



Expanding the Legal Dimensions of Sustainability

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I. Introduction

This volume is the result of research conducted under the international project ‘ESCOPE4Green – Enhancing Sustainable Consumption and Production for the Green Transition’, led by Professor Lucia Ruggeri at the University of Camerino (UNICAM). The project is supported by the European Commission’s ‘NextGenerationEU’ recovery plan, the Italian Ministry of University and Research (*Ministero dell’Università e della Ricerca*), and Italy’s National Recovery and Resilience Plan. Camerino, uniquely located near the Sibillini Mountains National Park in Central Italy, is known for its small villages, which rely on rural tourism and agri-food businesses. However, the region is also prone to seismic activity. For example, in 2016 Camerino was struck by a devastating earthquake. As a result, all research units at UNICAM – including those in law, social sciences, architecture, geology, and information and communications technology – have actively contributed to post-disaster revitalization efforts through specialized doctoral and international collaborative programmes.

In the aftermath of this catastrophic event, it became clear that the legal framework was inadequate to address the specific needs of the affected population. Small businesses, for instance, were left without insurance coverage because earthquakes in this high-risk seismic zone were not covered by insurance law. Additionally, elderly residents were unable to access disability assistance, as healthcare and construction laws were too slow to adapt to their urgent mobility and healthcare needs.¹ Given these challenges,

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¹ In October 2023, I visited Camerino as a Visiting Professor of Law and interviewed small business owners about the 2016 earthquake and its aftermath. The text translates excerpts of those testimonies.

Camerino provides an ideal setting for applying an infrastructural approach to law. The ESCOP4Green project emerged from this research environment, aiming to foster a culture of sustainability in a region where resilience and resource scarcity are familiar realities.

The concept of sustainability was defined in 1987 by the United Nations Brundtland Commission as ‘meeting the needs of the present without compromising the ability of future generations to meet their own needs’.² Sustainability has emerged as one of the most pressing challenges of our time, intricately linked to humanity’s survival and the preservation of Earth’s ecosystems.³ As a concept, it transcends geographical, industrial, and academic boundaries, creating fertile ground for interdisciplinary and polycentric approaches to law.⁴

Rather than viewing law as an isolated domain, sustainability compels us to see it as a dynamic field that must constantly interact with other social systems, such as markets and communities within different societies. Yet, the mechanisms through which law communicates and coordinates with these systems remain opaque. A reflexive theory of law, which treats legal frameworks as self-contained and self-reinforcing, offers limited insight into how law can effectively navigate and shape the broader societal and environmental interactions necessary for sustainable development.⁵

The papers presented in this volume address this complexity by illustrating how legal frameworks have emerged as key mechanisms through which societies confront environmental, social, and economic sustainability challenges. The growing body of scholarship on sustainability in law offers various perspectives on how sustainability principles are being integrated into governance structures, corporate practices, and individual responsibilities.⁶

² United Nations, *Report of the World Commission on Environment and Development: Our Common Future* (1987).

³ N. Gunningham, ‘Environment Law, Regulation and Governance: Shifting Architectures’ 21 *Journal of Environmental Law*, 179-212 (2009); K. Bosselmann, *The Principle of Sustainability: Transforming Law and Governance* (Abingdon, Oxfordshire, New York, NY: Routledge, 2nd ed, 2017).

⁴ E. Ostrom, ‘A Polycentric Approach for Coping with Climate Change’ *World Bank Policy Research Working Paper No. 5095* (2009).

⁵ G. Teubner, ‘Substantive and Reflexive Elements in Modern Law’ 17 *Law and Society Review*, 239-285 (1983).

⁶ W.M. Lafferty ed, *Governance for Sustainable Development: The Challenge of Adapting Form to Function* (Cheltenham, UK; Northampton, MA, USA: Edward Elgar, 2006); N. Gunningham, ‘Environment Law, Regulation and Governance: Shifting Architectures’ 21 *Journal of Environmental Law*, 179-212 (2009); A. D’Amato, S. Henderson and S. Florence, *Corporate Social Responsibility and Sustainable Business: A Guide to Leadership Tasks and Functions* (Greensboro, North Carolina: CCL Press,

This volume contributes to this scholarship by examining evolving regulatory frameworks and practices rooted in freedom of contract, a principle central to diverse legal institutions, such as civil codes in the civil law tradition and the courts of Delaware, where businesses often choose to incorporate. Aware of this legal eclecticism, the authors approach sustainability from an intergenerational perspective.⁷

Although much of the current discourse focuses on defining and operationalizing sustainability within Western contexts, particularly in Europe and the United States, this volume seeks to broaden the debate. By incorporating perspectives from Latin America (Colombia), Asia (Japan and Thailand), and Alaska, home to a significant indigenous population, we aim to enrich the global dialogue on sustainability. Our infrastructural approach emphasizes the diverse theoretical, normative, and conceptual dimensions of governing environmental, social, and economic issues through law across various geopolitical and cultural contexts.

The papers methodologically analyse the complex legal interactions among numerous hard and soft law provisions of international, European, and national origin. However, for this intricate regulatory network to be effective, common and harmonized solutions are needed to address climate emergencies, poverty, and economic inequality. In this context, sustainability serves as the guiding principle, not only for the legitimacy of legislative activity but also for evaluating the merit of contractual practices and business activities.

II. Sustainability in Western Legal Thought: Defining the Framework

Western legal thought and traditions are deeply rooted in Roman law. The Code of Justinian (*Codex Justinianus*), compiled between

2009); J. Benidickson, B. Boer, A.H. Benjamin and K. Morrow eds, *Environmental Law and Sustainability after Rio* (Cheltenham, UK; Northampton, MA, USA: Edward Elgar, 2011); M.T. Bodie, 'NASCAR Green: The Problem of Sustainability in Corporations and Corporate Law' 46 *Wake Forest Law Review*, 101-132 (2011); K. Bosselmann, *The Principle of Sustainability: Transforming Law and Governance* (Abingdon, Oxfordshire; New York, NY: Routledge, 2nd ed, 2017); S. Gadinis and A. Miazad, 'Corporate Law and Social Risk' 73 *Vanderbilt Law Review*, 1401-1478 (2020); C. Liao ed, *Corporate Law and Sustainability from the Next Generation of Lawyers* (Montreal: McGill-Queen's University Press, 2022); A.R. Palmiter, *Sustainable Corporations* (USA: Aspen Publishing, 2023).

⁷ A. Gosseries and L.H. Meyer eds, *Intergenerational Justice* (Oxford: Oxford University Press, 2009).

529 and 534 in the 6th century and rediscovered in Western Europe during the 11th century, profoundly influenced European legal scholarship. Its impact extended from the Middle Ages, following the fall of the Roman Empire in the 5th century, through the Renaissance (14th century), the Early Modern Period (16th to 18th centuries), and into the Modern Era (19th and 20th centuries). The process of legal codification, which relies on generalization and abstraction, has methodologically shaped the self-referential nature of traditional legal systems. However, legal formalism now faces growing challenges and a deeper sense of crisis in the context of globalization, technological advancements, and pressing issues like environmental sustainability and intergenerational justice.

This existential and evolutionary dynamic of the law is particularly evident in the West, especially in Europe and the United States, where legislative bodies have established institutional frameworks to define, regulate, and promote sustainability.⁸ In Europe, sustainability is increasingly embedded in constitutional and corporate governance frameworks, reflecting the European Union's commitment to long-term environmental goals and regulatory philosophy. Key initiatives, such as the EU's *Corporate Sustainability Due Diligence Directive* (Directive 2024/1760) (CSDDD), which entered into force on 25 July 2024,⁹ and the *European Green Deal* serve as central pillars of this approach,¹⁰ urging Member States and corporations to comply with stringent environmental, social, and governance (ESG) standards.

In this context, **Lucia Ruggeri's** analysis of the CSDDD is especially noteworthy. The European legislator, drawing from global soft law developments, positions sustainability as a crucial instrument for enhancing competition and resilience, applicable to all market operators with substantial activities within the EU. The Directive seeks to create a harmonized regulatory framework, addressing the issues posed by fragmented legislation across Member States.

⁸ Another issue is whether a Western-based definition of sustainability adequately serves the interests of countries in Africa, Asia, and Latin America. However, this question falls outside the scope of this piece.

⁹ European Parliament and Council Directive 2024/1760/EU of 13 June 2024 on corporate sustainability due diligence and amending Directive (EU) 2019/1937 and Regulation (EU) 2023/2859, available at <http://data.europa.eu/eli/dir/2024/1760/oj> (last visited 30 September 2024).

¹⁰ H. Dyrhaug and K. Kurze eds, *Making the European Green Deal Work: EU Sustainability Policies at Home and Abroad* (Abingdon, Oxfordshire; New York, NY: Routledge, 2024).

Ruggeri's work also prompts a deeper examination of businesses' environmental responsibilities, with a strong focus on prevention. This approach advocates for interpretative solutions that prioritize the fundamental values of Member States, particularly by promoting *ex-ante* risk assessments to prevent harm, rather than relying solely on *ex-post* compensation. Her article further explores the Italian legal system, characterized by a rigid constitution and a personalistic approach. She advocates for a hermeneutic methodology focused on identifying legal solutions that prioritize individual protection, aligning with Italy's constitutional framework and its broader legal traditions.

The balance between economic initiative and sustainability in light of climate change and new environmental-related challenges, which have captured the attention of corporate boards in Europe and around the world, is the subject of **Giovanni Russo's** paper.¹¹ Finding this balance requires deep reflection on the evolving forms of corporate social responsibility. As doctrine, jurisprudence, and legislation evolve, they consistently underscore the obligation to respect the right to a healthy environment. Russo's contribution, grounded in a methodological approach that prioritizes individual protection and carefully considers each case, explores the diverse roles that corporate responsibility can assume in different contexts.

Several papers in this volume highlight the European context and address what is perceived as the European commitment to sustainability from different perspectives – regulatory, financial, contractual, and jurisprudential. **Federica Laura Maggio** explores the proposed reforms to European pharmaceutical legislation, with a focus on the regulation of marketing authorizations, pre-authorization of environmental risk assessments, and the potential loosening of industrial property rights and patent protection. By examining these areas, her paper highlights key challenges regarding the role of investments in supporting pharmaceutical research and production. It offers valuable insights into the public-private relationship in the pharmaceutical sector, particularly in terms of attracting private capital for research, innovation, and the sector's green transition.

Sara Zuccarino examines the ecological foundations of Italian-European legislation, where environmental protection serves as a

¹¹ See also L. Vicente, 'Corporate Governance in the United States, the United Kingdom, New Zealand, Canada, South Africa, India and Singapore', in J.J. du Plessis, A. Hargovan and B. Nosworthy eds, *Principles of Contemporary Corporate Governance* (Melbourne: Cambridge University Press, 5th ed, 2024), 277-289.

guiding principle shaping all human activity aimed at enhancing societal well-being. This shift in values is explored with particular focus on its implications for the pharmaceutical sector.

Maria Francesca Lucente's analysis focuses on achieving the responsible production and consumption of pharmaceuticals to minimize environmental and social impacts while promoting sustainable human and environmental development. This goal requires the use of eco-friendly resources, energy-efficient production methods, and proper disposal practices for medicines. Lucente argues for the urgent need to adopt a cross-sectoral legal approach that introduces a new paradigm of contractual autonomy and rethinks the regulation of private relations. Such an approach should prioritize the comprehensive protection of fundamental human rights with a long-term, solidaristic, and intergenerational perspective.

The importance of sustainability as a key criterion in the adoption of new technologies in the building sector and the integration of new participants in the construction process is a focus of **Manuel Ignacio Feliu Rey's** work. Building Information Modelling (BIM) technology enhances both quality and sustainability by enabling real-time management and continuous updates of shared information. As the author explains, BIM is projected to significantly contribute to sustainability in the construction industry, with an estimated 15% reduction in waste volume and a 57% decrease in waste management costs.

Karina Zabrodina's work examines the legal challenges surrounding mixed-use buildings in the context of the *Energy Performance of Buildings Directive* (2024/1275/EU).¹² It considers criteria such as ownership and intended use, as applied in Italy, and the separation criterion used in the United States. The analysis includes a review of European and national case law related to mixed contracts. Additionally, the paper explores the energy efficiency framework for buildings in the United States and proposes tools that could be employed to finance energy adaptation initiatives.

¹² European Parliament and Council Directive 2024/1275/EU of 24 April 2024 on the energy performance of buildings, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ%3AL_202401275 (last visited 2 October 2024). See also the revised *Energy Efficiency Directive*, European Parliament and Council Directive 2023/1791/EU of 13 September 2023 on energy efficiency and amending Regulation (EU) 2023/955, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ%3AJOL_2023_231_R_0001&qid=1695186598766 (last visited 2 October 2024).

Socio-environmental goals impact not only business activity but also traditional civil law and common law institutions, such as obligations and contracts. This is evident in the recent European regulations on financial instruments discussed by **Adele Emilia Caterini**. Efforts to align obligatory legal relationships with ecological concerns have led to the establishment of investor remuneration that is below the market interest rates or tied to predefined environmental sustainability outcomes. This redefines the compensatory nature of these relationships by incorporating benefits that are broadly patrimonial in nature, aimed at serving social utility or the general interest. As a result, these can be viewed as *social obligatory relationships* – legal frameworks involving multiple parties who are the direct beneficiaries of non-financial benefits derived from constitutionally valued activities.

Gianna Giardini explains that achieving the goals outlined in the United Nations 2030 Agenda will require new legal infrastructures to regulate evolving social realities.¹³ While private autonomy remains central, legal practitioners must rethink traditional legal categories. Legal models that extend beyond the relative effects of contracts are necessary, especially in considering the interests of third parties potentially affected by private contractual decisions. In this emerging framework, grounded in principles of sharing and care, third parties should be actively involved through consultation and information processes and granted the right to take legal action if their right to consultation is infringed. A reinterpretation of the general principle of good faith can drive this transformation. Giardini's contribution seeks to redefine a sustainable legal order, where contractual freedom is balanced with care for both people and the environment, aligning with broader scholarship on the ripple effects of the principle of freedom of contract.¹⁴

Manuela Giobbi reflects on the roles of contracts in regulating the energy market and safeguarding human rights. She asserts that sustainability, as a fundamental requirement for all activities, ensures equitable development for both present and future generations. Accordingly, she explains that the principle of sustainability has become a key element in corporate due diligence, market negotiations, and consumer behaviour. Giobbi emphasizes the need to examine how contracts can promote sustainable

¹³ Transforming our World: The 2030 Agenda for Sustainable Development (A/70/L.1) adopted by the Resolution of the General Assembly on 25 September 2015.

¹⁴ L. Vicente, 'Ownership Piercing' 17 *Ohio State Business Law Journal*, 129 (2023).

development, contribute to societal well-being, and serve as a tool to support vulnerable populations.

Davide Castagno and **Maria Pia Gasperini** examine the key procedural challenges faced by individuals and environmental associations in lawsuits against states for failing to address climate change. They focus on two landmark cases: the ruling by the Court of First Instance of Rome on 6 March 2024 in the *Last Judgment* case and the judgment of the European Court of Human Rights (ECtHR) in the *KlimaSeniorinnen* case on 9 April 2024. The authors analyse both decisions, considering the potential impact of the ECtHR ruling on future national court decisions in climate change litigation.

The development of renewable energies plays a crucial role in the fight against climate change and the effective achievement of a sustainable energy transition. **Ivan Libero Nocera** explores a critical but underexamined issue: whether Renewable Energy Communities (RECs) should be classified as entrepreneurial or non-entrepreneurial entities. This distinction is vital, as it has significant practical and operational implications, particularly regarding the taxation of business income. To fully leverage RECs for increasing renewable energy production, it is essential to interpret their regulatory framework – currently silent on this matter – in the most expansive and effective way possible.

III. Expanding Beyond the West: Lessons from Latin America, Asia, and Alaska

As the global community grapples with the challenge of achieving sustainable economic development, it is essential to look beyond the Euro-American axis and consider the innovations and challenges emerging from other parts of the world. This volume contributes to that effort by including case studies and legal analyses from Latin America, Asia, and geographically isolated regions such as Alaska.

1. Latin America: Ecological Constitutionalism and Indigenous Rights

In Latin America, particularly in countries like Colombia, sustainability is not just a policy issue – it is woven into the legal and constitutional fabric of the state. **Riccardo Perona**'s analysis of 'ecological constitutionalism' in Colombia exemplifies this by focusing on the legal recognition of rivers as rights-bearing entities.

This approach, rooted in indigenous worldviews, treats nature as a living entity deserving of protection and regeneration rather than merely a resource to be exploited.

Perona's exploration of the *Cauca River* case demonstrates how indigenous perspectives have significantly reshaped Colombia's legal frameworks, offering an ecocentric model for embedding sustainability into law. This stands in stark contrast to the more anthropocentric models prevalent in Western legal systems, where sustainability is often understood through the lens of human welfare and economic growth. Perona's work underscores that sustainability is not only a mechanism to address environmental degradation but also a means of safeguarding cultural and social rights, particularly for indigenous communities.¹⁵

The recognition of nature as a legal subject challenges traditional legal formalism and signifies a radical rethinking of the relationship between law and the environment. While this ecocentric approach is gaining traction in Western legal thought, it has yet to be fully embraced. Perona's contribution highlights the transformative potential of ecological constitutionalism and its role in shaping a more inclusive and sustainable legal order.

2. Asia: Bottom-Up Sustainability and Community-Driven Models

Asia offers another rich vein of legal innovation in the field of sustainability. **Kozue Kashiwazaki** focuses on urban housing issues, regional disparities, and sustainable market models in rapidly urbanizing Asian countries. She analyses a new business model of SMEs established in Japan as an example of how community-driven initiatives and 'prosumer' engagement – where consumers also contribute as producers – can foster sustainable markets.

The central thesis of Kashiwazaki's paper is that sustainable development in urban areas can be effectively driven by bottom-up processes that empower local communities to take an active role as 'prosumers'. The study emphasizes that this approach leads to continuous improvement in economic and environmental sustainability by fostering community cohesion and responsible consumption patterns.

¹⁵ K.S. Coates, *A Global History of Indigenous Peoples: Struggle and Survival* (Hampshire, UK; New York, NY: Palgrave Macmillan, 2004); United Nations Declaration on the Rights of Indigenous Peoples (2007).

The paper draws on the Japanese business philosophy of *Sampo-Yoshi* (three-way satisfaction for sellers, buyers, and the community) to illustrate the potential of sustainable markets in developed and developing countries. By incorporating this centuries-old principle into modern business practices, Japanese SMEs demonstrate how sustainability can be intertwined with economic efficiency and social responsibility. This bottom-up approach, which emphasizes the role of local cultures and communities in shaping sustainable development practices, offers a valuable counterpoint to the Western focus on ESG strategies.

Although Kashiwazaki's research focuses on Japan and Thailand, it touches on broader socio-economic realities across Asia, including refugee camps, migrant schools, and the role of NGOs in supporting vulnerable populations. Additionally, her work prompts reflection on our own lifestyles, particularly in terms of energy consumption.

3. Comparative Approaches Addressing Negative Externalities in Electricity Generation: The Cases of Alaska and Sweden

Art Nash and Gianna Giardini address the environmental and social externalities produced by electricity generation from renewable and non-renewable sources. They compare how Alaska and Sweden tackle these externalities, focusing on legal remedies and frameworks. They argue that the European approach, as demonstrated by Sweden, is more aligned with the concept of 'the commons', which emphasizes community involvement and preventive measures.¹⁶ The authors point out that this approach is more effective than the judicial and compensatory strategies adopted in Alaska, particularly in ensuring energy justice, safeguarding community interests, and achieving sustainability goals without delays.

Their analysis focuses on the negative externalities deriving from fossil fuel extraction in Alaska, particularly the *Exxon Valdez* oil spill in 1989. Among the most profound of these externalities is the phenomenon of 'climigration' – the forced migration of several coastal Alaska tribes who must abandon their ancestral homes due to the environmental degradation caused by oil extraction and carbon emissions.

The judicial system in the US, which traditionally focuses on compensation for damages, has struggled to adequately address the

¹⁶ E. Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (New York, NY: Cambridge University Press, 1990).

complex and long-term impacts of such environmental harm, particularly when it involves the forced relocation of entire communities. Measuring the full scope of environmental damage, including cultural and social dislocation, and assigning responsibility have proven to be a challenge. The paper discusses the inadequacies of relying on compensatory mechanisms to address the broader impacts of fossil fuel-related environmental disasters, particularly in the context of the global energy transition.

In contrast, Sweden's focus is on renewable energy production, especially wind power and hydropower. The Swedish model emphasizes direct community involvement and the creation of agreements between local communities and energy producers to mitigate negative impacts, such as those affecting the indigenous *Sami* people. This collaborative, community-driven, bottom-up approach is reminiscent of Japan's philosophy of integrating local perspectives and shared responsibility into its sustainability efforts. The authors conclude that the legal framework in Sweden is more preventive, prioritizing sustainability and the fair distribution of benefits and burdens of energy projects, empowering local communities, and involving them in decision-making, thus better aligned with the theory of the commons.

IV. The Global Imperative for Sustainability: Toward an Integrated Legal Framework

The contributions in this volume highlight the imperative for legal systems to adopt sustainability as a core organizing principle. Whether through the Corporate Sustainability Due Diligence Directive in Europe, ecological constitutionalism in Colombia, or bottom-up, community-driven models in Asia, the direction is unmistakable: sustainability is no longer optional but a legal necessity. This collection of papers offers valuable insights into how the law can evolve and interact with other social systems to ensure that sustainability-based reasoning becomes a practical reality.

The diverse approaches presented in this volume underscore the need for a more integrated and global perspective on sustainability, especially in light of the complex environmental challenges facing the world. In this respect, **Elisabetta Ceroni** analyses the fiscal policies of the United States and the European Union, particularly environmental taxation, which she considers critical for promoting sustainable practices and fostering green communities in line with

the Sustainable Development Goals (SDGs).¹⁷ Ceroni examines how fiscal measures in the United States and the European Union, through the *Inflation Reduction Act* (IRA) of 2022,¹⁸ and the *Green Deal Industrial Plan*,¹⁹ respectively, can influence behaviours, support ecological transitions, and drive international cooperation for a fair and inclusive green transition.

While Europe and the United States have made notable progress in embedding sustainability within their legal frameworks, the lessons from Latin America, Asia, and Alaska reveal that diverse cultural perspectives, social structures, and legal traditions offer valuable insights into the broader concept of sustainable development. These experiences highlight that sustainability is far from a uniform concept and is enriched by a multiplicity of approaches.

In this regard, the contributions to this volume define sustainability within the Western legal context, but they also push beyond it, encouraging a more inclusive, global dialogue about what sustainability means and whom it serves. This conversation is particularly timely in a world facing both the pressures of globalization and the rise of regional blocs like Brazil, Russia, India, China, and South Africa (BRICS), signalling a shift toward deglobalization.

We hope this volume contributes meaningfully to the ongoing discourse on sustainability, shedding light on its political, social, and economic dimensions and offering perspectives that can guide us toward a more sustainable and equitable future for all, regardless of geographical location.

¹⁷ Transforming Our World: The 2030 Agenda for Sustainable Development (A/70/L.1) adopted by the Resolution of the General Assembly on 25 September 2015. See also F. Biermann, T. Hickmann and C.-A. S nit eds, *The Political Impact of the Sustainable Development Goals: Transforming Governance through Global Goals?* (Cambridge: Cambridge University Press, 2022), available at <https://doi.org/10.1017/9781009082945> (last visited 3 October 2024).

¹⁸ Public Law No 117-169 (08/16/2022).

¹⁹ Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee of the Regions, 'A Green Deal Industrial Plan for the Net-Zero Age' COM(2023) 62 final, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52023DC0062> (last visited 3 October 2024).