ethnic minority communities.[83] Who is racialized and how they are racialized is socially constructed, rather than phenotypically predetermined, and varies substantially from country to country and over time in relation to changing economic and political circumstances.[84] In the United States, for example, African Americans, Latinos, and Indigenous communities have long been racialized and subjected to inequitable environmental burdens.[85] Conversely, Jews and the Irish, who are currently usually classified as White, have a long history in Europe and the United States of being regarded as non-White.[86]

Racialization is a global phenomenon embedded in the life cycle of fossil fuel–based capitalism. The extraction of wealth from nature was implemented through the dispossession and conquest of Indigenous peoples, through slavery, through the "slow violence" inflicted by the fossil fuel industry on marginalized communities, through the bloody resource wars instigated by the Global North in the Middle East, and through the colonial and postcolonial domination by White Euro-American elites of large segments of the world's population.[87] These practices targeted populations constructed as non-White and were justified through a variety of legal doctrines, including *terra nullius*, the doctrine of discovery, the mandate system after World War I, and the trusteeship system after World War II. These doctrines depicted racialized peoples as so primitive and in need of "modernization and development" that their livelihoods and world views were not worthy of protection.[88] Ironically, those most susceptible to climate

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[80] See Chapters 4, 11, and 12 in this volume.

[81] A. Acosta, "El Buen (con) Vivir, una utopía por (re)construir: Alcances de la Constitución de Montecristi" Otra Economía: Revista Latinoamericana de economía social y solidaria" (2010) 4 *Otra Economía* 8–31; A. Acosta and E. Gudynas, "La renovación de la crítica al Desarrollo y el buen vivir como alternativa" (2011) 16 *Utopía y Praxis Latinoamericana* 71–83; E. Gudynas, "Buen Vivir: Today's Tomorrow" 54 *Development* 441.

[82] See Chapters 5 and 8 in this volume.

[83] Gonzalez, note 70, pp. 282–283. Environmental racism was invoked by the petitioners in the *Mossville* case filed before the Inter-American Commission of Human Rights and the complaint filed before the UN Committee against Racial Discrimination. This is the first time that environmental justice groups used environmental racism in a human rights complaint against the USA. See Report No 43/10, Petition 242-05, Admissibility, *Mossville Environmental Action Now* v. *USA*, Mar. 17, 2010. See also www.enrichproject.org/about/background.

[84] A. Reed. Jr., "Marx, Race, and Neoliberalism" (2013) 22 *New Labor Forum* 49 at 50.

[85] See Chapter 8 in this volume.

[86] See generally N. Ignatiev, *How the Irish Became White* (New York: Routledge, 1995); K. Brodkin, *How Jews Became White Folks and What that Says about Race in America* (New Brunswick, NJ: Rutgers University Press, 1998).

[87] See Chapter 5 in this volume.

[88] See A. Anghie, *Imperialism, Sovereignty and the Making of International Law* (Cambridge, UK: Cambridge University Press, 2014).

change-related displacement (and to detention, criminalization, and deportation if they attempt to migrate to the Global North) are also overwhelmingly persons classified as non-White.[89] A race-conscious analysis of the capitalist world economy highlights the intersection of environmental justice struggles with other social movements, including movements for Indigenous rights, economic justice, immigrant rights, peace, reparations for slavery and colonialism, and for the restructuring of international economic laws and institutions that facilitate the plunder of nature and the impoverishment of the Global South.[90]

Other intersecting forms of oppression are also crucial to consider,[91] and yet are often not fully explored by environmental justice scholars. For example, several contributions to this volume consider the gender dimensions of environmental justice in detail,[92] while others merely touch upon it in passing,[93] or not at all. Gender, like race, is socially constructed, and gender roles are therefore historically contingent. As noted in the Gender Guidance of the United Nations Working Group on Business and Human Rights:

> The term "gender" refers to socially constructed roles of and power relations among men, women and gender non-binary persons, all of whom may be affected differently by business activities. However, considering that women have historically been discriminated against owing to patriarchal norms and power structures, the guidance in the report focuses only on women, although the gender framework proposed herein could be used in relation to any group of rights holders.[94]

Similarly, yet more expansively, the understanding of gender embraced by Canada's National Inquiry into Missing and Murdered Indigenous Women and Girls is an inclusive one that goes well beyond the biological binary of women and men, encompassing all identities and diverse sexualities, including, *inter alia*, gay, lesbian, bisexual, transgender, queer, and Two-Spirit, among other ways in which people self-identify.[95] While several chapters in the book address injustices involving violations of the human rights of women and girls, our contributors generally do not explicitly explore gender-based environmental injustices in this more fulsome manner.

Vulnerable communities do frequently frame their demands for environmental justice in the language of human rights, even though most human rights treaties do not contain explicit

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[89] See Chapter 5 in this volume.

[90] Ibid.

[91] On intersectionality, see K. Crenshaw, "Demarginalizing the Intersections of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory, and Antiracist Politics" (1989) *University of Chicago Legal Forum* 139–167.

[92] See Chapters 14, 21, and 24 in this volume.

[93] See ibid., Chapters 25 and 27.

[94] UN General Assembly, *Gender Dimensions of the Guiding Principles on Business and Human Rights*, May 23, 2019, UN Doc. A/HRC/41/43, para. 9 regarding scope and limitations. The report contains gender guidance for states and business enterprises in relation to all three pillars of the UN Guiding Principles on Business and Human Rights. The paragraph continues: "The guidance should be read together with other relevant standards, such as the standards of conduct for business, published by the Office of the United Nations High Commissioner for Human Rights, aimed at tackling discrimination against lesbian, gay, bisexual, transgender and intersex persons, and the Children's Rights and Business Principles."

[95] See National Inquiry into Missing and Murdered Indigenous Women and Girls, "Reclaiming Power and Place: The Final Report of the National Inquiry into Missing and Murdered Indigenous Women and Girls: Volume 1a," 2019, p. 58 [MMIWG Final Report] where the National Inquiry interpreted its mandate widely "to include 2SLGBTQQIA people (people who are Two-Spirit, lesbian, gay, bisexual, transgender, queer, questioning, intersex, and asexual). This is particularly important for people who don't fit the gender binary of 'male' or 'female,' since their gender isn't reflected in a simple statement of 'Indigenous women and girls' . . . and as an explicit reminder that gender-diverse people's needs must equally be taken into account."

environmental provisions. National and international tribunals have concluded that environmental degradation violates existing human rights, including the rights to life, health, food, and water; the procedural rights to information, participation, and access to justice; the collective rights of Indigenous peoples to their ancestral lands and resources; and the right to a healthy environment, which is recognized in a large number of national constitutions as well as legislative provisions.[96]

State obligations to protect, respect, and fulfil environmental human rights are often thought to be essential to achieving environmental and climate justice. For example, the 2018 Framework Principles on Human Rights and the Environment,[97] developed by the former Special Rapporteur on Human Rights and the Environment, note in Principles 1 and 2 that "States should ensure a safe, clean, healthy and sustainable environment in order to respect, protect, and fulfil human rights" while at the same time "States should respect, protect and fulfil human rights in order to ensure a safe, clean, healthy and sustainable environment." The concept of a sustainable environment must also include a sustainable earth system, although it is rare for international legal instruments to state this with clarity.

Nondiscrimination is a cross-cutting theme in the 2018 Framework Principles, with Principle 3 calling upon states to "prohibit discrimination and ensure equal and effective protection against discrimination in relation to the enjoyment of a safe, clean, healthy, and sustainable environment." Meanwhile, Principle 14 elaborates upon the need for states to take "additional measures to protect the rights of those who are most vulnerable to, or at particular risk from, environmental harm, taking into account their needs, risks, and capabilities." The commentary points out that vulnerability may arise due to the unusual susceptibility of some to environmental harm, or due to a denial of human rights, or both.[98] Those who are at increased risk from environmental harm "often include women, children, persons living in poverty, members of indigenous peoples and traditional communities, older persons, persons with disabilities, ethnic, racial or other minorities and displaced persons."[99]

While women are among those identified as often vulnerable due to both susceptibility to environmental harm and denial of human rights, a full analysis of women's rights violations will require attention to social and cultural dimensions. For example, not all women have the same relationship with land and water as the many Indigenous women who self-identify as water keepers or land protectors.[100] As a result, a women's empowerment and equality response that

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[96] See D. R. Boyd, *The Environmental Rights Revolution: A Global Study of Constitutions, Human Rights, and the Environment* (Vancouver: UBC Press, 2012); L. Kotzé, *Global Environmental Constitutionalism in the Anthropocene* (Oxford: Oxford University Press, 2016); J. R. May and E. Daly, *Global Environmental Constitutionalism* (Cambridge, UK: Cambridge University Press, 2016); S. Atapattu and A. Schapper, *Human Rights and the Environment: Key Issues* (Abingdon, UK: Routledge, 2019), ch. 7; J. C. Gellers, *The Global Emergence of Constitutional Environmental Rights* (Abingdon, UK: Routledge, 2017).

[97] UN General Assembly, *Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment*, Jan. 24, 2018, UN Doc. A/HRC/37/59. Arguably this framework applies also to business responsibilities to respect and support environmental human rights. See S. L. Seck, "Transnational Labour Law and the Environment: Beyond the Bounded Autonomous Worker" (2018) 33 *Canadian Journal of Law and Society* 137–157; S. L. Seck, "Indigenous Rights, Environmental Rights, or Stakeholder Engagement? Comparing IFC and OECD Approaches to the Implementation of the Business Responsibility to Respect Human Rights" (2016) 12 *McGill Journal of Sustainable Development Law* 48–91.

[98] UNGA, note 97, para. 40.

[99] Ibid., para. 41.

[100] S. Morales, "Digging for Rights: How Can International Human Rights Law Better Protect Indigenous Women from Extractive Industries?" (2019) 31 *Canadian Journal of Women and the Law* 58; S. L. Seck, "Relational Law: Re-imagining Tools for Environmental and Climate Justice" (2019) 31 *Canadian Journal of*

advocates increasing female representation in upper management of mining companies, for example, may not fully respond to the gender blindness of the mining industry if none of those women are Indigenous.[101] Similarly, if the call for women's equality and empowerment, in keeping with SDG 5, is linked exclusively to ensuring access to education in science and technology disciplines, without embedding equal respect for local and Indigenous knowledge often held by Indigenous women, then the vital importance of two-eyed seeing for environmental and climate justice will be missed.[102] The importance of education on environmental matters is noted in Framework Principle 6, as without the capacity to understand environmental risks, the public is not able to fully exercise their rights to express their views and participate effectively in environmental decision-making. Yet, whose knowledge is valued in decision-making matters as well.

The Framework Principles highlight other vulnerable groups who should be considered as part of an intersectional analysis, including children (the girl child), older people (grandmothers), those with disabilities, those living in poverty, and those who experience discrimination on the basis of race, ethnic, or other minority status, as well as those subject to environmental or climate-induced displacement. Principle 15 separately addresses the importance of compliance with obligations "to indigenous communities and members of traditional communities'" in many ways, including through respect and protection of their rights to traditional lands, territories and resources, consulting them to obtain their free, prior, and informed consent, and respecting and protecting traditional knowledge and practices in conservation and sustainable use. This principle and commentary are silent on gender, although the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) is not,[103] yet it is important to consider the gender dimensions of its implementation more deeply. Many Indigenous feminist scholars have noted the vital importance of not placing Indigenous women in the position of being seen to undermine their own community's self-determination and self-governance by seeking protection from the state (or a company) against their community.[104] A nuanced response is therefore required, and one that does not position the state (or company) as the savior of women against the uncivilized "other" that underlies international law's colonial history.[105] In some cases patriarchal norms have infiltrated local community governance as a result of colonial histories. Challenges to these social norms must come from within and are best supported – but not necessarily mandated – from outside. Similarly, women who take on the responsibility of serving as environmental human rights defenders may face challenges both from within and outside

    Women and the Law 151–177 (citing writings by Deborah McGregor, Janice Makokis, and Isabel Altamirano-Jiménez). See generally S. L. Seck and P. Simons, "Resource Extraction and the Human Rights of Women and Girls: Introduction to Special Issue" (2019) 31 *Canadian Journal of Women and the Law*, special issue edited by S. L. Seck and P. Simons, pp. i–vii.

[101] See K. MacMaster and S. L. Seck, "Mining for Equality: Soft Targets and Hard Floors for Boards of Directors," in O. Fitzgerald (ed.), *The Corporation in International, Transnational, and Domestic Law and Governance – Canadian Perspectives on Globalized Rule of Law* (Centre for International Governance Innovation, forthcoming).

[102] On the importance of two-eyed seeing, see MMIWG Final Report, note 95, pp. 132–133. According to L'nu Mi'kmaq scholar Tuma Young, the concept of two-eyed seeing is very important: "An issue has to be looked at from two different perspectives: the Western perspective and the Indigenous perspective, so that this provides the whole picture for whoever is trying to understand the particular issue" (ibid., p. 132).

[103] UN, Declaration on the Rights of Indigenous Peoples, Sept. 13, 2007, UN Doc. A/RES/61/295, Arts. 21 and 22.

[104] I. Altamirano-Jiménez, "The State Is Not a Saviour: Indigenous Law, Gender and the Neoliberal State in Oaxaca," in J. Green (ed.), *Making Space for Indigenous Feminism*, 2nd ed. (Halifax: Fernwood, 2017) pp. 215, 228–229.

[105] See Seck, note 100, pp. 165–166, citing the work of I. Altamirano-Jiménez.

their communities, at times opposing development projects which are supported by others within their community, and subject to harassment if not violence for challenging gender norms.[106] These women must be supported, but this can only be achieved if intersectional dimensions are integrated into the response.

Beyond poverty, gender, and race, there are other environmental justice vulnerabilities to consider. A frequently missing one, including from this book, is disability. According to the World Health Organization (WHO), "vulnerability is the degree to which a population, individual or organization is unable to anticipate, cope with, resist and recover from the impacts of disasters."[107] Disability should play a key role in the application of intersectionality, and an intersectional environmental justice framework should help us see disability justice and racial justice "as not separate but rather interconnected and at times the very same project."[108] For example, in addition to poor people of color who were disproportionately affected by Hurricane Katrina, people with disabilities were also disproportionately affected, yet this did not receive much attention.[109]

As the world experiences more and more adverse consequences of climate change, especially disasters and extreme weather events, we need to pay particular attention to those who will be trapped due to disability or age.[110] The elderly are more prone to extreme weather events than younger age groups as they are less mobile and may not have support networks. For example, in the deadly heatwave in Europe in 2003, during which a record number of 30,000 people perished (15,000 in France alone), the elderly and chronically ill were the most susceptible to the heat.[111] Indeed, as the Deputy Director of Regional Programs of the Global Greengrants Fund has stated: "We are not truly an environmental justice organization unless we have the full understanding of fifteen percent of the world's population. People with disabilities need to be a full part of finding solutions to unequal access to natural resources and right to a healthy environment."[112]

As Kimberlé Crenshaw points out in her pioneering work on intersectionality:

If [we] began with addressing the needs and problems of those who are most disadvantaged and with restructuring and remaking the world where necessary, then others who are singularly disadvantaged would also benefit. In addition, it seems that placing those who are currently marginalized in the center is the most effective way to resist efforts to compartmentalize and undermine potential collective action.[113]

Closely aligned with the intersectionality theory is compound injustice. Proposed by Henry Shue, "compound injustice" occurs when an initial injustice paves the way for a second. An example is when colonial exploitation weakens the colonized nation to such an extent that the

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[106] K. Deonandan and C. Bell, "Discipline and Punish: Gendered Dimensions of Violence in Extractive Development" (2019) 31 *Canadian Journal of Women and the Law* 24.

[107] B. Wisner, J. Adams, and WHO, "Environmental Health in Emergencies and Disasters: A Practical Guide" (WHO, 2002).

[108] See C. Jampel, "Intersections of Disability Justice, Racial Justice and Environmental Justice, Environmental Sociology" (2018) 4 *Environmental Sociology* 122–135.

[109] Ibid.

[110] UNGA, note 97.

[111] The editors of *Encyclopaedia Britannica*, "European Heat Wave of 2003," www.britannica.com/event/European-heat-wave-of-2003.

[112] "Why the Environmental Justice Movement Must Include Persons with Disabilities," Mar. 18, 2019, www.greengrants.org/2019/03/18/disability-and-environment.

[113] See Crenshaw, note 91, p. 167.

colonizer can impose unequal treaties upon it even after it gains independence.[114] The current economic subordination of the Global South[115] is a good example of compound injustice.

Finally, environmental justice movements have recognized the limitations of human-centric conceptions of justice, and have embraced intergenerational justice (the rights of future generations)[116] and the rights of nature to address some of these deficiencies.[117] For example, the principles of environmental justice developed by the delegates to the 1991 First National People of Color Environmental Leadership Summit held in Washington, DC, recognized both intergenerational justice and the rights of nature.[118] Principle 1 "affirms the sacredness of Mother Earth, ecological unity and the interdependence of all species, and the right to be free from ecological destruction."[119] Principle 3 "mandates the right to ethical, balanced and responsible uses of land and renewable resources in the interest of a sustainable planet for humans and other living things."[120] Principle 17 "requires that we, as individuals, make personal and consumer choices to consume as little of Mother Earth's resources and to produce as little waste as possible; and make the conscious decision to challenge and reprioritize our lifestyles to ensure the health of the natural world for present and future generations."[121] In order to operationalize these principles, some scholars have proposed specific criteria for equitably allocating the planet's resources between humans and other living creatures.[122]

In sum, while the environmental justice movement seeks to achieve justice for human beings, increasing attention is being paid to justice for other species.[123] Even the human rights framework, which until recently, was about protecting rights of *human beings*, is increasingly according rights to other species and to nature itself as seen in the 2017 Advisory Opinion of the Inter-American Court of Human Rights.[124]

1.4 OUTLINE OF THE BOOK, CHALLENGES, OPTIONS, AND AREAS FOR FURTHER RESEARCH

This volume is divided into three parts. Part I examines the relationship among environmental justice, sustainable development, and human rights, through several theoretical frameworks. We begin with Erin Daly and James R. May's exploration of human dignity and sustainability, in which they propose that the economic, social, and environmental pillars of sustainability are best

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[114] See H. Shue, *Climate Justice: Vulnerability and Protection* (Oxford: Oxford University Press, 2014), p. 4.
[115] A. Anghie, "The Evolution of International Law: Colonial and Postcolonial Realities" (2006) 27 *Third World Quarterly* 739 at 747.
[116] See generally E. Brown Weiss, *In Fairness to Future Generations: International Law, Common Patrimony, and Intergenerational Equity* (New York: Transnational, 1989).
[117] See generally R. Nash, *The Rights of Nature* (Wisconsin: University of Wisconsin Press, 1989).
[118] See First People of Color Environmental Leadership Summit, "Principles of Environmental Justice," Oct. 24–27, 1991, www.ejnet.org/ej/principles.html.
[119] Ibid., Principle 1.
[120] Ibid., Principle 3.
[121] Ibid., Principle 17.
[122] See J. Riechmann, "Tres principios básicos de la justicia ambiental" (2003) 21 *Revista Internacional de Filosofía Política* 103 at 107–108, 112–115.
[123] See J. Ebbesson, "Introduction: Dimensions of Justice in Environmental Law," in J. Ebbesson and P. Okowa (eds.), *Environmental Law and Justice in Context* (Cambridge, UK: Cambridge University Press, 2009), p. 7.
[124] See Inter-American Court of Human Rights, "Environment and Human Rights, Advisory Opinion OC-23/17 of November 15, 2017," requested by the Republic of Colombia; M. Banda, "Inter-American Court of Human Rights' Advisory Opinion on the Environment and Human Rights" (2018) 22 *American Journal of International Law Insights*; S. Atapattu, "An Idea Whose Time Has Come: On an Emerging Right to a Healthy Environment," Oct. 29, 2019, https://verfassungsblog.de/an-idea-whose-time-has-come.

understood as indivisible aspects of a right to human dignity, rather than being seen as in competition. Usha Natarajan's chapter highlights the usefulness of an environmental justice framework for the Global South, as it facilitates resistance to the universalization that is dominant in international lawmaking, and calls attention to the experiences of subaltern communities so as to build solidarity and foster global change. Deborah McGregor then introduces an Indigenous environmental justice framework drawing upon Anishinabek knowledge systems that have existed for millennia, and questions whether sustainability could ever be achieved based only on human knowledge that ignores reciprocal relations with the natural world, ancestors, and future generations.

Next, Carmen G. Gonzalez introduces a racial capitalism framework for the Anthropocene, crafted to clarify how racial subordination, environmental degradation, and the capitalist world economy are interrelated, with the climate crisis serving to illuminate the links between forms of oppression that are otherwise seen as disconnected. The relationship between human rights and socioecological justice, informed by vulnerability theory, is explored in the chapter written by Louis J. Kotzé, who proposes that vulnerability's embodied yet post-identity approach could inform a move away from Western neoliberal human rights toward a more contingent understanding of the entire living order's vulnerability. Socioecological resilience and its relationship to the social pillar of sustainable development is the subject of Barbara Cosens's framework chapter, in which she clarifies that as a theory of system properties, resilience theory cannot be a substitute for normative goals evident in concepts such as sustainable development, yet resilience theory can confirm that just societies are better equipped to adapt to change. Finally, we conclude Part I with a coauthored contribution by Robin Morris Collin and Robert W. Collin, who provide a history of the US environmental justice movement and call for intergenerational and transformative development by linking place-based reparations with ecosystems and communities.

Part II, the heart of the book, consists of a series of case studies on selected environmental justice struggles in the Global North and the Global South. The case studies examine the intersecting forms of oppression that produce environmental injustice in specific contexts, and the legal strategies that can and have been developed to combat these inequities. Given the wide range of intersecting issues and the sheer number of environmental justice struggles around the world, this book can only scratch the surface of this topic. In order to provide some structure, the case studies are divided into five, at times, overlapping and interrelated sections: Strategies, Challenges, and Vulnerable Groups; Toxic Substances and Hazardous Wastes; Resource Extraction; Energy; and Climate Change.

Our first case study in the Strategies, Challenges, and Vulnerable Groups section is Shyami Puvimanasinghe's exploration of public interest litigation in South Asia and the role of selected environmental justice cases in realizing sustainable development, including through the adoption of the right to development. We then turn our attention to children's rights in a contribution by Mona Paré who considers the environmental justice implications of approaching the rights of children in sustainable development through an intergenerational equity lens as compared to a child rights lens. Moving to Latin America, Patrícia Galvão Ferreira and Mario Mancilla offer a case study of water as life from the perspective of the Indigenous communities in Totonicapán, Guatemala, and argue that the new Escazú Agreement on procedural environmental rights missed an opportunity to fully integrate the type of Indigenous cosmovision evident in Totonicapán's water governance system. Jacinta Ruru provides further insights into Indigenous environmental justice in her chapter on legislative changes in Aotearoa, New Zealand, that recognize the legal personality of land, a river, and a mountain, in keeping with

Māori Indigenous laws. Next, strategies to achieve water justice in Israel and the West Bank are explored by Tamar Meshel, who concludes that water justice for the Bedouin and Palestinians will not be forthcoming while the right to water is narrowly interpreted and divorced from historic contexts and socioeconomic conditions, as well as obligations of antidiscrimination. Damilola S. Olawuyi then considers how preexisting vulnerabilities of gender and indigeneity in postcolonial Africa combine to magnify risks in the context of climate change mitigation and adaptation in two Nigerian case studies. Finally, Lakshman Guruswamy, Joshua C. Gellers, and Sumudu Atapattu turn to the failure to date of varied environmental justice strategies in Sri Lanka to successfully challenge the construction of the Colombo International Financial City, part of China's Belt and Road Initiative.

Our second set of case studies turns to environmental injustice in relation to toxic substances and hazardous wastes. First, Sabaa Ahmad Khan explores international trade in hazardous chemicals and waste, concluding in part that a lack of transparency in global commodity chains inhibits our capacity to protect human and ecosystem health, but that embedding responsibility and accountability into a life cycle approach, including the business responsibility to respect human rights, could be transformative. Next, Quoc Nguyen, Linda Tsang, and Tseming Yang tell the story of the Wengyuan County Cancer Villages in China's Guangdong Province, revealing how the economic and social marginalization of some communities makes them less resilient to adverse environmental and health consequences, while also less able to seek legal recourse. Finally, Antoni Pigrau turns our attention to the Marshall Islands and its colonial history of nuclear testing as illustrative of how colonialism and a failure to remedy historic environmental injustice combine to prevent future realization of sustainable development.

The third set of case studies examines environmental justice challenges in the resource extraction context. Stellina Jolly first introduces the Vedanta case study in which the Indian Supreme Court embraced a new interpretation of tribal rights as an essential component of effective participation in sustainable development. Jackie Dugard examines the historic injustice of the Tudor Shaft case in South Africa and highlights the ineffectiveness of the South African government's single-axis approach to dealing with intersectional social and ecological disadvantage. Finally, Sara L. Seck and Penelope Simons examine Canada's role as both home and host state in the context of sustainable mining and environmental justice, drawing attention to the failure of Canada's domestic and transnational legal and policy responses to fully embrace respect for the human rights of women and girls.

Next, we consider four case studies involving energy. Rebecca M. Bratspies explores the environmental justice dimensions of the successful campaign to close the Poletti Power Plant in New York City, leading to improved environmental quality for an overburdened environmental justice community, yet failing to be truly transformative due to its failure to openly confront related legacies of racism. This is contrasted with Elizabeth Kronk Warner's recounting of the Dakota Access Pipeline story and the unsuccessful efforts of Tribes and water protectors to halt its construction, due to the failure of decision makers to take seriously the unique issues that Indigenous peoples face, including applicable domestic and international law, tribal sovereignty, and connection to land and waters. Next, Lakshman Guruswamy considers the challenges confronting the energy poor and the disproportionate impact of energy poverty on women, in violation of international justice and sustainable development. Finally, Adrian A. Smith and Dayna Nadine Scott examine the transformative potential of participation by Indigenous communities in large-scale renewable energy generation, when community led, drawing upon the experiences of the Batchewana First Nation in Ontario, Canada.

Our final set of three case studies explores the challenge of climate change. The first, by Alice Kaswan, considers climate justice implications in the Californian context of climate mitigation policies, with attention to participatory and distributive justice and the importance of climate transition initiatives recognizing underlying historic and socioeconomic contexts. The second case study, a chapter coauthored by Katherine Lofts and Konstantia Koutouki, turns to the Canadian Arctic and considers how integration of eco-health concerns in environmental impact assessment processes could help to better incorporate Inuit world views and knowledge, and so provide for greater adaptability to a rapidly changing environment. Finally, Sumudu Atapattu and Andrea C. Simonelli conclude with a study of small island states, focusing on the challenges facing the poor and marginalized in the Maldives due to both climate change and changing political agendas that prioritize mass tourism and mega-development over climate justice.

Part III of the book addresses cross-cutting issues and topics based on the case studies in Part II. It offers reflections on the case studies that tease out their practical and theoretical ramifications for strategic litigation and political mobilization. Angela P. Harris' contribution reflects on how a law and political economy approach to these environmental justice case studies reveals the common roots of these struggles in an economic order that treats nature as an infinite resource for human domination and exploitation and creates seemingly intractable human hierarchies. The final chapter by the editors considers the lessons offered by the case studies (including topics for further research) in order to overcome the fragmentation of legal frameworks and social movements and develop holistic solutions that are both just and sustainable.