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Sustainable Legal Infrastructures: Comparative Responses Across Cultures and Systems

edited by Lucia Ruggeri, Lécia Vicente and Sara Zuccarino

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Table of Contents

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The Italian Law Journal is sponsored by 'Harvard Italian Law Association' (HILA), 'Società Italiana degli Studiosi del diritto civile' (SISDIC), 'Società Italiana per la ricerca nel diritto comparato' (SIRD), 'National Italian American Bar Association' (NIABA).

Expanding the Legal Dimensions of Sustainability

Lécia Vicente*

I. Introduction

This volume is the result of research conducted under the international project 'ESCOP4Green – 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. Dyrhauge 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. Sénit 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).

Corporate Due Diligence Between the Needs for the Implementation of Sustainability and Protection of Human Rights

Lucia Ruggeri*

Abstract

The implementation of the 2030 Agenda is a shining example of the need to transcend the traditional divide between public and private law, requiring a mixed approach in which State regulation is necessarily combined with forms of self-regulation. The EU Directive on Corporate Sustainability Due Diligence, which employs soft law techniques, serves as a prime example of this interplay between State regulation and international standardization processes. The Directive, embedded in sustainable transition law, addresses corporate responsibility, by invoking the principle of solidarity and affecting civil liability. It mandates the protection of human rights throughout the production chain. The European regulation, which aims to harmonize the market, prompts reflection on the level of protection of the person, which in systems such as the Italian one raises the problem of overcoming compensatory logic and leads to the search for preventive measures to safeguard individual interests.

Keywords

Due Diligence, Global Value Chains, Sustainability, Brussels Effect, Liability, Personal Rights.

I. The Implementation of the UN's 2030 Agenda Between State and Self-Regulation. Supply Chain Due Diligence as a Case Study. Reasons and Relevance of the Analysis

There is wide debate on the best and fastest way to implement the UN's 2030 Agenda[1] within markets globally.

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[1] See, among others, S. Atapattu, 'International Environmental Law and Soft Law: A New Direction or a Contradiction?', in C.M. Bailliet ed, *Non-State Actors, Soft Law and Protective Regimes from the Margins* (Cambridge: Cambridge University Press, 2012), 202; E. Giovannini, *L'utopia sostenibile* (Bari-Roma: Laterza, 2018), 35; L. Floridi, *Il verde e il blu* (Milano: Raffaello Cortina Editore, 2020), 255; C. Coglianese, 'Environmental Soft Law as a Governance Strategy' 61 *Jurimetrics*, 19-51 (2021); R. Michaels, V. Ruiz Abou-Nigm and H. van Loon, *The Private Side of Transforming our World. UN Sustainable Development Goals 2030 and the Role of Private International Law* (Cambridge: Intersentia, 2021), 9.

In very general terms, it can be said that this topic addresses two main opposing approaches:[2] on the one hand, authoritative intervention, made up of state legislation or international treaties,[3] which impose obligations and outline responsibilities; on the other hand, the adoption of commercial practices[4] and uniform rules which, on a voluntary basis,[5] promote the pursuit of the objectives of the Agenda.[6]

At first glance, legislative action seems to have the greater impact because it is characterized by cogency, generality, and completeness, while relying on spontaneous adoption by companies would seem to offer fewer guarantees.[7] On the other hand, the implementation of an international normative instrument, such as the UN Agenda, presents numerous problems[8] resulting from different regulatory approaches adopted by each State, the timing of adoption, which is difficult to synchronize, and cultural differences

[2] K.W. Abbott and D. Snidal, 'Hard and Soft Law in International Governance' 54 *International Organization*, 421-456 (2000).

[3] The adoption of an international treaty dedicated to the respect of human rights by businesses will be discussed by the IGWG of the UN Human Rights Office during the 10th working session scheduled in Geneva in October 2024. On the troubled process of adoption of the Treaty, see: R. Vecellio Segate, 'The First Binding Treaty on Business and Human Rights: A Deconstruction of the EU's Negotiating Experience Along the Lines of Institutional Incoherence and Legal Theories' 26 *International Journal of Human Rights*, 122 (2022). The regulation of value chains fuels the debate on the neo-colonialism of developed countries towards developing countries. In this sense, see, among others, C.O. Lichuma, '(Laws) Made in the "FirstWorld": A TWAIL Critique of the Use of Domestic Legislation to Extraterritorially Regulate Global Value Chains' 81 *Heidelberg Journal of International Law*, 497-532 (2021).

[4] The UN's action to develop a sustainability-driven business culture is intense. On this point, see 'The Ten Principles of the UN Global Compact'. See also E. Bani, 'Regole di solidarietà e diritto dei mercati', in M. Passalacqua ed, *Diritti e mercati nella transizione ecologica e digitale* (Padova: CEDAM, 2021), 161-162. The relationship between sustainable development, the market, and contractual relationships is outlined by E. Caterini, *Sostenibilità e ordinamento civile* (Napoli: Edizioni Scientifiche Italiane, 2018), 96; M. Pennasilico, 'La "sostenibilità ambientale" nella dimensione civil-costituzionale: verso un diritto dello "sviluppo umano ed ecologico"' *Rivista quadrimestrale di diritto dell'ambiente*, 185 (2020) and S. Zuccarino, 'Sostenibilità ambientale e riconcettualizzazione del contratto' *Annali della Società Italiana degli Studiosi del Diritto Civile*, 65-84 (2022).

[5] D. Vogel, 'Private Global Business Regulation' 11 *Annual Review of Political Science*, 261-282 (2008).

[6] See M. Bartl, 'Toward Transformative Private Law: Research' *The Italian Law Journal*, 413-423 (2023).

[7] See, in this regard, European Commission, *Study on Due Diligence Requirements Through the Supply Chain. Final Report* (Brussels: Publications Office, 2020), 48.

[8] The UN Agenda is the basis of a transition law in which the general and abstract normative model is often too rigid with respect to the transformative thrust. On the subject, see S. Grassi, 'Environmental Protection in International, European and Internal Sources' 13 *federalesmi.it*, 1, 4-46 (2023).

which, inevitably, have repercussions on internal legislative processes. The creation of uniform rules spontaneously adopted by market operators ends up, therefore, being a strong option because it has the effectiveness of soft law,[9] a regulatory technique that has proven successful in promoting market globalization[10] and overcoming the obstacles posed by legislative fragmentation.

To outline the advantages and disadvantages of the two approaches and to understand how sustainability is pursued by the European Union, a useful case study seems to be the Corporate Sustainability Due Diligence Directive (CSDDD),[11] which entered into force on 25 July 2024. The corporate sustainability due diligence transfers to companies the obligations to respect human rights in the transnational value chain under the application of the Directive to be transposed into the 27 legal systems of the Member States. Analysing it allows us to reflect on a relevant issue such as the level of individual protection offered by European Union law, with specific focus on the Italian system characterized by a rigid, personalist-based Constitution.

As clearly stated in the Communication on the Green Deal,[12] to achieve sustainable development, which is a priority for the Union,[13] synergic action between public authorities and private actors is necessary: sustainability that includes human rights, environment, and climate therefore requires the full involvement of all market players including companies. The CSDDD can hence be interpreted as a market governance tool, but also as an expression of Art 191 TFEU, which calls for a high level of protection and the promotion of European fundamental values. The impact of the CSDDD is significant because due diligence affects entire contractual supply chains in a variety of markets, leading to their sustainability-driven transformation. This is an indirect transformation resulting from a process of regulatory osmosis that constitutes one of the European Union's greatest bets on the path to sustainability.

[9] G.C. Shaffer and M.A. Pollack, 'Hard vs. Soft Law: Alternatives, Complements and Antagonists in International Governance' 94 *Minnesota Law Review*, 706-799 (2010).

[10] Soft law in the commercial field has generated the so-called new *lex mercatoria*. F. Galgano, *Lex mercatoria* (Bologna: Il Mulino, 2016), 32.

[11] 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 [2024] OJ L series.

[12] European Commission, 'The European Green Deal' (Communication) COM(2019) 640 final.

[13] Sustainable development is at the heart of the Green Deal. It is mentioned in several European Union legislative instruments: Art 3 TEU, Art 11 TFEU, Art 37 EU Charter.

II. Sustainable Production and Value Chains. The European Regulatory Approach Between the So-Called Brussels Effect and International Standardization

The transnational nature of supply chains requires a cross-border approach since the goods or services traded in a given national market are often the result of multiple economic exchanges involving a plurality of States, often third countries with respect to the European Union. The phenomenon known as value chains is widespread and of considerable importance given that the OECD[14] notes that 70% of international trade takes place through Global Value Chains (GVCs).[15] GVCs are based on fragmented production which exploits the advantages offered by new communication technologies and reduced transport costs. However, to develop, they require open markets that do not hamper the free movement of goods, people, and capital.[16]

The pandemic[17] and wars have destabilized the economic model of value chains[18] and fuelled debate[19] on their survival or elimination. Despite the progressive emergence of protectionist norms,[20] the European Union proposes a model of value chains governance that identifies sustainability as a tool for competition

[14] The data are provided by OECD and can be consulted at https://www.oecd.org/en/topics/policy-issues/global-value-and-supply-chains.html.

[15] On the phenomenon of Global Value Chains and their relevance in world trade, see F.E. Traverso, 'Catene globali del valore: vantaggi e problemi del commercio mondiale' *Orizzonti politici*, 1 April 2021, available at https://www.orizzontipolitici.it/catene-globali-del-valore-vantaggi-e-costi/.

[16] On this point see, World Bank Group, WTO, Ide-Jetro, OECD and UIBE, *Measuring and Analyzing the Impact of GVCs on Economic Development*. *Global Value Chain Development* (Washington, DC: The World Bank, 2017).

[17] For an analysis of the effects of the pandemic on international value chains, see C. Arriola, P. Kowalski and F. van Tongeren, *Understanding Structural Effects of COVID-19 on the Global Economy: First Steps* (Paris: OECD Publishing, 2022), 21.

[18] The shocks that wars caused to production and trade are the subject of an analysis by C. Arriola, P. Kowalski and F. van Tongeren, *Shocks in a Highly Interlinked Global Economy* (Paris: OECD Publishing, 2024), 31.

[19] B. Milanovic, *Global Inequality* (Cambridge: Harvard University Press, 2016); D. Danielsen, 'Beyond Corporate Governance: Why a New Approach to the Study of Corporate Law Is Needed to Address Global Inequality and Economic Development', in U. Mattei and J.D. Haskell eds, *Research Handbook on Political Economy and Law* (Cheltenham: Edward Elgar Publishing, 2017), 195; K. Pistor, *The Code of Capital: How the Law Creates Wealth and Inequality* (Princeton: Princeton University Press, 2019), 13.

[20] On the subject, see Th. Christakis, *'European Digital Sovereignty': Successfully Navigating Between the 'Brussels Effect' and Europe's Quest for Strategic Autonomy* (Multidisciplinary Institute on Artificial Intelligence, Grenoble Alpes Data Institute, 2020), 41, available at https://ssrn.com/abstract=3748098.

and resilience, also applicable to third-country companies with significant operations in the European Union.[21]

The creation of a homogeneous regulatory ecosystem informed by European policies generates the so-called Brussels effect[22] which expands European governance beyond its borders by involving companies rooted in third countries.[23]

The aim of due diligence is the adverse human rights and environmental impacts caused by companies of significant size,[24] 'with respect to their own operations, the operations of their subsidiaries, and the operations carried out by their business partners in the chains of activities of those companies' (Art 1 CSDDD). A top-down regulatory approach[25] imposes obligations on companies, introduces specific responsibilities, and attributes powers of oversight to public authorities. The European legislator also requires companies to adopt a transition plan for climate change mitigation,[26] making explicit the mandatory nature of the Paris Agreement which, being a programme that binds the governments of various states, takes on the value of a shared commitment also with private actors.[27]

The European path to corporate sustainability due diligence is, however, only apparently the result of choices made autonomously in Brussels because the role assigned to uniform standards and the guiding principles developed at international level is significant in the CSDDD. The identification of adverse impacts and the methods

[21] Recital 29 CSDDD.

[22] A. Bradford, *The Brussels Effect: How the European Union Rules the World* (Oxford-New York: Oxford University Press, 2020), 15 and M. Di Donato, 'The Brussels Effect of the European Union's External Action: Promoting Rule of Law Abroad through Sanctions and Conditionality' *The Italian Law Journal*, 91, 105 (2022).

[23] On this topic, see the possible interactions between the Brussels effect of the CSDDD and Delaware Corporate Law analysed by W.J. Moon, 'The Brussels Effect and the Extraterritoriality of Delaware Corporate Law' 35 *European Business Law Review*, 367-382 (2024).

[24] As established by Art 2, the CSDDD binds large undertakings established in the European Union or undertakings established in third countries which 'generated a net turnover of more than EUR 450 000 000 in the Union in the financial year preceding the last financial year'.

[25] The choice to regulate supply chain due diligence was motivated by the failure of forms of self-regulation by European companies. See European Commission, n 7 above.

[26] See Art 1, letter (c) CSDDD which introduces 'the obligation for companies to adopt and put into effect a transition plan for climate change mitigation which aims to ensure, through best efforts, compatibility of the business model and of the strategy of the company with the transition to a sustainable economy and with the limiting of global warming to 1.5 °C in line with the Paris Agreement'.

[27] On the topic, see N. Bueno, N. Bernaz, G. Holly and O. Martin-Ortega, 'The EU Directive on Corporate Sustainability Due Diligence (CSDDD): The Final Political Compromise' *Business and Human Rights Journal*, 2 (2024).

of developing climate change mitigation plans depend to a large extent on the implementation of best practices adopted at a global level. Furthermore, these are based on uniform rules devised by international trade. The top-down approach of the CSDDD is, therefore, characterized by the broad use of soft law techniques which make European legislation flexible and open to the contribution of non-state sources which can be included in the phenomenon of the so-called new *lex mercatoria*.[28]

This is made explicit in Recital 14 CSDDD, which states that it is a priority to strengthen 'the Union's commitment to actively promote the global implementation of the UN Guiding Principles and other relevant international guidelines such as the MNE Guidelines, including by advancing relevant due diligence standards'.

From a content point of view, the Directive is therefore based on guiding principles developed by the UN and the Organization for Economic Cooperation and Development (OECD), thus proving to be a regulatory instrument aimed at aligning European companies with standards adopted in international trade. The CSDDD can therefore be conceived as an instrument of internal harmonization within its own market, but also, and perhaps above all, as an instrument of alignment with an international system in which the UN and OECD have already worked to identify the duties and responsibilities of companies.[29]

The CSDDD confirms a legislative policy trend already adopted in the Corporate Sustainability Reporting Standard Directive (CSRD)[30] which introduced 'sustainability reporting' based on the

[28] On the subject, see G. Alpa, 'Le "fonti" del diritto civile: policentrismo normativo e controllo sociale', in *Il diritto civile oggi. Compiti scientifici e didattici del civilista* (Napoli: Edizioni Scientifiche Italiane, 2006), 107-157; F. Criscuolo, *Autonomia negoziale e autonomia contrattuale* (Napoli: Edizioni Scientifiche Italiane, 2008), 5.

[29] Significantly, many contents or approaches of the CSDDD are based on international standards. Consider, for example, the six approaches to corporate responsibility adopted by the OECD in the Due Diligence Guidance for Responsible Business Conduct, which have been adopted and re-proposed by Art 4, letters (a), (b), and (f), Art 8, letters (c) and (d), and Arts 9 and 11 CSDDD. See OECD, *OECD Due Diligence Guidance for Responsible Business Conduct* (2018), 20-35, available at https://mneguidelines.oecd.org/due-diligence-guidance-for-responsible-business-conduct.htm. For a comparative perspective on the implementation of international standards in the United States and the European Union, see M. Morros Bo and S. Garrido Vallespí, 'Human Rights Due Diligence in the United States and the EU: Differences, Tends, and a Corporate and Dispute Resolution Critique' *ESADE Law Review*, 62 (2024).

[30] This is the European Parliament and Council Directive 2022/2464/EU, which modifies the non-financial reporting regime, with an extension of the responsibility of companies in terms of sustainable economy. On the subject, see N. Bueno and C. Bright,

'double materiality' of sustainability. This refers to 'financial materiality', expressed by the business model that the company adopts to pursue ESG objectives, and 'impact materiality' of the business activity on the environment and, more generally, on the local community in which it operates.[31] The European Sustainability Reporting Standards,[32] the Forced Labour Regulation,[33] and the EU Regulation on Deforestation-Free Products (EUDR)[34] are regulatory acts that impose duties and obligations on companies in their GVCs. The contents of these are the result of efforts that go beyond the borders of Europe, involving third countries. It follows that the so-called 'Brussels effect' is more apparent than real, given that standardization is mainly conducted by non-EU organizations and, in any case, by those who do not express exclusively European demands. However, undoubtedly, having adopted a specific set of rules dedicated to corporate liability for failure to comply with due diligence and making these rules mandatory (Art 29, para 7 CSDDD) indicates that many of the problems that arise from the transnational nature of GVCs have been overcome.[35]

III. Harmonization as a Possible Tool for Reducing the Scope of Protection

The problematic harmonization of due diligence in legal systems such as the Italian one emerges in a complex article on the topic of the level of harmonization.

'Implementing Human Rights Due Diligence through Corporate Civil Liability' 69 *International & Comparative Law Quarterly*, 789-818 (2020).

[31] On the subject, see J. Carungu, 'Evoluzione della standardizzazione contabile', in J. Carungu and M. Molinari eds, *Analisi e linee evolutive degli standard di rendicontazione finanziaria* (Milano: Wolters Kluwer, CEDAM, 2023), 10.

[32] The drafting of the European Sustainability Reporting Standards was entrusted to EFRAG. This led to the adoption of Commission Delegated Regulation 2023/2772/EU of 31 July 2023 supplementing Directive 2013/34/EU of the European Parliament and of the Council as regards sustainability reporting standards.

[33] Approved by the European Parliament on 23 April 2024, this regulation applies to every company and every type of market by introducing the prohibition of the use of forced labour in the company's value chain. The United States has also intervened to combat this phenomenon by adopting the Uyghur Forced Labor Prevention Act, applicable to trade relations between the US and China.

[34] The EU Regulation on Deforestation-Free Products came into force on 29 June 2023 and has a broad scope of application, including cocoa, palm oil, soybean and paper production.

[35] In this sense, see S. Koos, 'Civil Law, Conflict of Laws, and Extraterritoriality in the European Supply Chain Due Diligence Law' 10 *Hasanuddin Law Review*, 144-170 (2024).

The adoption of the Directive cannot lead to a lowering of the level of protection of human rights, or of employment, social, environmental and climate rights, which cannot be lower than the protection already provided for in the legislation of a given Member State or ensured by collective agreements. In implementing the Directive, each Member State must respect the definitions given in Art 3, including those relative to the impact on human rights, without prejudice to its application which must be uniform within the markets affected by the Directive. Harmonization therefore passes through a series of Euro-unitary notions of impact on human rights that States must respect. However, these notions, however, in the Italian State cannot be preclusive.

In a complex provision that seeks to respect the Union's regulatory competences while avoiding encroaching on areas traditionally attributed to the States, Art 4 provides that 'Member States shall not introduce, in their national law, provisions within the field covered by this Directive laying down human rights and environmental due diligence obligations diverging from those laid down in Article 8(1) and (2), Article 10(1) and Article 11(1)'. It is clear from this provision that the 'hard core' of the Directive is a set of rules, with which domestic legislation must then comply. In each State it is necessary to ensure that companies 'identifying and assessing actual and potential adverse impacts' should 'take appropriate measures to map their own operations' and 'carry out an in-depth assessment of their own operations, those of their subsidiaries and, where related to their chains of activities, those of their business partners, in the areas where adverse impacts were identified to be most likely to occur and most severe'. Art 10, para 1 is also exempt from full legislative discretion, meaning that in any Member State the companies to which the Directive applies must 'take appropriate measures to prevent, or where prevention is not possible or not immediately possible, adequately mitigate, potential adverse impacts'. Equally 'compliant' is the part of the Directive governed by Art 11, para 1, which requires companies to 'bring actual adverse impacts to an end'.

Given these indications, which are mandatory for the States, the concrete level of protection can be adjusted upwards by the individual States as demonstrated by the CSDDD in the complex system of liability outlined in Art 29. Not by chance, the article does not preclude the application of the rules specific to each legal system in terms of civil liability. According to Art 4, para 2, Member States

may adopt 'more stringent provisions'[36] or 'provisions that are more specific in terms of the objective or the field covered, in order to achieve a different level of protection of human, employment and social rights, the environment or the climate'. In essence, harmonization restricts the purposes of the protection intervention to those set out in the Directive both in the group of rules which constitute its founding part and in the purposes which establish its aim. In this sense, the level of protection, although adjustable upwards, has a scope and a range limited by the higher demands of harmonization on which an agreement was reached with some difficulty.

Combining the level of protection with the needs of harmonization is not easy because at the same time the European legislator must ensure a level playing field for companies in the internal market while avoiding the choices of national States regarding the levels of protection converging in a framework that is as little fragmented as possible. On this delicate issue, the Directive provides for a possible change that could be introduced in 2030 during the review of the legislation.[37] Upward protection therefore remains difficult because this Directive must also comply with Art 114 TFEU. Member States may adopt different rules aimed at extending protection, but always in compliance with Art 114 TFEU, which gives the Commission the power to monitor the validity of the protection measure. This provision then allows the Commission or any other Member State to bring an action before the Court of Justice alleging abusive use of the derogation from harmonization. The protection of the environment and health may lead a Member State to adopt derogating measures if duly supported by scientific evidence, but the Commission retains the power to reject these measures 'whether they are a means of arbitrary discrimination or a disguised restriction on trade between Member States and whether they shall constitute an obstacle to the functioning of the internal market' (Art 114, para 6 TFEU).

[36] Some Member States, including Germany and France, already have specific sustainability due diligence regulations in place. The German regulatory experience is the subject of interesting studies that highlight how regulation has influenced the relationship between companies and stakeholders. On this subject, see L. Buttke, S. Schötteler, S. Seuring and F. Ebinger, 'The German Supply Chain Due Diligence Act: Impacts on Sustainable Supply Chain Management from a Stakeholder Perspective' 29 *Supply Chain Management*, 909-925 (2024).

[37] See Art 36, letter (g) CSDDD. For an analysis of the '*Loi de Vigilance*' and the German Supply Chain Due Diligence Act of 2021 ('Lieferkettensorgfaltspflichtengesetz' LkSG) and for a comparison with the CSDDD, see S. Koos, n 35 above, 144.

IV. The Significant Role of Codes of Conduct

When looked at closely, the framework of obligations and responsibilities imposed by the CSDDD remains highly generic. It is grounded in the concept of 'due diligence', a general principle whose specific content can be determined case by case, based on the decisions made by each individual company. Art 5 CSDDD does not define what due diligence consists of, limiting itself to imposing that 'companies conduct risk-based human rights and environmental due diligence'. The rules and principles 'to be followed throughout the company and its subsidiaries, and the company's direct or indirect business partners' are described in a code of conduct, which represents an essential regulatory instrument.

Therefore, if formally due diligence is a duty imposed with top-down policies, from a substantial point of view it will be the individual company with its subsidiaries and partners to concretely establish what the 'adverse impacts' are and how to manage the risk related to them. On a substantial level, the supply chain is governed by the choices made by the companies that operate within it: it is therefore self-regulated sustainability. The code of conduct is a regulatory tool widely used by the European Union because it allows for a flexible alignment of top-down policies with market self-governance needs. Furthermore, its regulatory reference gives the self-regulation contained therein significant legal value and effectiveness.

As established by Art 7, letter (c) CSDDD, the verification of due diligence compliance will have as a reference point the rules and obligations of due diligence described in the code of conduct.[38] According to Art 10 CSDDD, the company will have to add specific clauses to the contracts stipulated with direct commercial partners. With these, the partners will guarantee adherence to the code of conduct.[39] If small and medium-sized enterprises operate in the supply chain and compliance with the code of conduct is economically unsustainable, the company should provide targeted support to ensure that this type of partner also complies with the

[38] In Italy, the compliance system is linked to the concept of 'adequate assets' that companies are required to have. On the subject, see P. Sanfilippo, 'Tutela dell'ambiente e "assetti adeguati" dell'impresa: compliance, autonomia ed enforcement' *Rivista di diritto civile*, 993 (2022).

[39] The CSDDD provides for the adoption of 'guidance about voluntary model contractual clauses' (Art 18). This is a very important form of support within the current contractual forms, as it will facilitate potentially justified termination of the contract based on the violation of due diligence.

due diligence described in the code of conduct.[40] According to Art 8, para 4 CSDDD, in the event of 'potential adverse impacts that could not be prevented or adequately mitigated by the appropriate measures the company may seek contractual assurances from an indirect business partner, with a view to achieving compliance with the company's code of conduct or a prevention action plan'. Effective compliance with due diligence therefore revolves around the code of conduct, but also the ability/willingness of companies to invest in their contractual supply chain. The CSDDD, in fact, assigns a significant role to verification by independent third parties with experience and expertise in environmental or human rights matters regarding the full implementation of the due diligence obligations assumed in the code of conduct.[41]

The importance of the code of conduct as a tool that defines the rules of due diligence and identifies the obligations that companies operating in the supply chain are required to comply with mitigates the top-down nature of legislation. Despite the cogency of the due diligence duties, the concrete implementation of the Directive is entrusted to a self-regulation tool whose content can be developed autonomously by the company.

Each company's code of conduct, explained and discussed with the company's workers and shareholders, will contain rules and principles that will be binding on the company throughout its supply chain, including its direct or indirect business partners. The code is the source that actually specifies and outlines the due diligence of the company and its supply chain, making the European regulatory approach significantly hybrid: it is, in fact, conceivable as a mix of Union and national rules whose content is supplemented by the rules resulting from the self-regulation of companies subject to due diligence obligations.

The code of conduct is also a key tool for informing and sharing company policies with stakeholders,[42] who have notification rights

[40] Recital 46 CSDDD.

[41] Art 20 CSDDD.

[42] According to Art 1, letter (n) this includes employees, trade unions, 'national human rights and environmental institutions, civil society organizations whose purposes include the protection of the environment' and, more generally, any subject 'whose rights or interests are or could be affected by the products, services and operations of the company'. The Code of Conduct as a tool 'to safeguard the interests of all stakeholders' and 'balance the conflicting interest of the stakeholders' is widely used in the Indian Corporate Law (see Companies Act 2013). For a comparative analysis of legal tools adopted in several jurisdictions of the Global South, such as India, Brazil, South Africa, to enhance the corporate social responsibility with particular attention to the protection of human rights, see M. Pargendler, 'Corporate Law in the Global South: Heterodox

and complaint powers that make the due diligence commitments undertaken by the company efficient.

The due diligence obligations are part of a sustainability transparency process sealed by the Regulation on Sustainability-Related Disclosures in the Financial Services Sector (SFDR),[43] and aimed at by the Proposal for a Green Claims Directive[44] and by the Proposal for a Directive as regards empowering consumers for the green transition through better protection against unfair practices and better information.[45]

In this sense, the adoption of standards on due diligence and sustainability reporting prepares the ground for launching a reform of remedies.[46] Such a reform would take into account the standardization carried out at an international level,[47] as GCVs transcend European borders and involve third countries.[48]

In this scenario characterized by sustainability becoming a duty for companies, it is important to ask about the nature of the due diligence obligations contained in codes of conduct, the latter referring to internationally recognized standards.

The code of conduct is developed by the company in a participatory and communication process that involves a broad and

Stakeholderism' *European Corporate Governance Institute Law Working Paper no 718/2023*, 1 (2023).

[43] This is the European Parliament and Council Regulation 2019/2088/EU of 27 November 2019 on sustainability-related disclosures in the financial services sector [2019] OJ L317/1.

[44] European Parliament and Council Proposal for a Directive on substantiation and communication of explicit environmental claims and environmental labels (Green Claims Directive) COM(2023) 166 final. The text is available in the document published by the Council of the European Union, Brussels, 17 June 2024 (OR. en), 11312/24.

[45] European Parliament and Council Proposal for a Directive amending Directives 2005/29/EC and 2011/83/EU as regards empowering consumers for the green transition through better protection against unfair practices and better information COM(2022) 143 final.

[46] For an examination of the concept of remedy, see F. Piraino, 'La categoria del rimedio nel sistema del diritto civile a partire dagli studi di Enrico Gabrielli' *Giurisprudenza italiana*, 212-244 (2024).

[47] The UN Guiding Principles on Business and Human Rights and the OECD Guidelines for Multinational Enterprises are the reference points of European standardization.

[48] Pushing due diligence outside its borders is not easy, as demonstrated by the French experience in the case of importing soy produced in Brazil. The largest soy importing groups preferred to abandon Brazil rather than invest in ensuring that Brazilian production was respectful of the environment and human rights. On this subject, see the in-depth study by M.G. Bastos Lima and A. Schilling-Vacaflor, 'Supply Chain Divergence Challenges a "Brussels Effect" from Europe's Human Rights and Environmental Due Diligence Laws' 15 *Global Policy*, 268 (2024).

complex category of stakeholders.[49] It is designed to include those 'whose rights or interests are or could be affected by the products, services and operations of the company, its subsidiaries and its business partners'.

It presents itself as a contractual act, a source of duties and obligations that the company is required to respect by virtue of a principle of solidarity which informs its operations. This is one of the most significant profiles of the UN's 2030 Agenda which, especially in systems characterized by liberalism, has sparked profound debate on the transformation of the statute of the company.[50] The logic of profit is now accompanied by a new one:[51] the logic of the impact that economic activity has on the environment, animals, climate and, more generally, on human rights.

The Directive's reference to codes of conduct and the possibility for companies to invoke uniform rules drawn up by trade organizations have been subject to ample criticism.[52] It questioned the level of democracy of the standards referred to and the degree of accountability of the organizations that develop them,[53] especially whenever standardization comes from non-state entities.[54]

Therefore, the standardization of due diligence presents a challenge when integrating uniform rules within the hierarchy of

[49] The notion of stakeholder is contained in Art 3, para 1, letter (n) CSDDD. Stakeholders 'are company's employees, the employees of its subsidiaries, trade unions and workers' representatives, consumers and other individuals, groupings, communities or entities whose rights or interests are or could be affected by the products, services and operations of the company, its subsidiaries and its business partners, including the employees of the company's business partners and their trade unions and workers' representatives, national human rights and environmental institutions, civil society organizations whose purposes include the protection of the environment, and the legitimate representatives of those individuals, groupings, communities or entities'.

[50] On the subject, see R. Rolli, *L'impatto dei fattori ESG sull'impresa. Modelli di governance e nuove responsabilità* (Bologna: Il Mulino, 2020), 35 and P. Montalenti, 'Impresa, sostenibilità e fattori ESG: profili generali' *Giurisprudenza italiana*, 1190 (2024).

[51] See U. Tombari, 'Lo "scopo della società": significati e problemi di una categoria giuridica' *Rivista delle società*, 338 (2023).

[52] The importance of having shared and measurable standards is highlighted in S. Landini, 'Clausole di sostenibilità nei contratti tra privati. Problemi e riflessioni' *Diritto pubblico*, 360 (2015).

[53] On the subject, see M. Rajavuori, A. Savaresi and H. van Asselt, 'Mandatory Due Diligence Laws and Climate Change Litigation: Bridging the Corporate Climate Accountability Gap?' 17 *Regulation & Governance*, 944-953 (2023).

[54] On this subject, see the considerations developed for the agri-food sector by F. Albisinni, 'Comparazione, Soft Law e Hybritization', in L. Costato and F. Albisinni eds, *Trattato breve di diritto agrario italiano e dell'Unione europea* (Padova: CEDAM, 4th ed, 2023), I, 68.

legal sources.[55] It is essential to consider whether the references made in Directives or other Euro-unitary regulatory instruments establish binding parameters that judges must observe.[56] The combination of top-down and bottom-up approaches opens up new frontiers for legal interpretation. A standard legitimately invoked by the parties, because it aligns with European Union rules, could serve as a basis for granting financing, assessing compliance with due diligence, and even establishing grounds for liability in judicial proceedings.[57]

V. Code of Conduct and Corporate Responsibility. Due Diligence as a Source of Obligations of Means. The Relationship Between Due Diligence, Solidarity, and Civil Responsibility. Damages Due to Omitted or Inadequate Due Diligence

Sustainability is combined with the precautionary principle,[58] which underpins every transformation, whether ecological or digital. This integration introduces evaluation parameters for potential investors in companies and for the production chains to which these companies belong. Awareness is gradually but steadily increasing regarding the impact of adopting sustainability standards on the standing of companies that commit to them. In this context of soft law, the primary challenge lies in determining the nature of the

[55] On the subject, see F. Criscuolo, *L'autodisciplina. Autonomia privata e sistema delle fonti* (Napoli: Edizioni Scientifiche Italiane, 2000), 55; U. La Porta, *Globalizzazione e diritto. Regole giuridiche e norme di legge nell'economia globale. Un saggio sulla libertà di scambio e sui suoi limiti* (Napoli: Liguori Editore, 2005), 26; R. D'Orazio, 'Codici di condotta e certificazione, sub Art. 40 Reg. Europeo 2016/679', in A. Barba and S. Pagliantini eds, *Commentario del codice Civile. Delle persone* (Torino: UTET, 2019), II, 807, 815.

[56] The 'constitutional' nature of principles contained in Directives is a matter of debate. These principles are outlined as 'constitutional', but essentially binding only on legislators, as is well observed by L.K. Weis, 'Constitutional Directive Principles' 37 *Oxford Journal of Legal Studies*, 916-945 (2017).

[57] The issue of the role of international organizations and their regulations was famously addressed in Joined Cases C-300/98 and C-392/98 *Parfums Christian Dior SA* v *TUK Consultancy BV* and *Assco Gerüste GmbH and Rob van Dijk* v *Wilhelm Layher GmbH & Co. KG and Layher BV*, Judgment of 14 December 2000, available at www.eur-lex.europa.eu. For a commentary see, among others, J. Kokott and K.-G. Schick, 'Parfums Christian Dior Sa v. Tuk Consultancy Bv, and Assco Gerüste GmbH v. Wilhelm Layher GmbH & Co. KG. Joined Cases' 95 *American Journal of International Law*, 661-666 (2001).

[58] F. De Leonardis, *Il principio di precauzione nell'amministrazione di rischio* (Milano: Giuffrè, 2005), 37; M. Renna, 'Il principio di precauzione e la sua attuabilità' *Forum di quaderni costituzionali*, 340-350 (2023).

obligations arising from sustainability, as companies must navigate a delicate balance between the mandatory nature of the principle and flexibility in its implementation.

This is made evident by point 4, para 58 of the General requirements of the Commission Delegated Regulation 2023/2772/EU containing the European Sustainability Reporting Standards. The principles adopted by the company regarding sustainability reporting, although having the aim of 'embedding due diligence in governance, strategy and business model', 'do not impose any conduct requirements in relation to due diligence; nor do they extend or modify the role of the administrative, management or supervisory bodies of the undertaking with regard to the conduct of due diligence'. Reporting would operate only on a procedural and formal level to inform investors about the measures undertaken by the company to 'identify, prevent, mitigate and account for how companies address the actual and potential negative impacts on the environment and people connected with their business'.

The legislator's distinction between procedural aspects and expected behaviours does not alter the responsibilities typically attributed to a company's governance, nor does it impose specific behavioural obligations. However, identifying the financial impacts of sustainability and the company's environmental footprint will inevitably influence its actions. To maintain its standing, the company will need to adopt appropriate strategies. Reporting is closely linked to the company's ability to embark on the path of sustainability. Once the strengths and weaknesses of the company have been identified, it will be difficult to exclude liability for inaction or insufficient action. Sustainability reporting, for example, determines the reliance of qualified third parties such as investors on a programme of actions aimed at achieving sustainability objectives, with consequences also in terms of liability for any intentional or negligent failure to comply with the programme.

Even in the CSDDD, the European legislator attempts to keep due diligence on a procedural level by classifying it as a source of obligations of means.[59] The topic is complex and deserves further investigation because, as the spread of climate change litigation shows, in many cases the prediction of an objective can give rise to forms of liability.[60]

[59] Recital 19 CSDDD.

[60] For an analysis of the intermediate obligations arising from climate protection and the identification of concurrent result obligations, see M. Carducci, 'Natura, cambiamento climatico, democrazia locale' *Diritto costituzionale*, 67-98 (2020).

To better understand this delicate passage, it is worth remembering that sustainability due diligence, even at an international level,[61] involves identifying measures aimed at preventing, ceasing or minimizing actual and potential adverse human rights and environmental impacts and, above all, monitoring and assessing the effectiveness of measures. As can be seen, due diligence consists of behaviours that companies describe as measures useful for pursuing sustainability, identified in full autonomy, but certainly binding in terms of their adoption.

The very reference to the category of obligations of means does not appear to be decisive in excluding forms of liability for omissions or inappropriate conduct. The distinction between obligations of means and obligations of result[62] is the fruit of an era in which certain categories of professionals, the so-called liberal professions, were protected due to the particular difficulties with the activities they carried out. This was developed to provide a special status to doctors, lawyers, notaries and other professionals who use their knowledge to provide services without being able to guarantee in any way that the service is able to satisfy the expectations of the patient (the recovery) or the client (the victory of the case).[63] The distinction, although old, is currently the subject of profound revision:[64] if, in fact, the obligation is based on the loyal collaboration of the debtor and the creditor, the pursuit of the creditor's purpose represents an essential obligation also for the professional of this type. It can therefore be noted that in an era in which many legal systems, such as the Italian one, have seen the decline of the distinction between obligations of means and obligations of result,[65] the use of this dichotomy seems to suggest an exemption from liability. This, however, is difficult to reconcile with the principles of solidarity and the protection of human dignity.

[61] See Guidance for Responsible Business Conduct.

[62] In this context, very relevant are the studies conducted by R. Demogue, *Traité des obligations en général* (Paris: Rousseau, 1925), V, e da L. Mengoni, 'Obbligazioni "di risultato" e obbligazioni "di mezzi" (Studio critico)' *Rivista di diritto commerciale*, I, 317-318 (1954).

[63] See the criticism of the distinction developed by E.L. Perriello, *Professione forense e responsabilità civile* (Napoli: Edizioni Scientifiche Italiane, 2023), 38.

[64] For a perspective on medical liability, see R. Franco, 'La disputa intorno alla distinzione tra obbligazioni di mezzi e di risultato si rinnova: dalla dogmatica al nesso di causalità. L'"esatto" adempimento e gli obblighi di protezione' *Rassegna di diritto civile*, 92 (2023).

[65] G. D'Amico, 'Responsabilità per inadempimento e distinzione tra obbligazioni di mezzi e di risultato' *Rivista di diritto civile*, 157 (2006).

In the obligatory relationship, diligence is not merely a formal criterion to determine whether a required behaviour has been followed. Rather, it is a 'substantial' parameter to evaluate the extent to which the required behaviour has been adopted.[66] The risk that the formally carried out due diligence does not lead to results therefore falls on the company's stakeholders, but they can still demonstrate that the company, despite having carried out an impact assessment, has not then adopted adequate measures. In other words, impact assessment – whether aimed at mitigating negative effects or enhancing positive ones of business activities – is a mandatory process for companies subject to the CSDDD. This process must be formally ensured and is not exempt from oversight. As a result, it can still serve as a potential source of liability under the civil liability rules established by each legal system.[67]

The following is a very delicate passage: the independent and voluntary projection of behaviours aimed at achieving sustainability objectives, as outlined in codes of conduct, does not mean that such projections can automatically be invoked as a justifiable exemption from liability in the event of damage.[68]

The topic is highly complex and common to many regulatory instruments in which liability is based on a risk assessment such as, for example, the General Data Protection Act and the AI Act.[69] Compliance with sustainability guidelines voluntarily adopted by companies does not necessarily exempt them from liability. Even if such measures are in place, any resulting damage is still subject to the general rules based on the principle of *neminem laedere*, as enforced by each national legal system.[70] We are therefore witnessing a sort of categorization of the steps of corporate

[66] S. Rodotà, 'Diligenza (diritto civile)' *Enciclopedia del diritto* (Milano: Giuffrè, 1964), 542.

[67] On the causal link in its various meanings, see P. Speziani, 'Il nesso causale nell'evoluzione degli orientamenti della giurisprudenza di legittimità sull'inadempimento delle obbligazioni. Le ragioni per ravvivare il "dialogo" con Cesare Massimo Bianca', in M. Bianca ed, *La responsabilità. Principi e funzioni* (Milano: Wolters Kluwer, CEDAM, 2023), 327.

[68] On the subject, see F. Laus, 'Corporate Sustainability Due Diligence e amministrazione del rischio' *Le società*, 942 (2024).

[69] See S. Koos, n 35 above, 159. On the liability based on risk management used in the AI ACT, see M.L. Gambini, 'Nuovi paradigmi della responsabilità civile per l'Intelligenza artificiale' *Rassegna di diritto civile*, 1292 (2023).

[70] Art 29, para 6 of the Directive, in fact, expressly establishes that 'the civil liability rules under this Directive shall not limit companies' liability under Union or national legal systems and shall be without prejudice to Union or national rules on civil liability related to adverse human rights impacts or to adverse environmental impacts that provide for liability in situations not covered by or providing for stricter liability than this Directive'.

sustainability, understood as a mandatory goal to be achieved, but never as a certain cause for exclusion from liability. It is no coincidence that, in such a scenario, a different distinction has been proposed. This distinction is no longer based on the debtor, but rather on the performance: obligations would therefore be discernible as 'governable' and 'non-governable' depending on whether they involve objectively realizable aspects that can serve as both a possible object of a promise and a possible source of liability in the event of non-fulfilment.[71]

When the supply chain involves companies rooted in third countries, the application of due diligence becomes truly delicate, as demonstrated by the Volkswagen case,[72] and with significant consequences. In the Volkswagen case, the employment of workers from the Uyghur minority at a Chinese plant resulted in significant repercussions for the company. These included investment restrictions and the blockage by U.S. customs of thousands of cars produced in China, due to violations of the Uyghur Forced Labor Prevention Act of 2021. The CSDDD prescribes various forms of liability for companies that fail to comply with due diligence: they range from a fine to a public statement indicating the company responsible for the infringement and the nature of the infringement (Art 29 CSDDD).[73]

Sustainability can only be concretely achieved incompliance with the principle of solidarity. Actions taken to enhance a company's sustainability or mitigate its negative impacts are part of the company's duties of solidarity toward the community. However, even if the effectiveness of these measures is uncertain, they can certainly not absolve the company of liability for any damages it may cause.

The damage related to due diligence goes beyond environmental harm to include any potential damage to legally protected interests, fully aligned with sustainability objectives that encompass not only the environment but also, more broadly, fundamental human rights.[74]

[71] G. Sicchiero, 'Dalle "obbligazioni di mezzo e di risultato" alle "obbligazioni governabili e non governabili"' *Contratto e impresa*, 1391, 1420-1421 (2016).

[72] The issue is particularly complex as in the Volkswagen case, where the company was held responsible for the use of forced Uyghur minority labour in China and was consequently blocked.

[73] On the concerns about the effectiveness of sanctions of this type, see M.G. Bastos Lima and A. Schilling-Vacaflor, n 48 above, 260.

[74] Recital 24 CSDDD.

To fulfil due diligence, the company must adopt measures that can improve sustainability by intervening not only in behaviour that causes harm to the environment or human rights, but also in behaviour that can contribute to determining the harm. Hence the adoption of a concept of causal link that also includes facts such as the influence on one's own supply chain to ensure that it adopts such measures that eliminate or, in any case, mitigate the risk of harm.[75] Although the Directive does not include specific provisions on civil liability, it raises important questions about the consequences of failing to implement due diligence, particularly regarding damages that proper adherence could have prevented or mitigated.[76] On this point, the debate that preceded the adoption of the Directive was intense.

The Directive limits the chain of compensation for damages only to those that are a direct and foreseeable consequence of the failure to carry out due diligence. For example, if harm causes a person to experience financial difficulty that prevents them from regularly fulfilling obligations contracted with a third party (a landlord, a tenant or a borrower), the indirectly caused damage is not compensable and the third party may not take legal action as an injured party.[77]

In Art 29, specifically dedicated to civil liability for damages caused by an intentional or negligent omission of due diligence, the legislator takes care to exclude any form of overcompensation for the damages suffered, be they punitive or multiple damages. This provision highlights the compromising nature of the Directive: the typification of due diligence could open the way to the application of national rules on compensation for damages which in some countries, precisely because of the general nature of *neminem laedere* and the value-based foundation of the protection of the person, have led to an open interpretation of the unlawful act accompanied by a multifunctional conception of liability.[78]

[75] Recitals 45 and 53 CSDDD.

[76] It is about finding the causal link by evaluating the due diligence carried out in the supply chain. In obligations of means, the creditor has the burden of proving that the debtor has not taken adequate diligence to achieve the purposes of the obligation.

[77] Recital 79 CSDDD.

[78] On the multifunctional nature of civil liability, see P. Perlingieri, *Il diritto civile nella legalità costituzionale. Attività e responsabilità* (Napoli: Edizioni Scientifiche Italiane, 2020), IV, 326.

VI. The Impact on Human Rights. The Problem of the Level of Protection in the Italian Legal System

The CSDDD contributes to the transformation of the markets of individual Member States into environments where corporate finance and economic initiative are permeated by the achievement of ESG objectives. Indeed, it is part of a sequence of actions that are progressively transforming the European commercial area, orienting it towards green policies and forms of just transition.

It is an approach that marks a legislative paradigm shift that aims to ensure a more effective[79] pursuit of sustainability objectives: with the CSDDD, the European Union seems to acknowledge that rigid compliance rules do not always generate the expected impact, while bottom-up approaches could be more effective.[80] The legislative strategy adopted with the CSDDD values collaboration within the chain of activities: in other words, it seeks to encourage consultation between companies receiving due diligence and all operators, upstream and downstream, who interact with them.

As we have seen, the determination of due diligence measures is not totally free in the sense that it should be conducted in such a way that the measures identified are truly the result of an accurate analysis attentive to the achievement of sustainability. In their identification, companies must therefore take into account specific documents, including those at international level. These outline contents and targets regarding the protection of the environment and human rights,[81] adhering to a One Health vision[82] which considers the well-being of people and animals and the protection of the environment and ecosystems as a whole.[83]

The CSDDD, originally intended to be applied to the entire value chain, is applicable in its final version to a much smaller part of the value chain which essentially coincides with the supply chain only. This is a significant reduction in due diligence work that excludes the downstream part, the one that links the supply chain to the final

[79] On the concept of effectiveness, see G. Vettori, 'Effettività delle tutele (diritto civile)' *Enciclopedia del diritto* (Milano: Giuffrè, 2017), 281.

[80] H.-J. de Kluiver, 'Towards a Framework for Effective Regulatory Supervision of Sustainability Governance in Accordance with the EU CSDD Directive. A Comparative Study' 20 *European Company and Financial Law Review*, 203-239 (2023).

[81] For example 'The corporate responsibility to respect human rights', cited in Recital 37 CSDDD.

[82] M.A. Sandulli, 'Introduzione. Reflections on the One Health approach in light of recent changes to the constitutional provision', in F. Aperio Bella ed, *One Health: la tutela della salute oltre i confini nazionali e disciplinari* (Napoli: Editoriale Scientifica, 2022), 21.

[83] Recital 35 CSDDD.

consumer. Undoubtedly, it is a European failure in the adoption of Goal no 12 dedicated to sustainable production and consumption because it does not allow the final consumer to be able to impact compliance with due diligence. However, at a national level, it does not seem to exclude the use of forms of protection offered to the consumer by other regulatory instruments.

The due diligence control system remains entrusted to market surveillance authorities[84] and the interaction between businesses and stakeholders,[85] the bearers of interests linked to compliance with due diligence. However, it does not allow for widespread control and does not determine a direct connection between the final user/consumer and companies in the production chain.

Violation of human rights or their non-respect deserves a broader and more effective range of remedies.[86] In this sense, one of the knots still to be untied in the supply chains is the low monetary value given to people. An example of this is the agreement reached after the Rana Plaza tragedy. It led to compensation by most of the textile companies that employed the 1,338 people who died in Dhaka when the building in which they worked collapsed. Under the Convention drawn up under the auspices of the ILO, the victims of Rana Plaza benefited from compensation from the companies that profited from their work. However, the wage base on which the compensation was calculated was low and not in line with the standards of the economies in which the leading textile companies operate, and the compensation excluded damages for pain and suffering, with a downward assessment of personal injury.

The CSDDD leads us to explore new ways of protecting individuals. This can be done through tools that impose certain forms of responsibility on those who use a value chain. These favour prevention in light of international case studies that demonstrate how valuable prevention measures are. Consider the Shell/Nigeria

[84] Art 28 CSDDD foresees a European Network of Supervisory Authorities.

[85] On the subject, see F. Denozza, 'Due concetti di stakeholderism', in M. Callegari, S.A. Cerrato and E.R. Desana eds, *Governance e mercati. Studi in onore di Paolo Montalenti* (Torino: Giappichelli, 2022), 78.

[86] The right remedy is the subject of much debate in Italy. P. Perlingieri, 'Il "giusto rimedio" nel diritto civile' *Il giusto processo civile*, 1-23 (2011); E. Navarretta, 'Diritti inviolabili e responsabilità civile' *Enciclopedia del diritto* (Milano: Giuffrè, 2014), VII, 375; A. Di Majo, 'Rimedi e dintorni' *Europa e diritto privato*, 703-741 (2015); P. Grossi, 'Dalle "clausole" ai "principi": a proposito dell'interpretazione come invenzione' *Giustizia civile*, 5 (2017) and G. Vettori, 'Il diritto ad un rimedio effettivo nel diritto privato europeo' *Rivista di diritto civile*, 666-694 (2017).

case in this regard.[87] The compensation paid by Shell to Nigerian farmers for damage caused by the oil spill has been modest and the result of complex and lengthy processes, while the obligation to instal a monitoring system for oil pipelines capable of promptly reporting leaks has proven much more effective.[88] The compensatory route is not the ideal path even with regard to damage to the environment and the climate[89] caused by companies because it very often leads to crushing liability,[90] the bankruptcy of the company concerned, and, ultimately, the absence of effective compensation.[91] However, the same difficulties persist in this context, mirroring those already highlighted in the areas of environmental and climate protection, where European remedies continue to be unsatisfactory.[92]

In transition law, the transformative nature of the rules requires a rethinking of the categories of interest in acting[93] and more

[87] The case is described at the following link https://www.reuters.com/article/business/environmentalists-farmers-win-dutch-court-case-over-shell-nigeria-spills-idUSKBN29Y1LH/. For an analysis of the complex controversy, see S.M. Bartman and C. De Groot, 'The Shell Nigeria Judgments by the Court of Appeal of the Hague, a Breakthrough in the Field of International Environmental Damage? UK Law and Dutch Law on Parental Liability Compared' 18 *European Company Law*, 97-105 (2021).

[88] In this sense, see H.-J. de Kluiver, n 80 above, 213.

[89] On the forms of protection and responsibilities linked to the right to climate, see M.C. Zarro, *Danno da cambiamento climatico e funzione sociale della responsabilità civile* (Napoli: Edizioni Scientifiche Italiane, 2022), 77. For an examination of the possible forms of protection, see V. Conte, 'Per una teoria civilistica del danno climatico. Interessi non appropriativi, tecniche processuali per diritti trans-soggettivi, dimensione intergenerazionale dei diritti fondamentali' *DPCE online*, 671 (2023).

[90] In this sense, see H.-J. de Kluiver, n 80 above, 214.

[91] The *Ilva* case in Taranto is a good example of this.

[92] The complex nature of legal interests makes it necessary to explore new paths to identify appropriate forms of protection in a law that is increasingly attentive to interests held by a plurality of subjects, communities, and present and future generations. See P. Femia, 'Transsubjektive (Gegen)Rechte, oder die Notwendigkeit die Wolken in einen Sack zu fangen', in A. Fischer-Lescano, H. Franzki and J. Horst eds, *Gegenrechte. Recht jenseits des Subjekts* (Tubingen: Mohr Siebeck, 2018), 350-351.

[93] Consider the evidentiary difficulties and the costs borne by the victims. The CSDDD, like other transition regulatory instruments, in Art 29, para 3, letter (d) allows Member States to entrust 'a trade union, non-governmental human rights or environmental organization or other non-governmental organisation, and, in accordance with national law, national human rights' institutions, based in a Member State' the task 'to bring actions to enforce the rights of the alleged injured party, without prejudice to national rules of civil procedure'.

For a reflection on the system of protection of interests, see U. Mattei, 'I rimedi', in G. Alpa, M. Graziadei, A. Guarneri, U. Mattei, P. Monateri and R. Sacco eds, *La parte generale del diritto. Il diritto soggettivo* (Torino: UTET, 2001), II, 107.

generally of the procedural instruments.[94] It is a change that is also necessary in the context of sustainability due diligence. This is needed to ensure that the entire value chain, extending beyond the place where it operates, is in line with the values expressed by the European Union and the constitutions of its Member States.

Due diligence delineates the scope of applicable values, as the sustainability standard is presumed to be upheld when the rights listed in the annex of the European Parliament and Council Directive 2024/1760/EU are not violated. This Directive provides an essentially exhaustive list of existential situations deemed worthy of due diligence. In other words, we are witnessing a typification of existential aspects worthy of protection, where violations by companies can lead to forms of liability.

It is necessary to consider how constitutional systems based on personal rights can adequately and appropriately transpose the Directive. In this regard, useful reflections can be made by taking the Italian legal system as a point of observation. The Italian Constitution is characterized by a general clause for the protection of the individual, which excludes a typification of existential situations worthy of protection. Pursuant to Art 2 of the Constitution the person becomes a founding value of the constitutional system.[95] As such, the individual is protected in any form and degree regardless of a specific legislative provision of protection or a taxonomy of due diligence conduct.[96] Overcoming the typicality of individual rights[97] has, in fact, represented one of the key steps for the improvement of living conditions in Italian society thanks to the

[94] See D. Bertram, 'Judicializing Environmental Governance? The Case of Transnational Corporate Accountability' 22 *Global Environmental Politics*, 117-135 (2022). For an analysis of the topic, see D. Castagno, 'Le procès pour l'environnement et le climat en droit italien: potentialités, limites et alternatives dans un cadre de contentieux "stratégiques"' *Revue internationale de droit comparé*, 583-598 (2023). With regard to the forms of procedural protection that can be applied in cases of greenwashing, see F. Cesareo and G. Pirotta, 'Il greenwashing nella lotta al climate change. Fondamenti sostanziali giusprivatistici e tutela risarcitoria collettiva' *BioLaw Journal*, 217, 227 (2023).

[95] P. Perlingieri, 'Principio personalista, dignità umana e rapporti civili' *Annali della Società Italiana degli Studiosi del Diritto Civile*, 1 (2020).

[96] G. Perlingieri, '"Sostenibilità", ordinamento giuridico e "retorica dei diritti". A margine di un recente libro' *Il foro napoletano*, 101 (2020), according to which 'only development that has the person and social cohesion as its reference point is sustainable'.

[97] See in this regard, P. Perlingieri, *La personalità umana nell'ordinamento giuridico* (Camerino-Napoli: Edizioni Scientifiche Italiane, 1972), 175 and 183.

direct application of the constitutional provisions that contain protection of the person.[98]

In sustainability due diligence, the approach is reversed, as emerges from Art 3, para 1, letter (c) of the Directive which limits the concept of 'adverse human rights impact' to an impact on persons 'resulting from an abuse of one of the human rights listed in Part I, Section 1, of the Annex to this Directive', as those human rights are enshrined in the international instruments listed in Part I, Section 2, of the Annex to this Directive or 'an abuse of a human right not listed in Part I, Section 1, of the Annex to this Directive, but enshrined in the human rights instruments listed in Part I, Section 2, of the Annex to this Directive'. This approach entails adopting a protection model designed for optimal alignment with the international context in which supply chains operate. However, it results in a reduced level of protection, as it relies on concepts and categories that are recognizable and accepted beyond the borders of the European Union.

On closer inspection, therefore, the protection of the person is based on international regulatory standards and is limited to typical profiles (see Art 3, para 1, letters (c) and (i)) or can be deduced from a closed number of international normative acts listed in the Annex to the Directive. Harmonization, the ultimate goal of commercial legislative policies, is therefore adopted in one field – the protection of the person. Its results, however, remain problematic. Due diligence is required, but at the same time limited in its level and in the extent of its impact on the protection of the person.

VII. Concluding Remarks. The Persistence of Typifications, the Reduction of the Scope of Protection and Compensation Logics as Obstacles to the Full Protection of the Person. Due Diligence Based on Risk Assessment as an Attempt to Overcome Purely Compensatory Logics

[98] In Italian law, the issue of the direct application of principles by legal scholars is the subject of a long-standing and in-depth debate. On the subject, ibid 417; P. Rescigno, *Introduzione al Codice civile* (Roma-Bari: Laterza, 1993), 62; S. Morelli, 'L'applicazione diretta della Costituzione nei rapporti interindividuali' *Giustizia civile*, 337 (1996); G. D'Amico, 'Problemi (e limiti) dell'applicazione diretta dei principi costituzionali nei rapporti di diritto privato (in particolare nei rapporti contrattuali)' *Giustizia civile*, 443-508 (2016); E. Navarretta ed, *Costituzione, Europa e diritto privato. Effettività e Drittwirkung ripensando la complessità giuridica* (Torino: Giappichelli, 2017), 211; P. Femia, *Principi e clausole generali. Tre livelli di indistinzione* (Napoli: Edizioni Scientifiche Italiane, 2021), 30.

The analysis of the CSDDD highlights that the sustainable transition of European origin remains an expression of the regulation of the market based on the principles of competence and subsidiarity.[99] The European measures dedicated to the transition are measures that aim to approximate the legislative, regulatory, and administrative provisions of the Member States. Sustainability is therefore regulated in accordance with the proper functioning of the internal market, as established by Art 114 TFEU.

It is clear that limiting the promotion of sustainability, such as the protection of the person, the environment, and the climate, to the competitiveness of the European market means limiting the scope of the principles of dignity and solidarity[100] that are firmly rooted in European constitutional traditions.

The taxonomy of the positive or negative impacts of economic activities on human rights and the environment in the Italian legal system cannot be used to create zones free from duties to protect people and the environment.[101] This is especially true now that the environment and the protection of the interests of future generations have been expressly included in the Constitutional Charter.[102]

From this perspective, it is difficult for the protection of the person to expand because it too remains the object of harmonization and standardization. At this point, it becomes important to promote an axiological interpretation that leads back to entire national and European legal systems and their interaction[103] – the implementation of sustainability. By leveraging the values that form the basis of the Lisbon Treaty, enshrined in the Charter of

[99] For a critical reflection on the European Union's attempt to impose its own common framework of protection, beyond the principle of subsidiarity, see G. Zarra, 'Tra "Diritto privato dell'Unione europea" and "Diritto privato degli Stati europei". Riflessioni a margine di un recente colloquio' *Rassegna di diritto civile*, 192-230 (2024).

[100] On the subject, see A. Lener, 'Ecologia, persona, solidarietà: un nuovo ruolo del diritto civile', in N. Lipari ed, *Tecniche giuridiche e sviluppo della persona* (Roma-Bari: Laterza, 1974), 333-334 e P. Perlingieri, 'I diritti umani come base dello sviluppo sostenibile. Aspetti giuridici e sociologici', in Id, *La persona e i suoi diritti. Problemi del diritto civile* (Napoli: Edizioni Scientifiche Italiane, 2005), 71.

[101] On the subject, see P. Perlingieri, 'Persona, ambiente e sviluppo', in M. Pennasilico ed, *Contratto e ambiente* (Napoli: Edizioni Scientifiche Italiane, 2013), 322.

[102] The Italian Constitution was amended in 2022 with significant innovations. In Art 9 of the Constitution, 'the protection of the environment, biodiversity and ecosystems, also in the interest of future generations' was expressly provided for. The new Art 41 of the Constitution provides that economic initiative cannot be carried out in a way that causes harm 'to health, the environment, safety, freedom, human dignity'.

[103] The sectoral nature of European Union law is highlighted by P. Perlingeri, by proposing a unitary Italian-European legal system in *Diritto comunitario e legalità costituzionale* (Napoli: Edizioni Scientifiche Italiane, 1992), 35.

Fundamental Rights and expressed in the European Convention for the Protection of Human Rights, an interpretation can be provided that results in solutions aimed at expanding the protection of the individual.[104] Art 6 of the Lisbon Treaty allows for common constitutional traditions to be valued as general principles that can justify choices of high protection.

It is clear that this process is difficult to implement if there remain interpretations of the European Union legal system separate from those of the individual States and if the harmonization referred to in Art 114 TFEU continues to be applied in a strictly literal manner. Any deviation by an individual Member State from the harmonization legislation adopted at the European level is considered an exception that requires a rigorous basis and is subject to strict scrutiny. Consequently, advocating for an interpretation that prioritizes the promotion of the individual is challenging, as it would face significant hurdles in legislative procedures and in standardizations that must be authorized by the European legislator and periodically monitored by the relevant market authorities.

This approach, however, in legal systems such as the Italian one, which is characterized by a rigid Constitution centred on the protection of the person, cannot be considered in any way to preclude merit-based judgments made in light of constitutional values.[105] The typification of the parameters of violation of human rights made by the Directive is, therefore, compatible with interpretation solutions which, using constitutional values, lead to

[104] The impact of the protection of fundamental rights on private law has given rise to a broad debate on the so-called constitutionalization of private law. For all this, see S. Grundmann ed, *Constitutional Values and European Contract Law* (The Netherlands: Kluwer Law International, 2008); H. Micklitz ed, *The Constitutionalization of European Private Law* (Oxford: Oxford University Press, 2014); Ch. Mak, *Fundamental Rights in European Contract Law. A Comparison of the Impact of Fundamental Rights on Contractual Relationships in Germany, the Netherlands, Italy and England* (The Netherlands: Kluwer Law International, 2008), 1; V. Trstenjak and P. Weingerl eds, *The Influence of Human Rights and Basic Rights in Private Law* (Switzerland: Springer, 2016), 3.

[105] The European Union rules concerning the market have given rise to a broad debate in Italy with regard to the Constitution and in particular to the applicability of Art 41 of the Constitution. On the subject see N. Irti, *L'ordine giuridico del mercato* (Roma-Bari: Laterza, 1998), 28. On the subject of market limitations determined by the needs of environmental protection, see G. De Ferra, 'La responsabilità sociale dell'impresa' *Rivista delle società*, 649 (2008) and M. Libertini, 'Impresa e finalità sociali. Riflessioni sulla teoria della responsabilità sociale dell'impresa' *Rivista delle società*, 27 (2009). On the importance of a constitutional legality control of market regulation in compliance with a constitutional legality also integrated by European constitutional principles, see P. Perlingieri, 'I principi giuridici tra pregiudizio, diffidenza e conservatorismo' *Annali della Società Italiana degli Studiosi di Diritto Civile*, 13 (2017).

an extension of protection.[106] Harmonization, in this sense, does not prevent the Member State from arriving at a solution which raises the level of protection. This is in line with the current drafting of Art 3 CSDDD, but, more generally, a limitation of the level of protection of the individual would be incompatible with the current Italian constitutional framework. In this context, the exclusion of due diligence in the downstream part of the value chain may not necessarily lead to an exemption of liability of the company with regard to the activities performed downstream by its commercial partners. Liability could, in fact, remain on the basis of principles and rules that arise from the system understood as a whole. In other legislative acts of European and international origin, there is a control of the value chain as a whole. More generally, the principle of sustainable production and consumption constitutes an evaluation parameter that is also applicable in the commercial chain.

It is clear that the rules of responsibility based on the principle of solidarity continue to be applicable also for activities that are carried out in the downstream part of the activity chain. Consequently, while due diligence is limited to the upstream part, it will be difficult to exclude liability for violations of human rights, the environment, and the climate if the activity that gives rise to the damage is downstream in the supply chain.

One of the most interesting aspects of the CSDDD is the provision of measures that seek to mitigate the risk of negative impacts on people and the environment.[107] In general, in fact, the monetization of damage in value chains has often been prioritized over its prevention. The reason is essentially economic: investing in prevention, and channelling funding into risk mitigation, is a fixed and high cost. However, paying to compensate in the event of a negative impact on economic activity is a less certain occurrence whose assumption of risk is still considered more convenient.

The CSDDD therefore, promotes a business culture that requires the ex-ante evaluation of the risks that economic activity entails for human rights and for the environment. In this respect, the CSDDD is in line with the AI Act, a regulatory instrument guiding the

[106] In Italy, the protection of the individual serves as the foundation for an interpretative approach that treats patrimonial rights as instrumental to the pursuit of existential interests. See in this regard P. Perlingieri, '"Depatrimonializzazione" e diritto civile' *Rassegna di diritto civile*, 1 (1983).

[107] Risk management characterizes transition law. On the subject, see F. Laus, n 68 above, 915.

technological transition that imposes a Fundamental Rights Impact Assessment on companies (Art 27).[108]

The protection of the person requires a paradigm shift that is increasingly based on the preventive assessment[109] of the impacts that the legislation will have. However, even in the ecological and technological transition, there is a need to ask whether the standardized evaluation of the impact of the production of goods and services on the person can be considered satisfactory.[110] On the other hand, it could be considered a stage on a journey that should lead to a rethinking of harmonization rules for markets that are highly focused on the person and their rights, aspiring to a sustainable transition that is also 'just'.[111]

[108] On the subject, see A. Kriebitz and Chr. Lütge, 'Artificial Intelligence and Human Rights: A Business Ethical Assessment' 5 *Business and Human Rights Journal*, 84 (2020).

[109] G. De Gregorio, M. Fasciglione, F. Paolucci and O. Pollicino, 'Compliance through Assessing Fundamental Rights: Insights at the Intersections of the European AI Act and the Corporate Sustainability Due Diligence Directive' *Medialaws*, 30 July 2024, available at https://www.medialaws.eu/compliance-through-assessing-fundamental-rights-insights-at-the -intersections-of-the-european-ai-act-and-the-corporate-sustainability-due-diligence-directive/. Preventive protection is a strongly felt need in digital and ecological transitions based on precautionary logics. On the subject, see P. Perlingieri, n 78 above, 324.

[110] Even in international trade governed by standardization, the ethical problem posed by the protection of the individual is becoming increasingly relevant. On this subject, see I. Schwenzer and B. Leisinger, 'Ethical Values and International Sales Contracts', in R. Cranston, J. Ramberg and J. Ziegel eds, *Commercial Law Challenges in the 21st Century* (Uppsala: Iustus, 2007), 249.

[111] On the subject, see L. Sandmann et al, 'The European Green Deal and Its Translation into Action: Multilevel Governance Perspectives on Just Transition' *Energy Research and Social Science*, 3 (2024). The just transition in terms of sustainable development is the subject of recent studies based on sustainability indicators: M. Htitich, P. Krylová and J. Harmáče, 'Just Transition Score: Measuring the Relative Sustainability of Social Progress' *Environmental and Sustainability Indicators*, 1 (2024).

Green Financial Instruments: 'Ecological' Patrimoniality and 'Social' Obligatory Relationships

Adele Emilia Caterini*

Abstract

This paper analyses the recent European regulation of financial instruments related to (socio)-environmental objectives and their impact on traditional legal institutes, such as the obligation and the contract. Efforts to make obligatory legal relationships conform to ecological issues lead to establishing remuneration for investors below the market interest rate or indexed to predefined environmental sustainability results. This affects the compensatory nature of the relationship in such a way as to include utilities that are *lato sensu* of a patrimonial nature, and, therefore, have the purposes of social utility or general interest. For this reason, it can be considered a 'social' obligatory relationship as a relationship between legal situations subjectively attributable to a plurality of persons, direct beneficiaries of non-financial utilities deriving from constitutionally valued activities.

Keywords

Social Market Economy, Green Bond, Sustainability-Linked Bonds, 'Social' Obligatory Relationship.

I. Introduction

The importance of the social and relational dimension of the person through the declaration of the indispensable duties of solidarity leads to the need to rethink the market economy. It is not a mere remunerative concept based on free competition but a place for the protection of the person and of the community, also from a diachronic point of view.[1] The demands of social justice guarantee, in fact, the 'vital minimum'[2] as an inviolable space of free and

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[1] P. Perlingieri, 'Mercato, solidarietà e diritti umani' *Rassegna di diritto civile*, 1, 84-117 (1995).

[2] 'The "vital minimum" is the "essential content" of the inviolable rights of man, it is the *res cogitans* of human dignity as the nucleus of the *status personae*, where the *res*

dignified existence. In the face of the constant and dynamic interrelationship between fact and law,[3] the current socio-economic context, characterized by economic instability, political fragmentation and ecological emergency, contributes to redefining traditional legal concepts such as the obligation and the contract. The primary importance of the value of the human personality, in its transgenerational meaning, determines the functionalization of these concepts: from a purely economic and performing logic to one aimed at the maximum implementation of the person.[4]

The market is not, therefore, an aseptic reality without an axiological character but is itself an ideal space for the convergence of patrimonial and existential interests, of individual and general interests. It is a functional tool to ensure free economic initiative and, at the same time, to adapt it to the principles of public constitutional order.[5] The 'social market economy' enhances the redistribution of goods and services on the basis of social equity, overcoming *de facto* inequalities and ensuring equal accessibility to the essential levels of civil and social benefits (Art 117, para 2, letter m of the Italian Constitution) and the effective satisfaction of the person's primary needs.

In this scenario, ecologism, as a value instrumental to the realization of the value-person,[6] connotes and adapts the legal

extensa is the *status civitatis*'. E. Caterini, 'Il "minimo vitale", lo stato di necessità e il contrasto dell'esclusione sociale' *Rassegna di diritto civile*, IV, 1129, 1141 (2016).

[3] P. Perlingieri, *Il diritto civile nella legalità costituzionale secondo il sistema italo-europeo delle fonti. Fonti e interpretazione* (Napoli: Edizioni Scientifiche Italiane, 4th ed, 2020), II, 69.

[4] On the functionalization of legal institutes to the realization of human personality, see P. Perlingieri, *La personalità umana nell'ordinamento giuridico* (Napoli-Camerino: Edizioni Scientifiche Italiane, 1972), 21-22. On the other hand, some view private law from an internal perspective on the basis of Kant's *practical ratio*, understood as a concept of free will, whereas corrective justice is understood as mere corrective equivalence between loss and gain. See E.J. Weinrib, *The Idea of Private Law* (Oxford: Oxford University Press, 2012). Others hold that private law is influenced by public or collective values even if it remains independent of public policy. See H. Dagan, 'The Limited Autonomy of Private Law' (2007), available at https://ssrn.com/abstract=1005807; see also, F. Rödl, 'Private Law Beyond the Democratic Order? On the Legitimatory Problem of Private Law "Beyond the State"' 56 *The American Journal of Comparative Law*, 743 (2008); J. Gordley, 'The Moral Foundations of Private Law' 47 *American Journal of Jurisprudence*, 1 (2002).

[5] On the overcoming of the justice deficit through the constitutionalization of private law, see S. Grundmann, H.-W. Micklitz and M. Renner, *New Private Law Theory. A Pluralist Approach* (Cambridge: Cambridge University Press, 2021).

[6] According to P. Perlingieri, 'Spunti in tema di tutela dell'ambiente' *Legalità e giustizia*, 136 (1989), the personalistic choice of the Italian constitutional system configures the environment as a privileged tool for the development of the human person. In this sense, ecology, including the protection of the environment, biodiversity and

relationships, becoming an intrinsic element of economic activity as well as a criterion for the assessment of the lawfulness or merit of the same.[7] In this sense, the amended Art 41, para 2 of the Italian Constitution states: 'on the one hand, the unlawfulness of conduct harmful to health, the environment, security, freedom and human dignity; on the other hand, the non-contrast of economic initiative with social utility, as a judgment including ecological profiles'.[8] Every relationship, therefore, is coloured by environmental needs, including the legal effects of saving and of the transmission of natural resources used in the economic and productive cycle.[9] It follows that even those traditionally characterized by pre-eminent patrimonial value, such as legal obligatory relationships of a financial nature, are pervaded by socio-environmental concerns. The latter, in fact, guide the initiative of private individuals and could affect the obligatory relationship, making the same fulfilment conditional on conserving or improving environmental quality. Therefore, there is an evolution of the concept of patrimoniality referring to the nature of the performance and the interest of the creditor pursuant to Art 1174 of the Italian Civil Code[10] which, in the light of the current legal system, is intended to extend and include functions of a socio-existential nature, such as environmental protection.[11]

In this regard, the recent European Regulation on Green Bonds[12] introduces harmonised rules for financial instruments whose proceeds are allocated to environmental sustainability objectives. In

ecosystems, aims at a balance between ecological systems functional to the protection of life of existing and future biological components, primarily of the person.

[7] On the idea of an ecological public order, see N. Belaïdi, *La lutte contre les atteintes globales à l'environnement: vers un ordre public écologique?* (Brussels: Bruylant, 2008), 461.

[8] E. Caterini, 'Iniziativa economica privata e "crisi ecologica". Interpretazione anagogica e positivismo', in G. Perlingieri and E. Giorgini eds, *Diritto europeo e legalità costituzionale a trent'anni dal volume di Pietro Perlingieri. Atti dell'Incontro di Studi dell'Associazione dei Dottorati di Diritto Privato 9-10 settembre 2022, Università Politecnica delle Marche* (Napoli: Edizioni Scientifiche Italiane, 2024), 291.

[9] Art 3-*quater* of decreto legislativo 3 April 2006 no 152 (Environment Code) establishes the obligation to achieve a balance between natural resources to be saved and transmitted in order to ensure the protection and improvement of environmental conditions in the context of the dynamics of production and consumption.

[10] The Art states that 'The obligation must consist in a performance which can be economically assessed and which serves an interest of the creditor, whether or not of pecuniary nature'.

[11] E. Caterini, 'Iniziativa economica privata e "crisi ecologica"', n 8 above, 297-298.

[12] European Parliament and Council Regulation 2023/2631/EU of 22 November 2023 on European Green Bonds and optional disclosures for bonds marketed as environmentally sustainable and for sustainability-linked bonds.

the face of increased demand from savers of environmentally sustainable bonds[13] and the associated exponential increase in bond issuance,[14] a legal framework has been drawn up laying down uniform specific conditions and requirements for these green bonds.[15] Their intrinsic international nature calls for uniform rules to promote forms of financing with a positive and lasting impact on the environment, and, at the same time, to ensure clear and transparent information to investors to allow for comparisons to be made between different financial instruments and for the adoption of informed choices. The use of forms of sustainable finance needed by the climate emergency and encouraged by international and European sustainability policies requires, in accordance with the principle of horizontal subsidiarity, greater accessibility to the financial market and, therefore, a process of 'democratization' of the same. In this sense, the European Regulation provides that green bonds may be issued by non-financial undertakings and by non-corporate entities, such as sovereign issuers. Moreover, in order to favour smaller companies, 'the requirement to allocate the proceeds of European Green Bonds to environmentally sustainable economic activities should apply only to the net proceeds of such bonds', that is, 'the difference between the total bond proceeds and the issuance

[13] According to the research carried out by Forum per la Finanza Sostenibile, *PMI italiane, policrisi e finanza sostenibile: le opportunità per le imprese* (2023), 11, available at https://finanzasostenibile.it/attivita/pmi-italiane-policrisi-e-finanza-sostenibile-le-opportunita-per-le-imprese/, stakeholders' requests regarding sustainability issues are increasing considerably. It turns out that 70% of the companies interviewed have received questions on ESG policies (Environmental, Social and Governance), of which 35% by customers and 12% by private investors. Similarly, Global Sustainable Investment Alliance, *Global Sustainable Investment Review* (2022), 5, available at https://www.gsi-alliance.org/members-resources/gsir2022/, shows on a macroeconomic scale that $30.3 trillion are invested in sustainability-related assets and that even in non-US markets, as in Europe, there has been a 20% increase in this form of investment compared to 2020.

[14] In fact, 6% of bonds issued in the European Union are linked to sustainability, of which 68.6% are green bonds. Platform on Sustainable Finance, *Monitoring Capital Flows to Sustainable Investments: Intermediate Report* (April 2024), 35, available at https://finance.ec.europa.eu/publications/platform-sustainable-finance-intermediate-report-monitoring-capital-flows-sustainable-investments_en.

[15] Before the introduction of the European framework, the International Capital Market Association (ITMA) adopted *Green Bond Principles. Voluntary Process Guidelines for Issuing Green Bonds* (June 2021), 4, available at https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/green-bond-principles-gbp/, that 'are voluntary process guidelines that recommend transparency and disclosure and promote integrity in the development of the Green Bond market by clarifying the approach for issuance of a Green Bond (…) The four core components for alignment with the GBP are: 1. Use of Proceeds (for eligible Green Projects); 2. Process for Project Evaluation and Selection; 3. Management of Proceeds; 4. Reporting'.

costs that are directly related to the issuance of the bond', such as the costs of the financial intermediaries leading the issuance.[16]

The main feature of these bonds is the use of the proceeds to finance economic activities defined as environmentally sustainable by the European Taxonomy[17] and, therefore, those so-called enabling activities that contribute substantially to one or more specific environmental objectives (Art 16 Regulation 2020/852/EU), or so-called transitional activities, that contribute substantially to climate change mitigation (Art 10, para 2 Regulation 2020/852/EU).[18] Given the lasting nature of the environmental objectives, such financing may occur either in a direct form and relate to fixed tangible or fixed intangible assets, current or operational capital and operating expenditure, assets and expenditure of households, which also have a positive and lasting impact on the environment, either indirectly through subsequent financial assets, or allocated to economic activities that meet the Taxonomy requirements (Recital 12 Regulation 2023/2631/EU).

From the above considerations, it follows that the remuneration in green bonds is similar to that in conventional bonds, while the title is changed and the possible contractual provision of a revenue below the thresholds applied on the market is justified. Alongside them, there are forms of financing in which the socio-ecological utility affects more deeply the legal relationship, altering the *synallagma* of the financing contracts. The European Green Bond Regulation itself leaves a wide margin of autonomy to private initiative and provides for 'sustainability-linked bonds' 'whose financial or structural characteristics vary depending on the achievement by the issuer of predefined environmental sustainability objectives' (Art 2, no 6 Regulation 2023/2631/EU).

These financial instruments may, in fact, be characterized by the condition of the reimbursement of the capital and the payment of interest to achieve a predetermined environmental and potentially social result, presenting elements common to both bonds and

[16] Recital 14 of European Parliament and Council Regulation 2023/2631/EU.

[17] European Parliament and Council Regulation 2020/852/EU of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088.

[18] Art 5 of European Parliament and Council Regulation 2023/2631/EU provides for a margin of flexibility of 15% of the proceeds of green bonds with regard to activities that comply with the taxonomy requirements with the exception of the technical screening criteria or those in the context of international support which, however, contribute to the objectives set out in Regulation 2020/852/EU.

shares.[19] For this reason, dividends are defined as 'mixed' because they include a financial return and a social return, the latter resulting from economic activity and on which the first depends.[20] In particular, the investor bears the risk of non-performance, in terms of the loss of the sums invested and/or the interest accrued on the basis of the adequacy and effectiveness of the environmental sustainability policies predetermined in the negotiating rules and adopted in the exercise of economic activity.

II. Green Finance: Teleological Evaluation of the Pecuniary Obligatory Relationship and Indexed Investor Remuneration

The introduction of these particular financial instruments leads to some reflections on the renewed functions of the very notion of pecuniary obligations in the face of the changed legal context and, in particular, the different assessment of investor remuneration, intended to affect the relative negotiating operations.

A teleological evaluation of the obligatory relationship,[21] focused on its practical functions,[22] precludes a generic homologation of pecuniary obligations. The latter, in fact, imply different functions and interests.[23] The balance between the interests involved in the specific case varies according to their patrimonial or existential nature or the coexistence of both, that is, according to their homogeneity or heterogeneity. The first hypothesis determines the prevalence of the interest most deserving of protection in that given situation, while the second determines the primacy of existential

[19] With reference to Social Impact Bonds, it has been pointed out that the bond represents the link between the investment made and the generation of a social impact, regardless of the nature of the capital invested (debt, risk or hybrid). G. Pasi, 'Credito e innovazione sociale: l'avvento di nuovi schemi negoziali nell'amministrazione delle carceri. La direzione suggerita dai Social Impact Bond' *Rassegna economica*, 1, 207, 209 (2015).

[20] A. Del Giudice, *I Social Impact Bond* (Milano: FrancoAngeli, 2015), 12; C. Mignone, 'Terzo settore e strumenti finanziari ad impatto sociale' *Giustiziacivile.com*, 2, 9 (2014).

[21] It is understood as a relationship between complex subjective situations. Its content varies, on the one hand, according to the concrete interests and, on the other, according to the values and fundamental principles of the legal system in a given social context. P. Perlingieri, *Le obbligazioni: tra vecchi e nuovi dogmi* (Napoli: Edizioni Scientifiche Italiane, 1990), 31-32.

[22] P. Perlingieri, *Il diritto civile nella legalità costituzionale secondo il sistema italo-comunitario delle fonti* (Napoli: Edizioni Scientifiche Italiane, 3rd ed, 2006), 694.

[23] A. Malomo, *Risarcimento da inadempimento da obbligazione pecuniaria* (Napoli-Camerino: Edizioni Scientifiche Italiane, 2012), 84.

interests over economic ones as functional to the realization of the primary value of the human personality.

Depending on the reason for the exchange of performances of the obligatory relationship, the value of the pecuniary performance varies. The latter relates to a sum of money and, therefore, its value depends on fluctuations in the purchasing power of the currency over the course of time. For this purpose, the unit of measure of the money value acts as a criterion of determination of the object, the *rectius* of the quantity of the performance. This unit of measurement can be legal, if established by law (nominal principle), or real, if related to a certain good, such as the metal coin itself (metal value principle).[24] However, these are not mandatory principles[25] whereby the choice between the establishment of a currency or a value debt[26] arises from the function of the same obligatory relationship.[27] If, with the application of the metal value principle, the relevant value is fixed at the time of the establishment of the legal relationship, the option for the other principle shifts the determination of that value to the stage of its execution: in the first case, the risk of revaluation is borne by the debtor and the risk of devaluation is borne by the creditor; in the second case, the risks are reversed.[28] It follows that, by virtue of the constitutional choice of the primacy of the person over the stability of the markets, the balancing of the interests involved in the specific relationship may justify differentiated solutions (of currency or value) on the basis of their axiological relevance and, therefore, on their greater convenience for the creditor or debtor.[29]

[24] The inadequacy of the nominal principle and the appreciation of value in the pecuniary obligation emerge from the words of M. Semeraro, *Pagamento e forme di circolazione della moneta* (Napoli-Camerino: Edizioni Scientifiche Italiane, 2008), 116-117.

[25] Pursuant to E. Caterini, *Le obbligazioni pecuniarie nell'ordinamento italoeuropeo* (Napoli: Edizioni Scientifiche Italiane, 2022), 7-10, 27-28, 39-40, the principle of nominal value is an expression of the principle of legality according to which the law determines the unit of measurement of value and attributes the fulfilment effect to the currency whose foundation is not, however, found in the Constitution. This would be a so-called technical principle, aimed at achieving the right distribution of risks arising from fluctuations in the financial markets. In the author's opinion, the absence of a constitutional provision on the subject does not imply the constitutional irrelevance of currency but highlights its different axiological character according to the functions it realizes in the concrete pecuniary obligation.

[26] See F. Mastropaolo, 'Obbligazione. Obbligazioni pecuniarie' *Enciclopedia giuridica* (Roma: Treccani, 1990), XXI, 10.

[27] P. Perlingieri, *Le obbligazioni*, n 21 above, 39-40.

[28] E. Caterini, *Le obbligazioni pecuniarie*, n 25 above, 6-7.

[29] ibid 29-30.

With regard to the financial instruments in question, whereas green bonds borrow their structure and operation from traditional forms of investment, the functional peculiarity may justify the incorporation of particular financial characteristics affecting the obligatory legal relationship. The pursuit of general interests that go beyond the individual-speculative investor, such as, for example, the protection and restoration of biodiversity and ecosystems through the adoption of sustainable agricultural practices, inevitably affects the content of the pecuniary performance and, specifically, its value. In these hypotheses, the measurement of the value can be associated to an external parameter, like the achievement of a predetermined socio-environmental objective shared in the medium to long term: the investor's remuneration is determined on the basis of the produced positive impact compared to that planned over a specific period of time. In this way, a currency debt is converted into a value debt[30] in which the determination of the content of the performance[31] is often referred to as the fair appreciation of a third party[32] in relation to the assessment of the impact achieved by means of quantum-qualitative criteria (Art 1349 of the Italian Civil Code).[33]

[30] In accordance with the Corte di Cassazione-Sezioni unite 23 February 2023 no 5657, the financing whose amount is related to an exchange ratio is a value debt, and the relevant value-clause establishes the criterion for measuring the debtor's obligation. See, I. Martone, 'La clausola di doppia indicizzazione al vaglio della meritevolezza nel composito mosaico della finanza derivata' *Rassegna di diritto civile*, 4, 1500-1540 (2023).

[31] Following F. Pistelli, *L'indicizzazione del regolamento contrattuale* (Napoli: Editoriale Scientifica, 2023), 184, the index represents the object that becomes part of the content of the contract through indexing. The indexation clause becomes a source of determination of the content of the contract through a process consisting of two phases: in the first, the parties establish the basis for defining the determining instrument, describing the economic dimension relevant to the contract through the index (descriptive dimension); in the second, the tool is implemented, regulating the ways in which the external reality described by the index influences the determination of contractual performance (dispositive dimension).

[32] In negotiating operations such as Social Impact Bonds, this assessment is attributed to a neutral evaluator, a third and independent body whose task is to measure the outcomes achieved with the relative social impact and to determine the consequent return of investors. See C. Napolitano, 'Il social impact bond: uno strumento innovativo alla ricerca del suo diritto', in M. Francesca and C. Mignone eds, *Finanza di impatto sociale, Strumenti, interessi, scenari attuativi, Atti del convegno*, *Lecce, 17-19 maggio 2018* (Napoli: Edizioni Scientifiche Italiane, 2020).

[33] F. Criscuolo, *Arbitrato e determinazione dell'oggetto del contratto* (Napoli-Camerino: Edizioni Scientifiche Italiane, 1995), specifically 165-209, according to the author, within the scope of the definition of the object by the third party with fair appreciation talks about negotiation *per relationem* in which the case and the effects are imputable to the parts of the negotiating tool. In the latter, they have intended to devolve the specification of the object to the third party, according to the margins of discretion devolved by the parties to the same and defined by the agreement through which the role has been assigned.

The exception to currency stability is based on the high axiological character of the relationship aimed at achieving existential interests not limited to the creditor-saver but extendable to the person himself, in his relational and diachronic dimension.

These particular financial instruments could be considered a form of indexation of the obligation.[34] The latter involves the identification of the remuneration according to pre-established socio-environmental objectives, in turn linked to the performance and management of the financed economic activity. The same Art 2411, para 2 of the Italian Civil Code provides for the possibility of relating the timing and entity of the payment of interests to objective factors, also related to the economic performance of the company. In this case, however, it is important to focus on the non-economic results of the activity that depend on the adequacy of the organizational structure of the production cycle.[35]

III. The 'Anallagmatic' Nature of the Green Financing Contract and the Purpose of Distributive Justice

Both the clauses of indexation of the relationship and the fixing of the interest rate below the market rate have a structural and

[34] Indexing is an 'open structure' mechanism that is applicable to a potentially indefinite number of figures, provided that they are united by an element: the determination of the nominal value of an obligation by means of a predetermined parameter. The indexation clause is, therefore, multifunctional in that, behind the typical structure of variability, it is capable of implementing different purposes, including the allocation of resources to certain objectives or an incentive to achieve predetermined results. F. Pistelli, *L'indicizzazione del regolamento contrattuale*, n 31 above, 13, 144, 166 ('*(l)'indicizzazione costituisce un meccanismo trasversale a un numero potenzialmente indefinito di figure (c.d. a struttura aperta), accomunate da un elemento: la determinazione del valore nominale di una obbligazione per mezzo del riferimento a un parametro prestabilito'. Si evidenzia, inoltre, 'la polifunzionalità della clausola di indicizzazione la quale, dietro alla struttura tipica della variabilità, è in grado di asseverare a scopi differenti' fra cui 'l'allocazione di risorse verso determinati obiettivi o incentivo al raggiungimento di prefissati risultati*').

[35] In this respect, it has been noted that qualitative indices are increasingly widespread. This practice stems from the progressive development of instruments for measuring macroeconomic variables that do not merely take into account the development of the 'dimensional' parameters of economic growth, such as price fluctuation, but also those of the 'direction' of growth, ibid 163 ('*sempre più diffusi sono gli indici di natura qualitativa. Questa prassi nasce dal progressivo sviluppo e affinamento di strumenti volti alla misurazione delle variabili macroeconomiche che non si limitino a dar conto dell'andamento dei soli parametri "dimensionali" della crescita economica– come, per esempio, l'oscillazione di un prezzo –, ma anche di quelli della "direzione" della crescita*').

functional impact on the contract which they access, and, therefore, on the *synallagma* and on the *causa*[36] of the same.[37]

Before going in-depth into the issue, some considerations should be made. The payment of interest is a civil fruit that is the consideration for the enjoyment of a good and, in this case, for the utility derived from the use of money (Art 820, para 3 of the Italian Civil Code).[38] The functional versatility of the obligatory pecuniary relationship entails the variability of the synallagmatic potential of the same and, consequently, the entity and existence of the consideration based on the utility produced in the specific case.[39]

The variability of the enjoyment consideration resulting from the provision of the Code, unlike the rigid declarations of automatic production of interest on liquid and receivable credits and the legal interest rate referred to in Arts 1282 and 1284 of the Italian Civil Code, corresponds more closely to the constitutional logic of protection of the currency according to the different utility deriving from the title of the pecuniary obligation.[40] It guarantees, in fact, a variable determination of the consideration in the light of balancing the interests and the values concretely involved, inspired by proportionality, adequacy and sustainability.[41] In this way, the relevance of the existential functions allows the determination of a balance not exclusively based on economic equivalence and compliant with the utility of a non-patrimonial nature. This is bound inevitably to affect the synallagmaticity of the obligatory

[36] *Causa* means the 'summary of essential legal effects coloured by the concrete interests that the operation is intended to achieve', otherwise, the grounds constitute 'the concrete interests of one or both parties not inferred in the concrete regulation'. In this sense, see P. Perlingieri and A. Federico, in P. Perlingieri et al, *Manuale di diritto civile* (Napoli: Edizioni Scientifiche Italiane, 12th ed, 2024), 491-499.

[37] Interesting in this regard is Corte di Cassazione ordinanza 16 March 2022 no 8603, which refers to the Sezioni Unite the question of a financial leasing contract of property to be built with the insertion of a clause indexing the fees. The Court, in fact, notes the need to assess whether the provision of such a clause, beyond its classification as a derivative, affects the *causa* of the contract.

[38] M. Semeraro, *Pagamento*, n 24 above, 38-40.

[39] E. Caterini, *Le obbligazioni pecuniarie*, n 25 above, 21-22.

[40] Art 820, para 3 of the Italian Civil Code does not give the parties absolute discretion in determining the amount and nature of the consideration but differentiates according to the concrete functions of the obligatory relationship. The need for distributive justice implies the use of lower interest rates, the indexation of the obligation to environmental objectives, or the production of effects in favour of non-parties with a legally protected interest. In this sense, the overall remuneration could also be affected by the very significant regulatory, fiscal and monetary *derisking* interventions on the side of public institutions. D. Gabor, 'The (European) Derisking State' *Stato e mercato*, 1, 53-84 (2023).

[41] ibid 22-24.

relationship, generating situations in which the consideration is commensurate to the enjoyment of the good according to Pareto efficiency,[42] in which it is economically inferior to the same or in which it is even lacking.[43]

This leads, therefore, to forms of remuneration for capital which are not merely based on proportionality, but rather on an assessment of adequacy in relation to the functions pursued by the obligatory relationship. The general nature of the underlying interests may, in fact, become a parameter of particular merit of the negotiating operation such as to affect the consideration of the relationship.[44] In the present case, the fulfilment of the pecuniary obligation relating to the reimbursement of the sum invested and the payment of interest at a rate lower than the market rate and/or to the achievement of a specific environmental objective corresponds to the particular function of the social utility effectively pursued. As stated above, the constitutional protection of savings and credit is not indiscriminate and detached from the different functions performed, but varies according to the balance struck with other interests and values underlying the relationship, such as ecologism.[45] It follows that the consideration for the enjoyment of a sum of money referred to in Art 820, para 3 of the Italian Civil Code and, therefore, the investor's remuneration, depends on the title of the obligatory relationship. The economic or existential nature of the function affects the content of the pecuniary performance so as to be capable of including non-pecuniary utilities in the strict sense, such as the conservation and improvement of natural resources, or of removing the reason of the consideration for the lack of a positive and lasting impact on the environment to which it was related.[46] In the latter case, the contract would be too uncertain and would discourage investment or encourage greenwashing operations behind which lie merely speculative intentions. For this reason, it is

[42] 'Pareto Efficiency, a concept commonly used in economics, is an economic situation in which it is impossible to make one party better off without making another party worse off (…). Therefore, Pareto Efficiency indicates that resources can no longer be allocated in a way that makes one party better off without harming other parties. In Pareto Efficiency, resources are allocated in the most efficient way possible', available at https://corporatefinanceinstitute.com/resources/economics/pareto-efficiency/.

[43] This possibility is inferred from the same concept of '*sinallagma*' whose etymology refers to '*ἀλλάσσω*'. The Greek term, in addition to indicating 'to give or receive something in return' also means 'to leave, to abandon', opening up to forms not necessarily equivalent to legal relations.

[44] E. Caterini, *Le obbligazioni pecuniarie*, n 25 above, 78-80.

[45] ibid 18-19.

[46] ibid 22-24.

necessary to provide for measures of social effectiveness and economic materiality to ensure savers benefits to compensate for the reduced economic attractiveness of the investment. It would be a utility also of a non-pecuniary nature that, pursuant to Art 820, para 3 of the Italian Civil Code, serves as consideration for the enjoyment of money, such as the provision of health services or social assistance. This leads to different risk-taking by the investor, not necessarily higher than that resulting from traditional financial instruments. In fact, it is guaranteed an advantage in the short term which is capable of being assessed economically and, therefore, of a patrimonial nature in the sense that is strictly understood and, at the same time, in the long term, a lower exposure to random events with a high probability of verification, such as climatic ones.[47]

There is a different hypothesis of specific environmental impact measures, such as the production of renewable energy to which the reduction of carbon dioxide emissions is related. It is a risk mitigated and greatly reduced by the use of environmental impact assessment criteria which are not only qualitative but also quantitative and, therefore, more stable and easier to measure.[48] For these reasons, it is a more guaranteed and long-term remuneration.[49]

It forms part of an exchange which is not merely based on the economic equivalence of performances but which is suitable for achieving an outcome beneficial to the investor in a socio-environmental and potentially economic way. This does not affect the patrimonial nature of the contract that exists even outside the market's commutative logic in the perspective of distributive

[47] Unregulated markets are, in fact, incomplete, as they are exposed to adverse risks, also climatic ones, which are not hedged. They are therefore always exposed to sunspot, that is, 'an extrinsic random variable (➔), which is not connected to market fundamentals (such as the preferences and resources of agents or production technology), which nevertheless influences the behaviour of operators through their expectations (➔ expectation) on the choices of everyone else'. 'Macchia solare' *Dizionario di Economia e Finanza* (Roma: Treccani, 2012), available at https://tinyurl.com/bdzbw29k. This leads to inefficient fluctuations in the economy. G. Giraud, *Transizione ecologica. La finanza a servizio della nuova frontiera dell'economia* (Verona: EMI, 2015), 74.

[48] As regards the difficult *ex ante* measurement of the social impact by investors and, consequently, the identification of adequate quantitative and qualitative parameters, see C. Mignone, 'Meritevolezza dell'iniziativa, monetizzazione del benessere e nuovi modelli di welfare sussidiario' *Rassegna di diritto civile*, I, 115, 123 (2017).

[49] According to G. Giraud, *Transizione ecologica*, n 47 above, 27, this would be a profitability of 3% over ten years. On the greater profitability of green financial instruments compared to traditional ones, see B. Hachenberg and D. Schiereck, 'Are Green Bonds Priced Differently from Conventional Bonds?' *Journal of Asset Management*, 19, 371-383 (2018).

justice.[50] The patrimonial interests underlying the negotiating operation can, in fact, realise as many benefits, not only individual but also and above all social ones, as are those expressed by constitutional legality.[51] The compensatory nature of the performance stems from the homogeneity or heterogeneity of their functions.[52] It follows that the conclusion of financing contracts, the *causa* of which is characterized by ecological objectives,[53] implements both patrimonial and existential interests to justify an exchange that is not synallagmatic but 'anallagmatic'.[54] The latter is aimed at implementing human dignity and substantial equality

[50] E. Caterini, *Sostenibilità e ordinamento civile. Per una riproposizione della questione sociale* (Napoli: Edizioni Scientifiche Italiane, 2018), 99.

[51] '*(I)l contratto perequativo dà effettività alla dignità della persona'. Tale contratto 'fondato sulla prestazione satisfattiva sine-allagmatica, (…) non presenta ragioni competitive mentre accentua la giustizia sociale sostenibile (…) Il contratto satisfattivo sine-allagmatico, pur se a contenuto patrimoniale, inaugura il gruppo dei contratti gratuiti tesi ad assicurare la dignità della persona, in quanto tali leciti e meritevoli (…) I contratti della comunità sociale hanno pur sempre un contenuto patrimoniale, possono essere di scambio ma non corrispettivi (…) È la categoria dei contratti del welfare society nei quali emerge il nesso tra la produzione e la persona*', ibid 99-104 (the equalizing contract, based on sine-allagmatic satisfactory performance, implements the need of distributive justice and ensures the dignity of the person. Although it is not compensatory, it still has a patrimonial content and can be of exchange).

[52] Interesting, in this regard, is the decision of the Corte di Cassazione 8 October 2018 no 24734, which qualifies the so-called 4You contract as not worthy of protection pursuant to Art 1322, para 2 of the Italian Civil Code, because it lies in contrast with the principles set out in Arts 47 and 38 of the Italian Constitution on the protection of savings and the incentive of forms of social welfare, including private ones. It is, in fact, a complex unilateral random negotiating operation characterized by an abnormal imbalance between the performances, since, while the bank acquires the immediate availability of the loan amount to be allocated to financial investment, without the constrains of the mandate, and profits from the restitutive interests, the subscriber of the contract will accrue only at the end of the contract the premium of his investment and only if it is active. In this case, the compensatory nature derives from the homogeneity of the interests underlying the transaction based on a commutative exchange and, consequently, implies an assessment of the economic equivalence of the benefits.

[53] M. Pennasilico, 'Sviluppo sostenibile e "contratto ecologico": un altro modo di soddisfare i bisogni', in Id ed, *Contratto e ambiente. L'analisi "ecologica" del diritto contrattuale* (Napoli: Edizioni Scientifiche Italiane, 2016), 299, '*(ne)l contratto ecologico (…) l'interesse ambientale penetra e colora la causa del contratto, enfatizzando tanto la convergenza degli interessi dei contraenti all'utilità ambientale, nonostante l'iniziale asimmetria informativa, quanto la doverosità dell'uso razionale delle risorse naturali a vantaggio anche delle generazioni future. Il principio dello sviluppo sostenibile costituisce, così, un parametro di meritevolezza dei contratti ecologici*' (in the ecological contract the environmental interest connotes and conforms to the *causa* of the contract, promoting the purposes of environmental utility. It follows that the principle of sustainable development is a parameter of merit of ecological contracts).

[54] E. Caterini, 'Il contratto sinallagmatico e anallagmatico', forthcoming.

through performances that ensure access to essential goods and services and consequently, utility of general interest.[55]

This does not preclude a judgment of merit of the concrete initiatives, as an assessment of the positive implementation of the fundamental values,[56] involving an evaluation not only in quantitative terms but also of the 'better qualitative satisfaction of the vital needs of the person'.[57] To this end, the judgment of sustainability becomes a parameter of merit of acts and relationships as functional to preserve the quality of life and the person in its continuity.[58] It serves as a general clause which, together with reasonableness and proportionality,[59] ensures existential needs in the social dimension[60] and, therefore, adapts or produces the concrete rule aimed at the best implementation of the fundamental principles.[61]

[55] F. Maisto, 'L'ingegnerizzazione finanziaria del contratto nell'economia globale: cartolarizzazione dei contratti derivati, cryptocurrencies e non-fungible tokens' *Il diritto degli affari*, 3, 204-220 (2023) who, in resuming the opinion of F. Galgano, 'Lex mercatoria, autonomia privata e disciplina del mercato', in M. Paradiso ed, *I mobili confini dell'autonomia privata* (Milano: Giuffrè, 2005), 677, confers to the contract the function of production, as well as of exchange, of financial utility. A reading of 'maximum implementation of the Constitution' would lead to link the exchange of the contractual relationship to social benefits, including ecological profiles.

[56] P. Perlingieri, '"Controllo" e "conformazione" degli atti di autonomia negoziale' *Rassegna di diritto civile*, 1, 204, 213 (2017), according to which '*un'interpretazione costituzionale dell'art. 1322 c.c. – e, in particolare, il principio di legalità – impone di assegnare alla locuzione "nei limiti imposti dalla legge" un peculiare significato. La conformità al sistema non si esaurisce in un controllo meramente "negativo" (non contrarietà a norme imperative, ordine pubblico e buon costume), ma va individuata e verificata anche in relazione alle norme che impongono valori positivi (es. artt. 2, 3, cost.). Sí che il concreto atto sarà meritevole soltanto se attuativo dei valori fondanti il sistema*' (according to a constitutional interpretation of Art 1322 of the Italian Civil Code, conformity to the legal system and, therefore, the merit of the act implies a control on the positive implementation of the fundamental values).

[57] E. Caterini, *Sostenibilità e ordinamento civile*, n 50 above, 109.

[58] On the assessment of sustainability as a qualitative parameter of merit of acts and relationships, '*(i)l giudizio di sostenibilità rende meritevole ciò che preserva la persona e la comunità alla crescente autoconservazione. I parametri di misurazione della crescita o del benessere di un popolo mutano da esclusivamente quantitativi a quali-quantitativi [...] Aggettivare il contratto, la responsabilità, la proprietà e gli altri istituti del diritto civile europeo con la qualificazione "sostenibile" ha la funzione di introiettare la intergenerazionalità nel rapporto che scaturisce dai fatti giuridici su menzionati, in modo da considerarne come costante lo scopo sociale di essi*', ibid 33-44, 86.

[59] Relating to the proportionality to be understood as a rule-principle and, therefore, not identifiable by the equivalence and/or appropriateness of the patrimonial attributions subject to the exchange but aimed at ensuring the congruity of the interests of the actual contractual agreement, see A. Federico, 'Equilibrio e contrattazione algoritmica' *Rassegna di diritto civile*, 2, 483, 491-493 (2021).

[60] E. Caterini, *Sostenibilità e ordinamento civile*, n 50 above, 148-149.

[61] '*La sintassi delle regole prevede l'adattamento alla realtà anche con le clausole generali: tutto affinché il mondo resti com'è, i suoi assetti d'ordine proseguano, il sistema*

The relevance of the numerous interests and values involved in practice, of an existential or patrimonial nature or of both, implies a balance based on their importance in accordance with the hierarchy of the Italian-European constitutional system. Sustainability, therefore, can affect both the fact, as its essential element, and the relationship, becoming a condition of effectiveness.

IV. Conclusions

In light of these considerations, it emerges how the evolving socio-economic scenario leads to the inclusion of ecological issues, as an implementation of the human personality, in the obligatory relationships conventionally characterized by speculative purposes, such as financial ones.

The functional peculiarities of the analysed financial instruments affect the value of pecuniary performances in terms of the negotiating provisions of a remuneration that is financially lower than the rates charged on the market or indexed to the achievement of pre-established thresholds of positive environmental impact. This results in the loss of the synallagmaticity of the contract-source, understood as measured exclusively with the parameters of the economic efficiency of the market, that is, with homogenous and quantitative parameters. It becomes the expression of an exchange based on the commutative logic no longer in its traditional sense but in the innovative one permeated by demands of social justice and, therefore, of equal distribution of goods and services for the satisfaction of the basic needs of the person. In accordance with a reading of 'maximum implementation of the Constitution'[62] of Art

normativo li protegga, mantenendo l'aspettativa della stabilità dei comportamenti; la sintassi dei princípi non cerca la stabilità, ma la giustizia: è la funzione costituente, la trasformazione, l'innovazione e se necessario anche la rivoluzione rispetto alle regole. Le clausole generali non sovvertiranno mai il mondo, perché sono nate e pensate per confermarlo. Le regole disciplinano, i princìpi giudicano; le regole sono il primo tempo dell'ordine, i princìpi, il secondo, e fondamentale (234-235) *(…) Le clausole generali escono rafforzate da questa revisione teorica (…) quando l'interpretazione sistematica individui nel caso (non l'esigenza di sovversione, ma) la necessità di adattamento riservato alla autonoma creazione sociale di significati regolativi, le clausole saranno applicate per effetto di una delegazione ricevuta dai princìpi*' (245), P. Femia, 'Tre livelli di (in)distinzione tra princìpi e clausole generali', in G. Perlingieri and M. D'Ambrosio eds, *Fonti, metodi e interpretazioni. Primo incontro di studi dell'Associazione dei dottorati di diritto privato, Napoli, 10-11 novembre 2016* (Napoli: Edizioni Scientifiche Italiane, 2017).

[62] The expression of S. Pugliatti, 'La retribuzione sufficiente e le norme della Costituzione' *Rivista giuridica del lavoro*, I, 189-194 (1949-1950); Id, 'Ancora sulla minima retribuzione sufficiente ai lavoratori' *Rivista giuridica del lavoro*, II, 174-176

820, para 3 of the Italian Civil Code, this aim allows for the payment of an amount that is made up of benefits of a patrimonial nature, to be understood as inclusive of its qualitative meaning, and, therefore, according to the degree of intensity and 'proximity' to the personal value, the purposes of social utility or general interest.[63]

In this regard, it can be considered a 'social' obligatory relationship which, in the light of objective and functional peculiarities, presupposes a relationship between complex legal situations whose imputed centre of interests[64] is by nature pluri-subjective, exceeding the subjective sphere of the creditor or debtor. It is an obligatory relationship whose active and passive situations are subjectively spread to a distinct plurality of holders, direct beneficiaries of non-financial utilities produced by constitutionally valued activities.[65]

(1951), limited to principles with a normative function with defined content, is to be understood according to a historical-evolutionary vision as including all the fundamental principles set out in the Constitution.

[63] On the distinction between social utility and general interest, see E. Caterini, 'Iniziativa economica privata e "crisi ecologica"', n 8 above, 309-310, in which '*(l)'utilità sociale persegue più equi rapporti sociali, l'interesse generale la dignità dell'uomo. L'ecologismo si avvale ora dell'una ora dell'altra, a seconda se investe la modalità della razionalità ecologica, ovvero, attenta alla persona nella sua essenza esistenziale. Nel primo caso è in questione il livello e il miglioramento della tutela ambientale; nel secondo caso la sicurezza ambientale*' (the social utility pursues the equity of social relationships while the general interest implements the dignity of the person. Ecology achieves one or the other function depending on whether the aims are to improve environmental protection or ensure environmental safety).

[64] The subject is the centre of imputations of interests and subjective situations. It is not an essential element of the subjective situation since there are interests protected by the legal system even without a current holder. It is, however, essential to the ownership of the subjective situation, understood as a link between the subject and the subjective situation (P. Perlingieri, *Il diritto civile nella legalità costituzionale secondo il sistema italo-europeo delle fonti. Metodi e tecniche* (Napoli: Edizioni Scientifiche Italiane, 4th ed, 2020), I, 257-259).

[65] For an in-depth discussion of the topic, please refer to a subsequent work in progress.

Freedom of Economic Initiative and ESG Parameters. Towards a New Corporate Social Responsibility

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Abstract

The need to calibrate the freedom of economic initiative against the parameters of sustainability requires reflecting on the forms of corporate social responsibility. The evolution of doctrine, jurisprudence, and legislation consistently underscores the obligation to respect the right to a healthy environment. This work, based on a methodological approach that prioritizes individual protection and is attentive to each case, highlights the different functions that, from time to time, corporate responsibility can assume.

Keywords

Corporate Social Responsibility, Freedom of Economic Initiative, Shell Case, Sustainable Economic Activities, New Ecological Enterprise.

I. Sustainability and Enterprise: Towards a New Business Standard

Phenomena such as rising temperatures, sudden weather events and, in general, unprecedented natural occurrences have made it imperative to take action to balance environmental protection objectives with freedom of economic initiative, and, in other words, with the 'logic of profit underlying the corporate schemes'.[1] In this scenario, corporate social responsibility – CSR – has changed significantly.

Compared to the past, sustainable development and CSR are no longer separable elements but must be viewed as a unified concept. In this perspective, legal scholars face new 'questions of a systematic order' because 'the environment, understood as the complex of goods that touch human life, presents itself to the legal system in a changed position'.[2] This

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[1] L.E. Perriello, 'Per una sostenibilità in linea con il profitto' *Rivista di diritto dell'impresa*, 178 (2022). More recently, see 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, B. Nosworthy, *Principles of Contemporary Corporate Governance* (Cambridge: Cambridge University Press, 5th ed, 2024) 277-289.

[2] E. Caterini, 'Iniziativa economica privata e "crisi ecologica". Interpretazione anagogica e positivismo', in G. Perlingieri and E. Giorgini eds, *Diritto europeo e legalità*

evolution has 'ferried' sustainable development from an exclusive instrument of environmental protection to a safeguard of economic and social development.[3]

The discussion so far reflects the introduction of Environmental, Social and Governance[4] (ESG) criteria, which have brought out the dual dimension (environmental and social) of economic growth.[5] Through these three instruments, consumers, stakeholders, and investors can verify a company's commitment beyond the mere social impact of the purchase of a product or the convenience of a long-term investment.

Therefore, it seems important to underline that this need, embedded in a new globalized economy, is not confined to a single country but applies to the world economy as a whole. From this perspective, we will examine the European regulatory framework, with particular attention to national regulations, while drawing comparisons with the US common law approach. First, it should be noted that the two systems are based on different values. However, even if there is a distinct value concept, personalist in the first case and individualist in the second, they all converge on the same 'ideal' of achieving the sustainability objectives outlined in the UN's 2030 Agenda.

Implementing these objectives aims to reverse the trend of recent decades, where freedom of economic initiative has been wrongly founded on 'ecological impoverishment'. For years, the environment has been seen

costituzionale a trent'anni dal volume di Pietro Perlingieri (Napoli: Edizioni Scientifiche Italiane, 2024), 273-362.

[3] '*La sostenibilità assurge a parametro valutativo dell'agire dei privati oltre che del pubblico*'. In this sense see E. Caterini, *Sostenibilità e ordinamento civile. Per una riproposizione della questione sociale* (Napoli: Edizioni Scientifiche Italiane, 2018), 91.

[4] Although this is not the subject of this study, it is appropriate to make a clarification. The acronym ESG reflects what was said initially, namely the concept of sustainable development and CSR as a unified entity. This is reflected, in fact, in the three dimensions of Environmental, Social and Governance. The 'E' covers all environmental criteria, assessing the behaviour and impact of a company both in the place where it operates and in the environment in general. The 'S' pertains to the social impact or the attention that the company must have towards the territory, employees, suppliers, customers and, in general, society as a whole. Finally, the 'G' stands for business management that aims at good practices and respect for ethical principles.

On this point, see R. Marcello and A.M. Loia, 'L'integrazione dei fattori ESG nel processo di risk governance: pianificazione strategica e disclosure' *Società e contratti, Bilanci e revisione*, 84-103 (2024).

[5] See M. Castellaneta, 'La promozione dello sviluppo sostenibile e la responsabilità sociale di impresa', in P. Acconci ed, *La responsabilità sociale di impresa in Europa* (Napoli: Edizione Scientifiche Italiane, 2009), 55. For a more recent source, see S. Rossi, 'Il diritto della Corporate Social Responsability', in C. Concetto et al eds, *Studi di diritto commerciale per Vincenzo Di Cataldo, Impresa, società, crisi d'impresa* (Torino: Giappichelli, 2021), II, 771.

as a means to extract goods and financial value, and people and nature have been considered resources for the economy.[6]

Therefore, the market must now go beyond profit as the sole motivation for doing business and consider the broader impact the activity can have on human rights[7] and the environment.

In this context, 'generosity, the sense of the community', respect and protection of the environment must be considered criteria that, moving away from the mere selfish interest typical of a profit-driven market and, therefore, heritage, are essential for establishing a market attuned to the new demands of social responsibility.[8]

II. Economic Initiative in Light of the Italian-European Regulatory Framework

The social change[9] described here is not only a national but an international[10] and European imperative. Think, for example, of the United Nations 'Global Compact' initiative, which has deepened the application of environmental protection principles to business.[11] Consider

[6] In this sense and to deepen understanding, see E. Caterini, 'Iniziativa economica privata e "crisi ecologica"', n 2 above. The author points out that: '*l'industrialismo, quindi l'intrapresa privata, ha fondato la sua espansione economica sull'impoverimento ecologico. Alla trasformazione a buon mercato della natura, al fine di ricavarne merci-valore, si è unito il mercato dei bisogni non più dipendenti dal lavoro ma dal guadagno e dal patrimonio accumulato. La tecnoscienza industrializzata ha artefatto la natura tramutandola in merce e valore economico, e al contempo ha naturalizzato l'economia. Di tal modo l'uomo e la natura sono divenuti "risorse" e l'economia ha inglobato l'ecologia*'.

[7] In this sense see P. Perlingieri, *Il diritto civile nella legalità costituzionale secondo il sistema italo-europeo delle fonti. Attività e responsabilità* (Napoli: Edizioni Scientifiche Italiane, 2020), IV, 203 where the author points out that: '*Uno stato sociale di diritto dipende sí dalla sua efficienza produttiva e organizzativa, ma soprattutto dall'attenzione che riserva a momenti di solidarietà compatibili con quanto effettivamente produce o è potenzialmente e realisticamente capace di produrre. L'investimento sociale si traduce, a sua volta, in un investimento produttivo destinato a dare efficienza allo stesso mercato*'.

[8] See A. Sen, 'Codici morali e successo economico' *Mulino*, 194 (1994); Id, 'Markets and Freedom: Achievements and Limitations of the Market Mechanism in Promoting Individual Freedoms' *Oxford Economic Papers*, 45, 519 (1993).

[9] In this sense, see K. Davis, 'Understanding the Social Responsibility Puzzle' 10(4) *Business Horizons*, 49 (1967), where the author stated 'they possess such a great initiative, economic assets, and power in their actions do have social effects'.

[10] See F. Marella, 'Regolazione internazionale e responsabilità globale delle imprese transnazionali' *Diritti umani e diritti internazionali*, 230 (2009).

[11] Three principles of the Global Compact are important for the subject under discussion. The first, principle no 7, stresses that 'Businesses should support a precautionary approach to environmental challenges'. Secondly, principle no 8 states that businesses should 'undertake initiatives to promote greater environmental responsibility'. Thirdly, principle no 9 says that they should 'encourage the development and diffusion of

also the subsequent introduction, in 2010, of so-called benefit corporations that provide for the realization of a public benefit alongside the social benefits offered by individual social statutes.[12]

On the other hand, at the European level, the adoption of the European Parliament and Council Directive 2022/2464/EU[13] (CSRD) addresses corporate sustainability[14] reporting, mandating adherence to European principles of sustainability reporting.[15] Equally important is the European Parliament and Council Directive 2024/1760/EU, approved on 24 May, which outlines companies' due diligence obligations.[16]

The new EU Regulations impose additional duties on directors regarding non-financial reporting to which companies will be subject. The Directive is guided by key principles of precaution and transparency, both of which are rooted in the broader principle of sustainable development. However, the first calls on companies to promote and encourage the use of appropriate technologies for the ecological development of the planet, while the second demands that businesses operate with transparency concerning their societal and environmental impact. In other words, non-financial statements are based on sustainable financial principles. Their

environmentally friendly technologies'. The text of the Global Compact is available at the following link: https://unglobalcompact.org/.

The project is the starting point that has been considered in the exercise of business, as well as aspects related to protecting human rights, work, the environment, and the fight against corruption and sharing.

In doctrine, see M. Cutillo, 'I National Contact Point dell'OCSE sulle imprese multinazionali. Un meccanismo di accesso alla giustizia effettivo per la società civile?', in F. Francioni ed, *Accesso alla giustizia dell'individuo nel diritto internazionale e dell'Unione europea* (Milano: Giuffrè, 2008), 233.

[12] In doctrine, see J.W. Callison, 'Putting New Sheets on a Procrustean Bed: How Benefit Corporations Address Fiduciary Duties, the Dangers Created, and Suggestions for Change' 2(1) *American University Business Law Review*, 85 (2012).

In the legislation, see para 201 of the Model Benefit Corporation Legislation.

[13] European Parliament and Council Directive 2022/2464/EU of 14 December 2022 amending Regulation (EU) no 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting [2022] OJ L322/15. In particular, it stresses the link between social and environmental issues. In particular, see Recitals 9 and 53.

[14] However, just as for the United Nations, the importance of integrating the Union's policies with environmental issues also emerged in Europe in the 2000s, and in particular with the Charter of Fundamental Rights. Its Art 37 points out precisely that 'A high level of environmental protection and the improvement of the quality of the environment must be integrated into the policies of the Union and ensured in accordance with the principle of sustainable development'.

[15] Commission Delegated Regulation 2023/2772/EU of 31 July 2023 supplementing Directive 2013/34/EU of the European Parliament and of the Council as regards sustainability reporting standards [2023].

[16] 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 [2024].

ultimate purpose is to provide investors, 'non-governmental organizations, social partners, communities affected by business activities and other stakeholders'[17] with a clear understanding of the risks and opportunities that sustainability presents for its investments as well as for comparing companies within the market.

The framework described must also pay attention to the European Parliament and Council Regulation 2020/852/EU that introduced the so-called taxonomy of eco-sustainable economic activities.[18] The purpose of this Regulation is to create a guide for companies, investors, and public institutions to assess their activities, integrate sustainability policies, define their business policies, and, in general, improve internal ecological transition policies. To this end, Art 9 identifies the environmental objectives that must be pursued for an activity to be classified as ecological. The company, choosing at least one, will have to act without harming others. What has just been said is the explanation of the 'Do No Significant Harm' principle (DNSH).[19]

These principles help implement the so-called 'value chains' outlined in the Directives. With this term, the European legislator refers to the entire production chain (including products and services, business relationships, and supply chains, as well as the measures taken to identify and monitor any negative environmental impacts).[20]

The EU's objective is clear: to 'pursue an "ecological budget" that preserves the existing status' through the creation of precise rules that dictate 'the conditions to productivism' according to which: 'a) the exploitation of resources cannot exceed natural or managed regeneration; b) waste deposited in the environment cannot exceed the assimilation rate'.[21]

Art 19 *bis* of the CSRD mandates that both large and small and medium-sized enterprises prepare the above-mentioned corporate sustainability report. This report must include 'information necessary for understanding how sustainability issues affect the performance of the company, its results and its situation'. However, micro-enterprises are excluded from this obligation.

[17] See Recital 14 of the European Parliament and Council Directive 2022/2464/EU.

[18] European Parliament and Council Regulation 2020/852/EU of 18 June 2020 on the establishment of a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088 [2020] OJ L198/13.

[19] To learn more about DNSH in business matters, see S. Ostojić, L. Simone, S. Edler and M. Traverso, 'How Practically Applicable Are the EU Taxonomy Criteria for Corporates? An Analysis for the Electrical Industry' *Sustainability* (2024).

[20] See Art 19 *bis*, para 2, letter f, point ii of the European Parliament and Council Directive 2022/2464/EU.

[21] E. Caterini, 'Iniziativa economica privata e "crisi ecologica"', n 2 above, 273-362.

At the national level, Member States must transpose the CSRD by 6 July 2024. In Italy, the Ministry of Economy and Finance launched a consultation phase that closed on 18 March.[22] Although transposition has started, national legislation already imposes direct and indirect obligations. References are made to the bill transposing the European Parliament and Council Directive 2014/95/EU[23] and the principles enshrined in the Italian Constitution and the Italian Environment Code.

The solidaristic and personalistic character of the Italian Constitution obliges legal scholars to understand freedom of economic initiative not merely as an instrument of the entrepreneur's[24] prerogative but as a general principle that helps to balance inequalities in relationships, protect legal positions. and safeguard collective interests that might otherwise be overlooked.[25] This imprint joins the recent constitutional reform affecting Arts 9 and 41, which emphasize that economic activity becomes instrumental in the realization of the existential values of the person.[26] This perspective also informs the interpretation of 'social utility'[27]

[22] The draft of the transposition decree subject to consultation can be viewed at the following link: https://www.dt.mef.gov.it/export/sites/sitodt/modules/dipartimento/consultazioni_pubbliche/3_Consultazione-decreto-di-ecepimento-CSRD.pdf.

[23] European Parliament and Council Directive 2014/95/EU of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups [2014] L330/1.

[24] This 'restricted' concept, on the other hand, is the characteristic of the overseas system of so-called Corporate Philanthropy. On this point, see R.N. Mefford, 'Sustainable CSR in Global Supply Chains' 9 *Journal of Management and Sustainability*, 82-92 (2019). More dated in time, see T.A. Hemphill, 'Corporate Governance, Strategic Philanthropy and public Policy' *Business Horizons*, 32 (1999).

[25] In this sense and to deepen understanding, see A. Addante, 'Responsabilità sociale dell'impresa' *Digesto*, 5 (2005).

[26] In this sense see P. Perlingieri, *Il diritto civile nella legalità costituzionale secondo il sistema italo-europeo delle fonti*, n 7 above, 217. See also in the mentioned work, page 216 where the author points out '*in ciò consiste il nesso inscindibile tra libertà di iniziativa economica e valori personalistici e solidaristici, là dove "inviolabili" sono i diritti dell'uomo e "inderogabili" sono i doveri di solidarietà economica, politica e sociale; si che le situazioni patrimoniali [...] non possono non realizzarsi in conformità ai valori del personalismo e del solidarismo*'.

[27] For a deeper exploration, see P. Weitzel and Z.J. Rodgers, 'Broad Shareholder Value and the Inevitable Role of Conscience' *New York University Journal of Law & Business*, 35 (2015). For a more historical perspective, see W.B. Donham, 'The Social Significance of Business' *Harvard Business Review*, 406 (1927). As early as 1927, Donham noted that 'unless more of our business leaders learn to exercise their powers and responsibilities with a definitely increased sense of responsibility toward other groups in the community, unless without great lapse in time there is through the initiative of such men an important socializing of business, our civilization may well head for one of its periods of decline'. Nearly a century later, Donham's words appear almost prophetic. See also E. Merrick Dood Jr, 'For Whom Are Corporate Managers Trustees?' 45 *Harvard Law Revied*, 1145 (1932) where the author stresses that society is an 'economic institution which has a social service as well as a profit-making function'.

contained in Art 41 and the definition of 'social function' outlined in Art 42 of the Italian Constitution.

The first, in fact, becomes a tool to 'weigh' the merit of the entrepreneur's modus operandi, while 'the person and his dignity become the confirmative limit of the same concept of autonomy or freedom of negotiation'.[28]

Within this framework of values, companies emerge as the protagonists of ecologically responsible progress.[29]

III. The Shell Case. Avant-garde of Modern Corporate Social Responsibility

The attribution of the power to 'bring about social change'[30] to companies highlights the social responsibility they bear in achieving the common objectives of the UN's 2030 Agenda on the one hand[31] and the inevitable transformation of CSR on the other. In this context, another important principle should be introduced: the adequacy[32] emphasized by the CSRD. The purpose of the rule mentioned above requires companies to adapt their organizational structure to achieve the abovementioned objectives.

A similar approach was taken by the Hague District Court, which, in the case of Royal Dutch Shell,[33] ordered Shell to reduce CO_2 emissions by at least 45% by 2030 compared to those of 2019. The importance of the case lies in the application of the international principle of the standard of care. The latter, read together with the United Nations Guiding Principles on Business and Human Rights, the United Nations Global Compact, and

[28] P. Perlingieri, *Il diritto civile nella legalità costituzionale secondo il sistema italo-europeo delle fonti*, n 7 above, 277 in which the author also stresses that '*"[i]l rispetto dell'utilità sociale" "condiziona tutto il mercato e tutte le attività di mercato" e seppure "il contratto, anche "d'impresa", non è tenuto a perseguire l'utilità sociale, deve essere ad essa conforme, non solo nella sua produttività, ma più in genere nel suo risultato economico"*'.

[29] See F. Lazzara, 'L'azienda come motore per la transizione giusta: dalla Responsabilità sociale d'impresa all'advocacy. Il caso del contratto di espansione' *federalismi.it*, 206-223 (2024); M. Clarich, 'La tutela dell'ambiente attraverso il mercato' *Diritto pubblico*, 219 (2007).

[30] L.E. Perriello, 'Per una sostenibilità in linea con il profitto', n 1 above, 185.

[31] See F. Lazzara, 'L'azienda come motore per la transizione giusta: dalla Responsabilità sociale d'impresa all'advocacy', n 29 above, 211.

[32] To learn more, see V. Buonocore, *Le nuove frontiere del diritto commerciale* (Napoli: Edizioni Scientifiche Italiane, 2006), 199.

[33] The decision of the Hague Court is available at the following link: https://www.giurisprudenzapenale.com/wp-content/uploads/2021/07/ECLI_NL_RBDHA_2021_5337.pdf.

the OECD Guidelines on Multinational Enterprises,[34] led the courts to conclude that Shell's action was negligent. The Hague judges identified a general corporate responsibility for climate change, anticipating the EU legislator and highlighting the need to align the Dutch legal system[35] with both international and Union principles. Thanks to the above principles, along with Arts 2 and 8 of the ECHR[36] and other recent climate-related rulings,[37] the judges highlighted the importance of economic development that considers the right to live in a healthy environment.

What emerges so far is a convergence of jurisprudence, doctrine, and legislation toward a shared goal.

What was once a matter of hermeneutic activity has now become a parameter of accountability[38] for all companies, which must adhere to and implement the prescribed standards.[39] This approach aims to fulfil at least one of the objectives outlined in Art 9 of the European Parliament and Council Regulation 2020/852/EU.

IV. The New Corporate Social Responsibility

Given this context, it must be stressed that CSR, like the general rules laid down by the legislator, must also differentiate between the source (contractual or non-contractual) of liability, the presence or absence of the psychological element, the assessment criteria, and the resulting accountability. In other words, thanks to the general clause of unjust

[34] In this sense, see E. Napoletano and S. Spinelli, 'Il caso Royal Dutch Shell. La Corte olandese impone il taglio del 45% delle emissioni di CO_2 al 2030: abuso di diritto o rispetto degli accordi internazionali?' *Giurisprudenza penale*, 10 (2021).

[35] P. Perlingieri, 'Argomentazione comparativa', in R. Favale and L. Ruggeri eds, *Scritti in onore di Antonio Flamini* (Napoli: Edizioni Scientifiche Italiane, 2020), 1053.

[36] Think of Eur. Court H.R., *Lopez Ostra* v *Spagna*, Judgment of 9 December 1994; Eur. Court H.R., *Guerra and others* v *Italia*, Judgment of 19 February 1998. See also Eur. Court H.R., *Fadeyeva* v *Russia*, Judgement of 9 June 2005. In these judgments the European Court highlighted that a violation of Art 8 ECHR, stemming from non-compliance with a company's environmental protection policy, can adversely affect an individual's health.

[37] To deepen awareness in this sense, see the case *Urgenda* as well as the cases *Guerra and others* v *Italia* and *Fadeyeva* v *Russia*.

In doctrine, see K. Zabrodina, 'The *Urgenda* Case: The Existential Dimension of Climate Change between Effective Protection and Political Discretion', in L. Ruggeri and K. Zabrodina eds, *Making Production and Consumption Sustainable: A Global Challenge for Legislative Policies. Case Law and Contractual Practices. Guidelines for Changing Markets* (Vienna: SGEM WORLD SCIENCE, 2023), 645.

[38] S. Rossi, 'Il diritto della Corporate Social Responsibility', n 5 above, 780.

[39] For example, in this sense, see the standard of the European Financial Reporting Advisory Group that issued the European Sustainability Reporting Standards. See https://finance.ec.europa.eu/news/commission-adopts-european-sustainability-reporting-standards-2023-07-31_en.

damage[40] contained in Art 2043 of the Italian Civil Code, 'new facts' that may trigger liability can be identified.[41] These include risks related to environmental impact and the subsequent harm to people or property[42] that may arise from business activity.

The classification of corporate responsibility has long been a topic of doctrinal debate, which is divided into two main perspectives. The first advocates for the application of strict liability and, therefore, attributing unjust damage to the company not because of intentional or negligent actions but simply because it engaged in business activities. The second, however, sees responsibility for fault or intent as the cause of unjust damage. Consider, for example, the company's 'abstention' behaviours.

The unitary regulatory framework analysed suggests that the obligation to adhere to ESG parameters gives rise to responsibility not merely as a risk associated with improper conduct of an activity but also as a potential sanction instrument. This refers to cases where the company fails to respect the social utility that the economic initiative must achieve through compliance with the legislation in place.[43]

In this context, it becomes clear that the function pursued by CSR cannot be restricted to a mere reparative function. The variety of injurious behaviours causes an inevitable diversity of functions that, from time to time, according to the implications arising from the unjust damage, will emerge from the concrete case. The choice of one function over another, or their coexistence,[44] serves a dual purpose: ensuring security and evaluating the damage and its intensity to effectively protect the injured party.[45] The choice of function must also be made in light of the legal situations being protected, whether they are financial or existential.[46] Beyond the typical reparative function, CSR also encompasses preventive and punitive functions if the obligation established by the non-financial reporting is not respected or that of striking the right balance between the exercise of the

[40] See V. Buonocore, 'Le nuove frontiere del diritto commerciale', n 32 above, 164; Id, 'Impresa (diritto privato)' *Enciclopedia del diritto*, *Annali*, I, (Milano: Giuffrè, 2007).

[41] In this sense, see G. Alpa, 'La responsabilità civile tra solidarietà ed efficienza' *Rivista critica del diritto privato*, 195 (2004) in which the author stresses that civil liability is '*un laboratorio in attività costante*'.

[42] To learn more, see V. Buonocore, 'Impresa (diritto privato)', n 40 above, 45.

[43] In this sense, see V. Buonocore, 'Le nuove frontiere del diritto commerciale', n 32 above, 233-234.

[44] See P. Perlingieri, 'Le funzioni della responsabilità civile' *Rassegna di diritto civile*, 119 (2011).

[45] See M. Barcellona, *Trattato della responsabilità civile* (Torino: Utet Giuridica, 2011), 7.

For the case law, see Corte costituzionale 11 November 2011 no 303; Corte costituzionale 23 June 2016 no 152; Corte costituzionale 22 October 2014 no 238.

[46] P. Perlingieri, 'Le funzioni della responsabilità civile', n 44 above, 116.

economic initiative and the protection of the rights of the person and the environment.[47]

The decision not to restrict liability to a single function also came from the European legislator. Administrators are encouraged to assess how the company intends[48] to ensure the achievement of the transition objectives and how it considers the interests of multiple internal and external stakeholders interested in the proper exercise of the entrepreneurial activity. In particular, the assessment carried out by the administrator concerns 'the elements of risk and opportunity for the care for the social and environmental impact of business activity'.[49]

It is clear from what has been said that the preventive function provided for in European legislation must be accompanied by the additional punitive function. The company, being obliged to identify the ESG objectives to be achieved, will only be responsible if it respects the self-imposed goals on which the recipients of the goods have relied. Finally, a third function, the so-called deterrent function,[50] guides administrators to align management with sustainability parameters.[51] In other words, the predictability and, therefore, the preventability of harmful events leads the interpreter to consider in the 'sanction key the obligation to compensate for damages'.[52] The goal of production is no longer solely financial; it now also considers the social impact and, therefore, respect for social sustainability as an instrument of solidarity[53] between present and future

[47] To learn more, see G. Alpa, 'Responsabilità degli amministratori di società e principio di "sostenibilità"' *Contratto e impresa*, 725 (2023). See, also, L. Vicente, 'Corporate Governance in the United States, the United Kingdom, New Zeland, Canada, South Africa, India and Singapore', n 1 above, 277-289.

[48] A. Pisani Tedesco, *Strumenti privatistici per la sostenibilità ambientale e sociale* (Torino: Giappichelli, 2024), 157 in which underlines '*fra le diverse funzioni esprimibili dall'istituto, si devono menzionare perlomeno le seguenti: compensativa, preventiva o deterrente, sanzionatorio-punitiva, organizzativa e moralizzatrice*'.

[49] G. Alpa, 'Responsabilità degli amministratori di società e principio di "sostenibilità"', n 47 above, 730-731.

[50] See F. Möslein, 'Sustainable Corporate Governance: A Way Forward' *European Corporate Governance Institute – Law Working Paper No. 583*, 7 (2021). See also L.E. Perriello, 'Per una sostenibilità in linea con il profitto', n 1 above, 193.

[51] However, in some jurisdictions the deterrent function of responsibility for compliance with sustainability indicators is a problem. In Italy, for example, 99% of companies are micro-enterprises excluded from the Sustainability Reporting Directive. In this case, therefore, the deterrent function cannot be attributed to the EU legislation, but to the EU Charter of Fundamental Rights and, in particular, to Art 41 of the Italian Constitution.

[52] F. Quarta, *Risarcimento e sanzione nell'illecito civile* (Napoli: Edizioni Scientifiche Italiane, 2013), 69.

[53] The link between solidarity and sustainability can be tightened in U. Mattei and A. Quarta, 'Tre tipi di solidarietà. Oltre la crisi nel diritto dei contratti' *giustiziacivile.com* (2020), especially para 4, in which by living law '*parrebbe emergere un'idea di solidarietà proattiva che interviene come limite interno all'autonomia contrattuale*'; A. Lasso, 'Sostenibilità sociale e diritti fondamentali della persona', in D.A. Benítez and C. Fava eds,

generations.[54] Consequently, any conduct contrary to the obligations assumed triggers liability, which will be addressed differently according to whether there is an obligation between the damaging company and the injured party or whether the liability arises from an unlawful act, as defined under Art 2043 of the Italian Civil Code.

The set of functions just described, deduced from the will of the EU legislator, positively changes corporate responsibility, compelling companies to 'moralize' their activities and prioritize the objectives of social sustainability. In particular, the deterrent function becomes central because the compensatory remedy plays a key role in regulating the market through its application.

In light of this recent regulatory framework, it is clear that, although the Shell case would have come to the same conclusion, it would have had a different basis for argument.

Consider, for example, a manufacturing company that decides to base its production on pursuing ESG parameters. As part of its policy, the company commits to gradually reclaiming the creek where, for years, it has dumped its waste. To achieve this, the company pledges to both install modern purifiers and use highly sustainable materials (such as those locally sourced from nearby farms or previously used and recycled materials) and natural dyes (as outlined in Art 9, paras c), d) and e), and 10, letter d) of the European Parliament and Council Regulation 2020/852/EU).

By identifying potential risks of business activity and proactively adopting precautionary tools, the company demonstrates a commitment to sustainability that resonates with consumers. This choice results in attracting customers who value a company's attention to short- and long-term risks, both for the inhabitants near the enterprise and for all those who buy the product. It also highlights the profiles that are intertwined, varied, and range from ethical ones to those of responsibility.

Unlike in the past, failure to adhere to the code of conduct and implement the actions to improve the company's performance no longer constitute a mere 'reliance subject to protection'. Instead, it represents an absolute obligation, a source of liability based on the specific cause of the offence. The evolution of legislation no longer applies the Latin '*brocardo*' '*cuius commoda eius et incommoda*' but now focuses on setting production targets and establishing a duty of diligence. This duty obliges companies to

Sostenibilità: sfida o presupposto? (Milano: Cedam, 2019), 94; B. Bertarini, *Il principio di solidarietà tra diritto ed economia. Un nuovo ruolo dell'impresa per uno sviluppo economico inclusivo e sostenibile* (Torino: Giappichelli, 2020), 5.

[54] A. Pisani Tedesco, *Strumenti privatistici per la sostenibilità ambientale e sociale*, n 48 above, 33.

identify and prevent risks to reduce the costs of damages, thus encouraging the limitation of harmful events.[55]

As regards non-contractual liability, it is necessary to identify the key elements, namely the unlawful act, intent and fault, unjust damage and the causal link. It seems appropriate to exclude the approach whereby CSR is a strict liability. The element of fault is evident when there is a clear discrepancy between the actions a company should have carried out to pursue the 'social utility of economic initiative' and those it actually carried out. Equally evident is the commission of an offence caused by non-compliance with the social and environmental obligations assumed. More complex, however, is the etiological link. The burden of proof will fall on the injured party to demonstrate that the company failed to use natural dyes, sustainable fabrics or to install purification plants to reduce pollutant discharges into the nearby river.

Having clarified the reasons for the unlawfulness, it must be pointed out that the law to be applied differs depending on the injured party. Indeed, in this perspective, it is appropriate to distinguish between a general consumer, who is subject to consumer law, and the owner of the right of residence or a property located in the area adjacent to the manufacturing company that could invoke the application of Art 844 of the Italian Civil Code to seek the cessation of harmful emissions. Consider also the case where a company has commissioned a batch of T-shirts from a manufacturing company and takes action for the quality of the product, or simply a parent company taking action against a subsidiary for failing to comply with its group-wide sustainability obligations.

From the above considerations, it can be inferred that what has changed in the present case is precisely the internal component. In other words, the choices of the company that impact consumers, investors, and stakeholders must now be guided by good governance to achieve the minimum transition targets mandated by recent EU legislation. In the emerging scenario, responsibility no longer revolves around the directors' balancing of the company's interests, but rather centres on the company's failure to uphold its code of conduct. The legal significance of this breach gives rise to liability on the company's part. However, similar to the manufacturer's responsibility, the company could also be held responsible if, despite respecting its policy, it is not in line with the standards laid down in the legislation.[56]

[55] A. Addante, 'Responsabilità sociale dell'impresa', n 25 above, 7.

[56] For further information, see G. Glinski, 'Corporate Social Responsibility and Corporate Liability for Environmental Damage' *CEPRI Working Paper Series*, 5 (2020) where the author stresses that 'compliance with any CSR or environmental self-commitments, standards or best practices does not necessarily lead to a 'safe harbour' in the tort of negligence as the duty of care is normative rather than empirical and these self-

Therefore, it is necessary to balance the freedom of economic initiative (Art 41 of the Italian Constitution) with protected interests (whether monetary or not). In this context, it is crucial to distinguish between the 'purpose and subjective function of the activity and the objective and subjective intent of the entrepreneur' and the 'internal company social contracts and external social contracts between companies'. Disregard for norms, premeditation and, general transgressions play a vital role in this analysis.[57]

The latter, in conjunction with the principles and freedoms mentioned, must guide the judge in identifying the actual liability of the company.[58]

Given the importance of assessing each specific case in relation to the injured party involved and the discipline to be applied, it should be stressed that the remedy must be both compensatory and inhibitory. In other words, given the important interest of the community, it is necessary not only to ensure the cessation of harmful behaviour and the attainment of the fixed standards but also go beyond mere compensation of the damages to address the needs of the injured party.

V. Conclusions

In summary, it is possible to affirm how the essence of enterprise and capitalism is evolving. States and companies must both move towards creating a new capitalism, so-called 'sustainable capitalism'.

In this evolving landscape, it is necessary to immediately set up a company organizational framework from which it is possible to easily identify the responsible person and correctly evaluate the choices regarding purchasing, payments, and the production chain.[59]

Furthermore, the importance of the sanctioning function of liability must be measured according to the criteria of reasonableness and proportionality, taking into account the degree of culpability of those who have breached the obligations assumed and the actual damage caused. Moreover, the centrality of the function, as mentioned above, is justified not only by the fact that each damage is unique but, above all, because what is at stake is the violation of fundamental rights and freedoms. Especially for this last reason, it is insufficient to merely require the offending company to compensate for the damage. Instead, it seems more appropriate to consider applying a sanction to 'punish and discourage the

commitments or standards could be inadequately lax, outdated or inadequate in a given situation'.

[57] F. Quarta, *Risarcimento e sanzione nell'illecito civile*, n 52 above, 82.

[58] ibid 98.

[59] V. Buonocore, 'Impresa (diritto privato)', n 40 above, 48.

recurrence of the same violation'.[60] Moving beyond a purely restorative function appears to be of fundamental importance because, in addition to ensuring the effectiveness of environmental protection, it guarantees the principle of constitutional solidarity.

Several years ago, the Italian Constitutional Court[61] also ruled in this direction, stressing that in the case of harm to human health or the environment, civil liability provides 'not only to restore the damaged person's assets but also to prevent and sanction the wrongful act. Civil liability, therefore, can simultaneously fulfil preventive and sanctioning functions'.[62]

When analysing the legal systems of Common Law countries, and in particular in the United States, it is possible to see how punitive damages have the objective of deterring antisocial, malicious, or harmful activities by imposing an 'ultra-compensatory civil sanction'. This sanction is proportionate, obviously, to the degree of offence suffered.[63] It is, therefore, possible to note the common thread that links the two systems or shared focus on discouraging activities that negatively affect society.

In both systems, the attention given to corporate activity highlights the centrality of sustainability as a balance between economic, environmental, and social interests. Although this similarity differs, the rules governing the recognition of these functions differ. While the compensatory function is rooted in our legal system, the same cannot be said of the sanction function,[64] which is less consistent and cannot be directly compared to other legal systems, such as, for example, that of the United States.[65]

Compared to the past, the responsibility placed on directors becomes explicit if social and environmental interests are not considered or respected in company management. This responsibility is part of the general duty of care of directors.[66]

[60] F. Quarta, *Risarcimento e sanzione nell'illecito civile*, n 52 above, 330.

[61] This refers to Corte costituzionale 17 December 1987 no 641.

On the point, see M. Zarro, *Danno da cambiamento climatico e funzione sociale della responsabilità civile* (Napoli: Edizioni Scientifiche Italiane, 2022), 159.

[62] F. Quarta, *Risarcimento e sanzione nell'illecito civile*, n 52 above, 231.

[63] ibid 246. Also see M. Zarro, *Danno da cambiamento climatico e funzione sociale della responsabilità civile*, n 61 above, 161.

[64] In this matter, see C. Scognamiglio, 'I danni punitivi e le funzioni della responsabilità civile' *Il corriere giuridico*, 918 (2016).

[65] See P. Mogin, 'Why Judges, Not Juries, Should Set Punitive Damages' *The University of Chicago Law Review*, 65 (1998); M.I. Krauss, 'Markets and the Law. Punitive Damages and the Supreme Court: A Tragedy Five Acts' *George Mason Law & Economics Research Paper No. 07-34* (2007). In jurisprudence, however, there are several cases in which the US Courts have analysed 'punitive damages'. To deepen understanding in this sense, see F. Quarta, *Risarcimento e sanzione nell'illecito civile*, n 52 above, para 33.

[66] S. Rossi, 'Il diritto della Corporate Social Responsibility', n 5 above, 778.

The judgment of adequacy and reasonableness cannot 'limit' the development and well-being of the person to the market and its rules. Law fulfils the fundamental role of dictating the 'limits and [the] corrections' necessary for the pursuit of 'wealth and its distribution' but is always attentive to the pivotal value of the unitary order.[67] In other words, the market represents the instrument and the space through which contractual autonomy finds its expression, and, for this reason, it needs precise rules that 'legitimize and regulate it'. Therefore, economic initiative must be conducted in a manner that respects the environment in which the person, the supreme value of the order, can develop.

In conclusion, it must be pointed out that social utility 'becomes a parameter to weigh the merit of entrepreneurial action and [the environment], and the person and human dignity become a limiting factor'[68] for the freedom of economic initiative and, therefore, the market and all the activities connected with it. Ultimately, it can be said that the balance that must be made also concerns the relationship between 'productivity' and sustainability, where doctrine, jurisprudence,[69] and lawmakers are now convinced that 'selfish profit' must take a step back from 'just solidarity'.[70]

[67] See P. Perlingieri, *Il diritto civile nella legalità costituzionale secondo il sistema italo-europeo delle fonti*, n 7 above, 199 in which the author stresses that: '*la società non è riducibile al mercato e alle sue sole regole; il diritto, al quale spetta la regolamentazione della società, indica limiti e correttivi, dettati non soltanto dal perseguimento della ricchezza e dalla sua distribuzione, ma da valori e interessi di natura diversa*'. From the same author, see also G. Perlingieri, 'Mercato, solidarietà e diritti umani' *Rassegna di diritto civile*, 84, 91-93 (1995). Finally, see C. Scognamiglio, 'I danni punitivi e le funzioni della responsabilità civile', n 64 above, 919 in which the author stresses that '*la fattispecie non deve mai essere considerata singolarmente, ma occorre guardare l'intero contesto in cui essa è collocata*'.

[68] P. Perlingieri, *Il diritto civile nella legalità costituzionale secondo il sistema italo-europeo delle fonti*, n 7 above, 277.

[69] Finally, consider the possibility given to citizens to bring an action before the European Court of Human Rights in the event of a market operator causing damage resulting from incorrect social self-regulation. See Eur. Court H.R., *Hatton and others* v *Regno Unito*, Judgment of 7 November 2000. See also Eur. Court H.R., *Moreno Gomez* v *Spagna*, Judgment of 16 November 2004.

[70] To learn more, see E. Caterini, *Sostenibilità e ordinamento civile*, n 3 above, 96.

The Involvement of Third Parties in Sustainable Contracting Processes

Gianna Giardini*

Abstract

Achieving the goals outlined in the UN 2030 Agenda will require new legal infrastructures to regulate social reality. Private autonomy plays a central role, but legal practitioners are called upon to rethink the traditional legal categories. The time has come to discuss the implementation of legal models that go beyond the relativity of the effects of the contract, considering the interests of third parties that may be affected by private contractual powers. In a new scenario, based on a logic of sharing and care, third parties must be concretely involved through consultation and information processes, and they must have a right of action if the right to be consulted is infringed. A reinterpretation of the general clause of good faith can drive the change. The purpose of this paper is to redefine a sustainable legal order in which the freedom of contract takes care of people and the environment.

Keywords

Sustainable Development, Private Autonomy, Third Party Beneficiary Clause, Contract as an Ecosystem, Information, Good Faith.

I. Introduction

Contemporaneity heralds a new legal sensibility that aims at a re-interpretation of the traditional institutions of civil law. The purpose of this paper is to redefine a sustainable legal order in which the freedom of contract takes care of the environment and of the present and future generations.

Scientific evidence has indeed revealed the unsustainability of the development model of the last two centuries. The result is that the Earth has reached its *tipping point*,[1] due to the extraction of

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resources, the accumulation of waste and the alteration of natural processes.

According to the IPCC (Intergovernmental Panel on Climate Change) 2022 report, the average temperature of the planet has risen by 0.89°C since the beginning of the 20th century, while sea levels have risen by an average of 19cm. Carbon dioxide (CO_2) is thought to be the largest contributor to the ongoing change among greenhouse gases. The concentration of carbon dioxide in the atmosphere has increased by more than 20% since 1958 and by about 40% since 1750. The report concludes that human activities are responsible for 95% of the observed global warming since 1950. Projections for the future, based on mathematical models, also indicate that temperatures will continue to rise.[2]

The drama predicted by the IPCC has also been taken up by the General Assembly of the United Nation, which, on 29 March 2023, almost a decade after the adoption of the General Assembly resolution setting out the Sustainable Development Goals (UN Agenda 2030), adopted a resolution requesting the International Court of Justice to give an advisory opinion on the legal consequences for States where they, by their acts and omissions, have caused significant harm to the climate system and to the environment.[3]

Meanwhile, the European Court of Human Rights, ruling on the outcome of a case brought by a group of elderly women against Switzerland, has declared the State responsible for damage caused by climate change. In particular, the ECtHR confirmed that every State has a positive obligation to ensure the protection of the right to the private life of individuals under Art 8 of the Convention. In this context, the primary obligation of the State is to adopt and

'Extension of the Number of Research Doctorates and Innovative Doctorates for Public Administration and Cultural Heritage'.

[1] The Intergovernmental Panel on Climate Change (IPCC) defines tipping points as 'critical thresholds in a system that, when exceeded, can lead to a significant change in the state of the system, often with an understanding that the change is irreversible'. More information is available at Chapter 3 – Global Warming of 1.5 °C (ipcc.ch).

[2] IPCC, 'Summary for Policymakers', in Id, *Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (2022).

[3] The resolution was submitted by the Republic of Vanuatu, an archipelago in the Pacific Ocean. Weather events such as tropical storms, flooding and coastal erosion are becoming more frequent and intense. Rising sea levels threaten the survival of islands and coastal communities. The full document is available at The General Assembly of the United Nations requests an advisory opinion from the Court on the obligations of States in respect of climate change (icj-cij.org).

effectively implement regulations and measures to mitigate the current and potentially irreversible effects of climate change.[4]

The desperate conditions of the planet have been identified as the consequence of the replacement of the holistic conception of the universe with a mechanistic view of reality.[5]

The former considers the planet as a common good and embraces a theory that generally tends to direct human action to respect the ecological needs of nature and social relations. The latter is rooted in the technocratic paradigm developed with the scientific and industrial revolutions of the 16th and 17th centuries, according to which nature is nothing more than a 'machine' that can be dominated by human beings and, as such, exploited to satisfy their needs. Such a scenario is also the consequence of the dominance of legal positivism in the field of law and the emphasis it places on human dominion over nature, which is seen as a 'property' or a 'commodity' to be exploited by extracting value.[6]

Unfortunately, the recent Covid-19 pandemic revealed the fragility of the Cartesian paradigm of predicting and controlling nature, from which mechanistic theory draws its inspiration.

In this scenario, the *twin transition* is perceived as the global solution.[7] The fight against climate change and the path to sustainability undoubtedly come through the ecological and digital transition. The two transitions are inextricably linked, and their interrelation can lead to peace, prosperity and well-being for the environment and people. Indeed, modern technologies have become

[4] Eur. Court H.R. (GC), *Verein KlimaSeniorinnen Schweiz and Others* v *Switzerland* App no 53600/20, Judgment of 9 April 2024. The case concerned a complaint by four women and a Swiss association, Verein KlimaSeniorinnen Schweiz, whose members are all elderly women concerned about the impact of global warming on their living conditions and health. They consider that the Swiss Confederation had failed to fulfil its 'positive obligations' under the Convention in relation to climate change. There had been critical gaps in the process of establishing the relevant domestic regulatory framework, including the failure of the Swiss authorities to quantify, through a carbon budget or otherwise, national limits on greenhouse gas (GHG) emissions. Switzerland had also failed to meet its previous greenhouse gas emission reduction targets. There had therefore been a violation of Art 8 of the Convention. The Court held that Art 8 of the Convention includes a right to effective protection by the public authorities against the serious adverse effects of climate change on life, health, well-being and quality of life.

[5] F. Capra and U. Mattei, *The Ecology of Law. Toward a Legal System in Tune with Nature and Community* (Oakland: Berrett-Koehler Publishers, 2015), 29.

[6] ibid. On this point, see also F. Parente, 'Questione ambientale ed ecologica integrale', in Id, *Territorio ed eco-diritto: dall'ecologia ambientale all'ecologia umana* (Napoli: Edizioni Scientifiche Italiane, 2022), 7-18.

[7] On the matter, see L. Floridi, *Il verde e il blu. Idee ingenue per migliorare la politica* (Milano: Raffaello Cortina Editore, 2020).

indispensable for sustainability.[8] Data analysis supports this argument. The World Economic Forum estimates that digital technologies can reduce global greenhouse gas emissions by up to 20%.[9] PwC considers that 70% of the UN Sustainable Development Goals could be achieved by emerging technologies such as AI, blockchain and the Internet of Things (IoT).[10]

However, the dual transition has its downsides.

Contemporary research in the field of computer science shows that technology has a serious impact on the environment in terms of emissions.[11] On the other hand, it is well known that the construction of digital devices requires a huge amount of rare materials, the extraction of which takes place mainly in parts of the world where there is no respect for social rights and where the exploitation of women and children is systematic.[12]

The litigation that has developed around these issues is an unmistakable sign of this tension. For example, in December 2019, an international advocacy group filed a lawsuit in the Federal District Court of Columbia on behalf of a group of Congolese children against a number of tech giants – Apple, Microsoft, Alphabet, Dell and Tesla – for profiting from and abetting the cruel and brutal use of young children in the Democratic Republic of Congo to extract cobalt, a key component of all rechargeable lithium-ion batteries used in the electronic devices produced by these companies. At first instance, the case was dismissed for lack of

[8] See J. Binder, M. Wade, 'Digital Sustainability for a Better Future' *Stanford Social Innovation Review* (2024), according to which 'digital tools can boost organizational performance, and, if used in the right way, can also help to protect the planet and improve people's lives'. Digital technologies can support sustainability objectives in three ways: by providing visibility and transparency, by actively improving outcomes, and by expanding benefits across organizations and industries.

[9] G. Manju, K O'Regan and A. Holst, 'Digital Solutions Can Reduce Global Emissions by Up to 20%. Here's How' *World Economic Forum*, 23 May 2022.

[10] PwC, 'Over Two-Thirds of Sustainable Development Goals Could Be Bolstered by Emerging Tech, Including AI and Blockchain' (17 January 2020).

[11] L. Belkhir and A. Elmeligi, 'Assessing ICT Global Emissions Footprint: Trends to 2040 & Recommendations' 177 *Journal of Cleaner Production*, 448-463 (2018). According to these authors, the future impact of ICT on global emissions in 2040 is estimated at 14%. As a result, they encourage 'some actionable policy and management recommendations on how to mitigate and curb the explosive greenhouse gas footprint of ICTs through a combination of renewable energy use, tax policies and alternative business models'.

[12] See European Parliament and Council Regulation 2024/1252/EU, through which the European Union aims to establish a common framework to ensure access to secure and sustainable supplies of critical raw materials, for technologies for the green and digital transition. More information is available at European Critical Raw Materials Act – European Commission (europa.eu).

jurisdiction. The appeal upheld the first instance ruling. Despite the outcome, the matter of the case is a clear sample of the issues to be faced by legal practitioners.[13]

Combating climate change and overcoming the current crises of modernity therefore require a rethinking of the legal order, which must be based on a logic of sharing and care, and a new interpretation of legal relations, including private ones, through a sensitivity that places the community and the environment at the centre.[14]

The legal order becomes the most powerful means by which an interpretation of the world is enacted and translated into social action. Law explains how new values can be made concrete. In fact, law is not a structure separate from social reality, but is a phenomenon expressing the culture of social reality. Law is a practical culture in the sense that it corresponds to that reality which is the specific way in which human beings conduct their existence in the real world.[15]

In the field of civil law, the contract becomes the legal infrastructure capable of reshaping the market and society. As such, it must be designed to meet the objectives of sustainable development.[16] This requires innovative contributions from both academics and practitioners to renew the criteria of interpretation.

The principle of good faith provides guidance in this regard. In determining the meaning of a contractual rule, good faith implies that an interpretation that strikes a fair balance between the expectations of the parties should be favoured. This leads to the question of whether, in the context of sustainability, an interpretation that considers the interests of third parties in

[13] An in-depth analysis of the case is available at *John Doe I et al* v *Apple, Alphabet (Google), Dell, Microsoft, and Tesla* – IRAadvocates (internationalrightsadvocates.org)

[14] Cf. F. Capra and U. Mattei, *The Ecology of Law*, n 5 above, 227. The authors propose 'ecological education': 'it is indispensable to have new reference ideals capable of enticing ecological behaviour and an innovative legal order created by the widespread resistance of communities and networks of relations'. On the need for environmental education, see also F. Parente, 'Questione ambientale', n 6 above.

[15] Thus, A. Falzea, 'La prassi nella realtà del diritto', in *Teoria generale e storia del diritto. Studi in onore di Pietro Rescigno* (Milano: Giuffrè, 1998), 409; P. Perlingieri, 'La grande dicotomia diritto positivo – diritto naturale', in Id, *Interpretazione e legalità costituzionale. Antologia per una didattica progredita* (Napoli: Edizioni Scientifiche Italiane, 2012), 15-21.

[16] In this sense, see H.-W. Micklitz, 'Discussion Society, Private Law and Economic Constitution in the EU', in G. Grégoire and X. Miny eds, *The Idea of Economic Constitution in Europe* (The Netherlands: Brill, 2022) according to whom the regulatory policies implemented by the European Union show a prevailing tendency of the EU to give private law, and in particular private autonomy, prime importance for the achievement of policy objectives.

addition to those of the contracting parties should be preferred. From a legal perspective, these third parties represent the complex nature of the normative concept of sustainability. Even if they are not signatories to the contract, they sometimes have rights and obligations that are relevant to the behaviour associated with the sustainability clause[17] and that may be subject to legal challenge.[18]

It is therefore no coincidence that a debate has arisen on the appropriateness of including a third-party beneficiary clause in sustainability contracts.

Given this, the question posed in this paper is the following: Is there a legal ground for recognising the legitimacy of a contractual clause which has a protective effect vis-à-vis third parties?

To answer this question, the first part of the paper is devoted to reconstructing the regulatory framework established by Europe and the United States on the due diligence obligations for sustainability purposes, focusing on the scientific debate that has emerged among scholars on the possibility of including a third-party beneficiary clause in supply chain contracts. The second part of the paper focuses on identifying the legal basis that could justify the inclusion of such a clause, finding interesting points of discussion in the theory of the contract as an ecosystem developed by the American General Theory. The last part of the paper deals with the role of information in the contracting process, as a legal good that can be derived from a contractual relationship characterised by good faith.

II. Business and Sustainability in EU and US Policies

In the current European and international context, companies can act as a driving force in strengthening a culture of sustainability by using environmental resources rationally, managing material resources in the best possible way, and developing new production and consumption models inspired by collective interest in

[17] Y. Quiennec, 'Sustainable Contracts. Concept's Outlines and Exploration Tracks', in I. Daugareilh ed, *Responsabilités de l'entreprise transnationale et globalisation de l'économie* (Brussels: Bruylant-LGDJ, 2010) defines sustainable contracts: 'All contracts which object and execution terms combine economic, social and environmental aspects, with the purpose of supporting fundamental rights and environmental protection'. The expression of 'sustainable contract' naturally results from the concept of sustainable development as defined by the United Nations. The sustainable contract represents a juridical translation of sustainable development objectives.

[18] Thus, F. Lubian, 'La sostenibilità come clausola generale: una prospettiva comparata' *La nuova giurisprudenza civile commentata*, 3, 737 (2024).

preserving the environment, ecosystems and biodiversity, and protecting human and social rights.[19]

Economists hypothesize a new business model capable of combining shareholders' interest in profit with the company's ability to spread innovation and new awareness for the benefit of society. Companies needs to orient their production towards business models that create 'shared value'[20] and must therefore make strategic choices and adopt operational practices aimed at improving competitiveness, while at the same time promoting environmental, social and economic benefits in the community in which they operate. The creation of shared value aims to strengthen the links between 'positive economic results' and 'social well-being' and requires the maintenance of a relationship between business actions and the environmental and social reference context.

Legislative policies in Europe and the United States show the lengths to which those States are willing to go to achieve these goals.

In Europe, the final adoption of the Directive on Corporate Due Diligence for Sustainability on 24 April 2024,[21] the date of the anniversary of the collapse of the Rana Plaza textile factory,[22] completes the path by which the European Union aims to make mandatory the duty of due diligence for sustainability, with the ambition of extending the impact of its regulatory policy to third countries.[23]

[19] On this point, see C. Mio, *L'azienda sostenibile* (Rome: Laterza, 2021).

[20] The concept of shared value has been elaborated by M.E. Porter and M.R. Kramer, 'Creating Shared Value: How to Reinvent Capitalism, and Unleash a Wave of Innovation and Growth' 1 *Harvard Business Review*, 62-77 (2011); see on this point, also, C. Mio, n 19 above.

[21] European Parliament and Council Directive 2024/1760/EU of 13 June 2024.

[22] Rana Plaza was a building on the outskirts of Dacca that, from 2007, had housed several local textile companies producing for various international brands. On 24 April 2013, the workshops at Rana Plaza should have been closed, as the building had been declared unsafe twenty-four hours earlier by a Bangladesh Labour Inspector, who had been called to inspect the building by workers who had noticed cracks in the walls on several floors. This did not happen. While the first and second floors were evacuated, the owners of the factories on the 3rd to 8th floors ignored the inspectors' recommendations and decided to continue working. Rana Plaza collapsed on 24 April 2013, killing more than 1,100 people. The event is remembered as the worst tragedy in the history of the fashion industry. For more on the Rana Plaza tragedy and the need for supply chain governance, see J. Brian and S. Vinod, 'The Effect of the Rana Plaza Disaster on Shareholder Wealth of Retailers: Implications for Sourcing Strategies and Supply Chain Governance' 49 *Journal of Operations Management*, 52-66 (2017).

[23] The Brussels Effect refers to the influence, albeit indirect, of the regulations created by the European Union at the global level. On this subject, see A. Bradford, *Effetto Bruxelles. Come l'Unione Europea regola il mondo* (Milano: Franco Angeli, 2021).

The Directive is the EU's response to civil society's call for greater corporate accountability by requiring companies to implement a system of value chain management to prevent and mitigate negative impacts of their production activities on human and social rights and the environment.[24]

The aim of the Directive is to ensure fair competition in the internal market by promoting responsible business conduct and the systematic integration of sustainability principles into the values that underpin business decisions. The Directive also aims to give legal certainty to corporate responsibility, by clarifying the legal consequences of liability.

Even in the United States, although there is no general legislation on due diligence, there are legislative interventions on sustainability and the protection of human rights. This is the case of the Fashion Sustainability and Social Accountability Act ("Fashion Act"),[25] which is currently being adopted by the State of New York, and the California Supply Chain Act, which requires companies with a turnover of more than USD 100 million to disclose to consumers the measures taken to eliminate slavery and human trafficking from their supply chains. As the doctrine states, the disclosure requirement is intended to influence consumer behaviour. For this reason, the legislation relies on reputational ranking rather than the

[24] On this point, see C.G. Corvese, 'La sostenibilità ambientale e sociale delle società nella proposta di Corporate Sustainability Due Diligence Directive (dalla insostenibile leggerezza dello scopo sociale alla obbligatoria sostenibilità della due diligence)' 3 *Banca Impresa Società,* 394 (2022) ; A. Bonfanti and M. Fasciglione, 'The Future European Directive on Corporate Sustainability Due Diligence: An Introduction' 3 *Human Rights and International Law*, 655-659 (2023); S. Deva, 'Mandatory Human Rights Due Diligence Law in Europe: A Mirage for Rightsholders?' 36 *Leiden Journal of International Law*, 389-414 (2023); M.G. Bastos Lima and A. Schilling-Vacaflor, 'Supply Chain Divergence Challenges a "Brussels Effect" from Europe's Human Rights and Environmental Due Diligence Law' *Global Policy*, 1-16 (2024); C. Patz, 'The EU's Draft Corporate Sustainability Due Diligence Directive: A First Assessment' 7 *Business and Human Rights Journal*, 291-297 (2022); U. Tombari, 'Riflessione sullo "statuto organizzativo" dell'impresa sostenibile tra diritto italiano e diritto europeo' *Analisi giuridica dell'economia*, 1 (2022). On the concept of due diligence, see J. Bonnitcha and R. McCorquodale, 'The Concept of Due Diligence in the UN Guiding Principles on Business and Human Rights' 3 *The European Journal of International Law* (2017). On the European path towards sustainability, read R. Ibba, 'The Introduction of Obligations Concerning ESG Factors at the EU Level: From Directive 2014/95 to the Proposal for a Directive on Corporate Sustainability Due Diligence' 3 *Bank Stock Exchange Securities*, 433 (2023).

[25] See K. Lawrence, 'The Future of Fast Fashion: How New York's Proposed Fashion Sustainability Legislation Could Change the Industry' *Sage Business Cases* (2023). If passed, New York's recently proposed Fashion Sustainability and Social Accountability Act is poised to be the first regulation of its kind in making the fashion industry's supply chains more sustainable.

deterrent effect of the sanction.[26] Of particular interest is also the Slave-Free Business Certification Act of 2020, S. 4241, 116th Cong. (2020), a bill introduced in the Senate that addresses human rights in supply chains and introduces penalties for supply chains with relationships with China that may involve the use of forced labour.[27] On the other hand, it should also be noted that due diligence is an issue of particular concern to the US authorities. In fact, US Customs and Border Protection recommends its implementation even in the absence of a legally binding obligation.[28]

1. Supply Chain Contracts and the Third-Party Beneficiary Clause: The European Perspective

A relevant issue on which the law is being questioned is the appropriateness of recognising an active role in the negotiation of contracts for third parties potentially involved in the mechanisms of the value chain, i.e., stakeholders, workers, communities.

The idea of including clauses on the rights of third parties in sustainability contracts is an issue that has been taken up by European and American professional and academic groups that have taken on the task of giving concrete content to sustainability clauses, implementing an approach that promotes cooperation, information sharing and fairness in relationships.[29]

It should be emphasised that, in Europe, the Due Diligence Directive explicitly provides for broad stakeholder participation. One of the key aspects of the new legislation is that the process of designing and implementing the duty of care involves the participation of interested parties.[30]

[26] On this subject, read the insight of S.W. Gamble, 'A Corporate Human Rights Due Diligence Law for California' 4 *UC Davis Law Review*, 2421-2462 (2022).

[27] See Xinjiang Supply Chain Business Advisory, 'Risk and Consideration for Businesses with Supply Chain Exposure to Entities Engaged in Forced Labour and Other Human Rights Abuse in Xinjiang' (2020).

[28] In this sense, the U.S. Customs and Borders Protection, Green Trade Strategy (2022) aims to 'help develop and enforce a cleaner, more sustainable international trading environment through the agency's influence on global supply chain practices and enforcement of laws against environmental crimes'.

[29] Soft law instruments, while not creating binding rules, play a key role in defining the content of sustainability contracts in the supply chains of goods and services, creating a flexible discipline capable of adapting to the rapid evolution that characterises certain sectors of economic and social life. See, in this sense, R. Natoli, 'Il diritto privato regolatorio' *Rivista della regolazione dei mercati*, 1 (2020). On the work of study groups, see D. Schönfelder, B. Braun and M. Scheltema, 'Contracting for Human Rights: Experiences from the US ABA MCC 2.0 and the European EMC projects' *Nova Centre on Business, Human Rights and the Environment Blog* (2022).

[30] See M. Giovannone, 'Responsabilità, informazione e partecipazione nella proposta di direttiva europea sulla due diligence' 3 *federalismi.it* (2024).

In Europe, the European Model Clauses Drafting Group notes that the autonomy of the parties in defining the content of the contract gives them the freedom to include a contractual clause recognising rights in favour of third parties.[31]

It therefore proposes the inclusion of the following clause in sustainability contracts:

> 'The Parties to this Agreement acknowledge and agree that the terms of this [Agreement][Remediation Plan][Schedule Q] are intended to benefit and protect not only the Parties but also persons directly impacted by (1) Supplier's and/or Buyer's activities performed under this [Agreement][Remediation Plan][Schedule Q] and (2) activities by subsuppliers that the Supplier contracts with to perform under this [Agreement][Remediation Plan]. Such persons include but are not limited to workers, landowners, property owners, those residing, working, and/or recreating in proximity to supply chain activities who are injured or suffer damages due to Adverse Impacts [breach of Schedule Q], including survivors of those killed or disabled. Such persons are intended third party beneficiaries to this [Agreement][Remediation Plan][Schedule Q].
>
> 1.2. All intended third-party beneficiaries of this [Agreement][Remediation Plan][Schedule Q] have the right to enforce this [Agreement][Remediation Plan][Schedule Q] against Parties in any court or tribunal that has jurisdiction over the [Buyer/Supplier or Agreement/Remediation Plan/Schedule Q]'.

Essentially, the contractual clause identifies third parties as recipients of the effects of the prevention and correction plans and of the agreements that constitute their implementation and gives them the right to sue for breach of contract.

On the other hand, the Study Group cannot overlook the fact that the inclusion of such a clause could conflict with the national laws of certain countries of the European Union. Indeed, if Germany recognises the existence of a contract with protective effects vis-à-vis third parties, the same legal interpretation is of limited

[31] The first draft, consultation version of the European Model Clauses (EMCs) was published in October 2023. Following an initial consultation period, a second draft consultation version of the EMCs is currently under development and scheduled to be released for further input in the summer of 2024. A final version of the EMCs is expected to be published by December 2024-January 2025.

application in Italy or France, where the principle of the relativity of the effects of the contract prevails.[32]

International treaties and EU legislation confirm that it makes sense to include a clause in contracts that recognizes third party rights. For example, Art 9, para 3 of the Aarhus Convention already grants third parties the right of access to information, the right to participate in environmental decision-making and the right to appeal if these rules are not respected.

The European Court of Justice moved in this direction when, in its judgment no 873/19 of 8 November 2022, it recognised that a German environmental association had a concrete interest in challenging an act of the administrative authority which had granted an EC type-approval to a well-known car manufacturer, also German, in breach of the prohibition of the use of manipulation systems which reduce the effectiveness of the emission control system.

For the purposes of the discussion, it is important to note that the Aarhus Convention explicitly refers to disputes concerning 'acts of omission by private parties' which infringe national environmental legislation. In other words, an affected party can sue against acts of private autonomy, to which it is not party, if these acts conflict with national environmental law.

Regulation 2024/1735/EU (Net Zero Industry Act) also moves in this direction. Art 15, para 4 explicitly states that all dispute resolution and redress procedures related to net-zero strategic projects before national courts, including mediation or arbitration, must respect the normal rights of defence of individuals or local communities.

In essence, overcoming the relativity of interests is confirmed by the attribution of a right of action to third parties.

2. Supply Chain Contracts and the Third-Party Beneficiary Clause: The US Perspective

For the American Bar Association, third party rights are a critical issue, but compared to Europe, the ABA takes a more pragmatic stance, by denying the right on the assumption that there are significant commercial and practical obstacles to granting such third-party rights, although it points out that the final decision could

[32] Indeed, Art 1200 of the French Civil Code rules that contractual rights may only be exercised between parties. On this point, see M. Feola and A. Procida Mirabelli Di Lauro, 'Obblighi di protezione ed effetti del contratto rispetto a terzi', in M. D'Arienzo ed, *Diritto come scienza di mezzo: studi in onore di Mario Tedeschi* (Cosenza: Pellegrini, 2018), 2003-2067.

be influenced by the outcome of discussions on a possible binding treaty on business and human rights in America and by legislative developments in the European Union.[33]

Accordingly, it proposes a contractual clause as follows:

> 'Third-Party Beneficiaries. All buyers and suppliers in the supply chain have the right to enforce the relevant provisions relating to the human rights protections set forth herein and in Schedule P [and Schedule Q] and privity of contract is hereby waived as a defence by Buyer and Supplier provided, however, that there are otherwise no third-party beneficiaries to this Agreement. Individuals or entities, including but not limited to associations, workers, land owners, property owners, those residing, working and/or recreating in proximity to supply chain activities and any individual who is injured or suffers damages due to a violation of human rights have no rights, claims, causes of action or entitlements against Buyer or Supplier arising out of or relating to this Agreement, Schedule P, [Schedule Q] or any provision hereunder. [There are no third-party beneficiaries to this Agreement]'.[34]

A position, that of the ABA, which, however, seems to clash with the prevailing case law of the American courts, which recognise that a contract may produce effects vis-à-vis third parties extraneous to the settlement and confer on these third parties the right to sue in the case of an infringement of the right that the contract was

[33] See D.V. Snyder and S.A. Maslow, 'Balancing Buyer & Supplier Responsibilities Model Contract Clauses to Protect Workers in International Supply Chains' *American University, WCL Research Paper No 2021-15* (2021). The ABA Working Group Model Contract Clauses 2.0, also known as MCCs 2.0, translates the UN Guiding Principles on Business and Human Rights (UNGPs) and the OECD Due Diligence Guidance for Responsible Business Conduct (OECD Guidance) into contractual obligations that can be included in supply contracts for the manufacture and sale of goods. The UN Guiding Principles on Business and Human Rights (UNGPs) are based on the fundamental principle that 'Businesses should respect human rights. This means that they should avoid violating the human rights of others and should address adverse human rights impacts with which they are associated. (...) Addressing adverse human rights impacts requires taking appropriate measures to prevent, mitigate and, where necessary, remedy them'. For the full text, see United Nations, *Guiding Principles on Business and Human Rights* (2011). The OECD Due Diligence Guidance for Responsible Business Conduct provides practical assistance to companies in implementing the OECD Guidelines for Multinational Enterprises by explaining the due diligence recommendations and related provisions in plain language. The guide provides additional explanations, tips and illustrative examples of due diligence. For the full text, see OECD, *OECD Due Diligence Guidance for Responsible Business Conduct* (2018).

[34] On this subject, see again D.V. Snyder and S.A. Maslow, n 33 above, and in particular footnote 101.

intended to protect. Third-party rights seem to have been well established at common law as early as the 17th century. Indeed, even in situations where the courts of law were reluctant to allow a third-party beneficiary to sue, the courts of equity had no hesitation in allowing such an action where it would serve justice, stating on several occasions that 'the right of a party to sue for an unsealed promise made to another person for his benefit, though very controversial, is the prevailing rule in this country'.[35]

III. The 'Contract as an Ecosystem' Theory and Its Suitability for the Due Diligence Directive

To answer the question posed, the theory of the 'contract as an ecosystem' appears to be of considerable interest.[36]

The thesis starts from the consideration that third parties play an important role in trade. Third parties (e.g., networks of associations, trade associations and communities) produce positive externalities by reducing the market transaction costs, by creating social preferences for pro-contractual behaviour, by improving information flows and by selecting potential exchange participants through ethical codes.[37] At the same time, it is worth noting how, in

[35] *Health and Hospital Corporation of Marion County* v *Talevski*, 599 U.S. 166 (2023), C.C. Bridge et al, 'Brief of Contract Law and Legal History Professors As Amici Curiae in Support of Respondent' (September 2022).

[36] The concept of the contract as an ecosystem was elaborated by K. Parella, 'Protecting Third Parties in Contracts' 58 *American Business Law Journal*, 327-386 (2021), according to whom the contract is not just a bilateral agreement between two parties; it exists within a broader ecosystem. This ecosystem involves not only the signatories to the formal contract but also a rich array of institutions maintained by third parties-entities that are not direct participants in the contract.

[37] The theory of the contract as ecosystem expands the contents of the macroeconomic concept of externalities. According to S. Kahraman, 'Externalities (Economics)', in S. Idowu, R. Schmidpeter, N. Capaldi, L. Zu, M. Del Baldo and R. Abreu eds, *Encyclopedia of Sustainable Management* (Cham: Springer, 2021), 'an externality or external economy is a microeconomic term referring to a cost or benefit when the consumption or production decisions of goods and services cause an impact on third parties which are not reflected in the market price. In economic activity, producer (supply side of the economy) and consumer (demand side of the economy) are the first and second parties, while third parties refer to other economic agents or units which are indirectly affected'. For her part, K. Parella 'Protecting Third Parties in Contracts' n 36 above, develops her reasoning from the possibility that third parties, instead of merely suffering the positive or negative effects of an externality, may themselves with their own behaviour produce externalities and influence the market. Hence, the need to recognise an active role in the formation of contracts that are an expression of the market. See in this sense P. Perlingieri, 'Le insidie del nichilismo giuridico. Le ragioni del mercato e le ragioni del diritto' *Rassegna di diritto civile*, 1, 3 (2005). In this sense, see also A. Schwartz and R.E. Scott, 'Third-Party Beneficiaries and Contractual Networks' 2 *Journal of Legal Analysis*,

practice, contracts entail the risk of harm to these third parties through a series of negative externalities, including damage to the environment and to social and human rights.[38]

In other words, third parties play an institutional role in the management of the contract.[39] Accordingly, 'contracting parties must take into account negative externalities to third parties when the contracting parties could reasonably foresee that performance of the contract would create a risk of physical harm to these third parties'.[40] In essence, the assessment of the interests of third parties must be considered at the initial stage concerning the 'reasonable design' of the contract.[41]

This theory advocates that third parties such as workers, consumers and local communities have a place at the negotiating table when buyers and suppliers design supply contracts. In this scenario, a prominent role is reserved for 'consultation': 'contracting parties may be better off if they stopped imagining what third parties would want and instead asked them directly through consultations or a role in the bargaining process'.[42] Moreover, this theory supports *ex post* legal remedies.[43] If one accepts the existence of an obligation to take third parties into account when drawing up a contract, it is desirable to provide for sanctions in the event of failure to comply with this obligation. Indeed, the provision of a penalty has a deterrent effect and can therefore positively influence the behaviour of the contracting parties.

The critical analysis of the Due Diligence Directive shows how Europe has adopted the approach theorised in the American literature. In this sense, it should be noted that the EMCs seek 'to

325-361 (2005), who adopt an approach they define as functional: 'parties that contract with each other – the merchant and Bank B_1 in the example above – we refer to below as "contract members". Affected non-parties are in the relevant network – they are "beneficiary members" – if there is a good reason to include them. A good reason should derive from what we believe is the appropriate state goal: to facilitate the founding and performance of efficient networks'.

[38] As noted in the literature, these externalities are particularly evident in global supply chain contracts, by which is meant a 'full range of activities that firms, farmers and workers carry out to bring a product or service from its conception to its end use, recycling or reuse'. In this sense, see S. Ponte, G. Gereffi and G. Raj-Reichert, 'Introduction', in S. Ponte, G. Gereffi and G. Raj-Reichert eds, *Handbook on Global Value Chains* (Cheltenham: Edward Elgar, 2019).

[39] K. Parella, 'Protecting Third Parties in Contracts', n 36 above, 372. In the article, this principle is proposed as 'a new duty that borrows elements from both contract and tort law'.

[40] ibid 337.

[41] ibid 337.

[42] ibid 383.

[43] ibid 383.

implement more balanced approaches in supply chains, with clauses that encourage cooperation, information sharing and fair dealings' between buyers and suppliers as well as third parties.[44]

The standard of due diligence proposed by Europe is met by a reasonable contractual design that includes the participation of third parties in the assessment of the prevention and correction plans.

To this end, the European Union establishes the need for companies to 'engage in meaningful dialogue' with stakeholders, which takes shape through a process of consultation and collection of quantitative and qualitative information[45] and provides for a complaints procedure to protect the defence of legitimate concerns about actual or potential negative impacts of the activities.[46]

The Due Diligence Directive goes further. It identifies communities as 'stakeholders'[47] and adopts a rights-based approach to their protection, based on recognition of the role of local communities as custodians of values and traditions relevant to the knowledge, understanding and conservation of the territory.[48] By virtue of the new Directive, local communities may claim several rights, ranging from the right to adequate access to information, the right to consultation and participation in decision-making, to the right to complain

The European model fosters a novel ecosystem in which contracting parties and communities cooperate in a dynamic balance. This balance could be achieved by creating contractual obligations that include not only the duty to perform, but also an additional effect: the duty to protect. This obligation is based on the

[44] See European Model Clauses. Third Draft available at 2023-10-european-model-clauses-supply-chains0. On this point, it should also be pointed out as in the most recent literature the concepts of supply chain and ecosystem are considered deeply interlinked. Among others, see A. Ates et al, 'Crafting Strategic Responses to Ecosystem Dynamics in Manufacturing' 194 *Technological Forecasting and Social Change* (2023).

[45] See Art 13, para 3 of Directive 2024/1760/EU.

[46] See Art 14 of Directive 2024/1760/EU.

[47] See Art 3, para 1, letter (n) of Directive 2024/1760/EU.

[48] In this sense, see the Rio Convention on Biological Diversity of 1974 (Art 8, para 1, letter (j)) according to which each contracting party, subject to its national legislation, shall respect, preserve, and maintain the knowledge, innovations and practices of local communities embodying traditional ways of life relevant to the conservation and sustainable use of biological diversity. See also Principle 22 of the 1992 Rio Declaration on Environment and Development according to which 'local communities play a vital role in environmental management and development through their traditional knowledge and practices'. The term community also returns in the 2003 UNESCO Convention on the Safeguarding of the Intangible Cultural Heritage, which in defining intangible heritage refers to 'the expressions, knowledge, know-how that communities, groups and, in some cases, individuals recognise as part of their cultural heritage'.

general principle of good faith, which can even have effect on third parties in a qualified position. It justifies protection such as that afforded to the parties.[49]

IV. Information and Good Faith in the Twin Transition Era

Private relationships therefore must be based on loyal cooperation, in which the exchange and sharing of information is indispensable. As a result, information is on the way to becoming an objective point of reference for negotiations, or rather a legal asset that can be derived in a negotiating relationship. Information can be the subject of rights, even those of third parties, and therefore requires instruments of guarantee and protection.

In this respect, it should be noted that international jurisprudence has begun to do just that.[50]

In December 2022, twelve members of the Gran Cumbal indigenous community in Nariño, Colombia, learned of the existence of a contract between the indigenous community authority and a company for the purchase of carbon credits.[51] In June 2023, the indigenous community filed a lawsuit claiming that the private companies involved in the carbon credit contract had not sought and obtained their consent, thereby violating their fundamental rights to free, prior and informed consultation, to an active and effective participation in decision-making, to self-determination and to the environmental justice from an indigenous perspective. The judge found that the lack of meaningful participation of the indigenous community in the earlier stages of the treaty violated the plaintiffs' fundamental rights. More importantly, the judge highlighted the lack of information regarding the allocation of financial resources from the purchase of carbon credits and affirmed the right of indigenous communities to such information. Accordingly, he ordered the defendants to hold a public hearing to provide the indigenous community with a detailed financial report on the purchase of carbon credits.

[49] Thus, M.G. Cappiello, 'Il contratto "a rilevanza ecologica": nuovi scenari civilistici a tutela dell'ambiente' *Rivista quadrimestrale di diritto dell'ambiente*, 1, 127 (2020).

[50] P. Perlingieri, 'L'informazione come bene giuridico' *Rassegna di diritto civile*, 2 (1990).

[51] More information on the case is available at *Members of Indigenous community 'Gran Cumbal'* v *SVP Business SAS, Global Consulting and Assessment Services SA, Deutsche Certification Body SAS, COLCX and the Indigenous authority of 'Gran Cumbal'* – Climate Change Litigation (climatecasechart.com).

The Colombian rulings, as well as the European legal framework, clearly show how the needs associated with sustainability strengthen the ideal of social solidarity. In fact, social solidarity connects private relationships with what is going on in the context in which they take place and which coincides with the community. This requires the 'building of a context' animated by a 'proactive solidarity' which 'in the name of its connection with the community' intervenes 'a priori', as an 'instrument of conformity of the contract'.[52]

In such a scenario, as foreseen in the premises of this essay, the general clause of good faith appears to be the appropriate legal instrument to drive the change.[53]

Sustainability requires a rethinking of the content of good faith. Development is sustainable if the rights of third parties are not neglected. It implies fairness and loyal cooperation between the parties and third parties in order to safeguard their respective interests. As a general clause and a rule of conduct, good faith evokes loyalty, solidarity and trust in order to guarantee protection also for the reasons of third parties, on whom the effects of the dispositive activity of private powers can be identified.[54] The elasticity of the general clause makes it possible to be open to current realities and to problems that have not yet been addressed, by allowing the contract to be adapted to new values. The general clause is a useful instrument for regulating technological society, which is characterized by strongly accelerated development, and the ecological society. Good faith makes it possible to address the issues raised by the twin transition with all the immediacy and urgency that the dramatic nature of the climate crisis demands.

V. Conclusions

The fight against climate change and the ecological and digital transition requires the building of new legal infrastructures to

[52] Thus, U. Mattei and A. Quarta, 'Tre tipi di solidarietà. Oltre la crisi nel diritto dei contratti' *giustiziacivile.com*, 1-13 (2020).

[53] See in this sense, P. Perlingieri, 'Legal Principles and Value' *The Italian Law Journal*, I (2017) according to whom 'in determining the content of general clauses it is also considered appropriate to refer to general principles. (...) Good faith refers to the principle of solidarity or that of loyal cooperation'. On the role of good faith in ensuring a fair and just assessment of the contractual dimension, see L. Vicente, 'Ownership Piercing', 17 *Ohio State Business Law Journal* 129 (2023).

[54] Thus A. Palma, 'La clausola generale di buona fede in senso oggettivo: tipicità e fluidità di una regola. Profili di comparazione' *Fundamentos romanísticos del derecho contemporáneo*, 6, 474-496 (2021).

regulate social reality to achieve the goals outlined in the UN 2030 Agenda.

If we look at the regulatory landscape set by the European Union and the United States, it seems that they intend to give priority to private autonomy.

In such a scenario, it is necessary to rethink the traditional legal categories of the contract and to opt for the implementation of legal models that consider the contract as an ecosystem involving the interests of the parties and third parties and that go beyond the relativity of effects, taking into account all those third parties, in particular communities, whose fundamental rights may be affected by a contract.

Third parties must be involved in the negotiation phase of the contract through consultation procedures and must have the right to appeal if the right to be consulted is infringed.

The legal asset that can be derived from negotiating relations with third parties is information. Through information, producers and suppliers can regulate their relations while respecting the social, cultural and economic context in which these relations are embedded.

A reconsideration of the general clause of good faith can drive this change. As a general clause and a rule of conduct, good faith evokes loyalty, solidarity and trust to guarantee protection also for the reasons of third parties. Accordingly, its content must be reinterpreted to contribute to effective sustainable development in the era of the twin transition.

Procedural Hurdles of Climate Change Litigation in Italy: Prospects in Light of the ECtHR Decision in the *KlimaSeniorinnen* Case

Davide Castagno* and Maria Pia Gasperini**

Abstract

The paper deals with the main procedural hurdles which individuals and associations meet in lawsuits against the States for the assessment of their failures in facing climate change. The focus is both on the ruling issued by the Court of First Instance of Rome of 6 March 2024 in the *Last Judgment* case and the Judgment of the European Court of Human Rights in the *KlimaSeniorinnen* case of 9 April 2024. The authors examine the content of both decisions, taking into consideration the possible impact of the ECtHR's ruling on future decisions of national courts called upon to adjudicate climate change disputes.

Keywords

Climate Change Litigation, *Last Judgment*, Lack of Jurisdiction, *KlimaSeniorinnen* Case, Human Rights, Legal Standing.

I. Introduction

In recent years, almost all European courts have been called upon to deal with disputes related to climate change raised by non-governmental organizations (NGOs) and individual activists against governments (so-called 'vertical' climate change litigation). After the Dutch pivotal case of *Urgenda*, and without claiming to be exhaustive, the governments of France, Ireland, United Kingdom, Germany, Switzerland, Belgium, Italy and Spain have had to face their climate lawsuit.[1] And the same applies to supra-nationals

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[1] For an overview of these cases and others, see A. Pisanò, *Il diritto al clima. Il ruolo nei diritti nei contenziosi climatici europei* (Napoli: Edizioni Scientifiche Italiane, 2022), 183-299; F. Sindico and M.M. Mbengue eds, *Comparative Climate Change Litigation: Beyond the Usual Suspects* (Berlin: Springer, 2021), *passim*; E. D'Alessandro and D. Castagno eds, *Reports & Essays on Climate Change Litigation* (Torino: Università degli Studi di Torino, 2024), 15-158; C. Rodríguez-Garavito ed, *Litigating the Climate Emergency. How Human Rights, Courts, and Legal Mobilization Can Bolster Climate Action* (Cambridge: Cambridge University Press, 2022), *passim*; C. Cournil, *Les grandes*

courts like the European Court of Justice (ECJ) and the European Court of Human Rights (ECtHR).[2]

Even though all these cases differ in their characteristics and legal foundation, their purpose is not to entrust courts with the task of finding a solution to climate change, but rather to push governments to implement their climate policies within a 'global' strategy that complies with international agreements and recommendations. From this point of view, climate disputes are therefore a kind of 'strategic' litigation, meaning that such disputes are initiated with a goal different from what parties typically aim for in an adversarial process.[3] Indeed, all these proceedings always carry media consequences, regardless of the outcome of the process, which normally constitutes the true objective – and therefore a success in itself – for the claimants who lead these kinds of legal battles.[4]

The fact remains that courts normally have to handle these cases with traditional rules of proceedings laid down in national laws, so for climate litigation this involves many procedural hurdles which sometimes make the strategy itself questionable.[5]

Of course, the Italian procedural framework does not escape these problems. Therefore, the aim of this work is to briefly present

affaires climatiques (Aix-en-Provence: Droits International, Comparé et Européen, 2020), *passim*; I. Alogna et al, *Climate Change Litigation in Europe. Regional, Comparative and Sectoral Perspectives* (Cambridge: Intersentia, 2024), *passim*.

[2] Case T-330/18 *Carvalho and Others* v *Parliament and Council*, Order of 9 May 2019, available at www.eur-lex.europa.eu; and Eur. Court H.R. (GC), *Verein Klimaseniorinnen Schweiz and Others* v *Switzerland*, Judgment of 9 April 2024, available at www.hudoc.echr.coe.it.

[3] See B. Hess, 'Strategic Litigation: A New Phenomenon in Dispute Resolution?' *Max Planck Institute Luxembourg for Procedural Law Research Paper Series*, 1-33 (2022). With particular regard to the Italian context, see also S. Pitto, 'Public interest litigation e contenzioso strategico nell'ordinamento italiano. Profili critici e spunti dal diritto comparato' *DPCE online*, 1061-1098 (2021). On the notion of 'litigation strategy' in climate change litigation, see M. Carducci, 'La ricerca dei caratteri differenziali della "giustizia climatica"' *DPCE online*, 1345, 13531358 (2020).

[4] On the subject, see also B. Pozzo, 'The Italian Path to Climate Change: Nothing New Under the Sun', in F. Sindico and M.M. Mbengue eds, n 1 above, 475. Regarding the 'relativity' of legal failure in strategic litigation, see also S. Valaguzza, 'Liti strategiche: il contenzioso climatico salverà il pianeta?' *Diritto processuale amministrativo*, 293-334 (2021).

[5] For an example of such obstacles, see D. Castagno, 'Claimants' Standing in Climate Disputes: Rules of Proceedings and "Political" Decisions', in E. D'Alessandro and D. Castagno eds, n 1 above, 171-186. With particular regard to the Italian situation, see also S. Vincre and A. Henke, 'Il contenzioso "climatico": problemi e prospettive' *BioLaw Journal*, 137-158 (2023) and G. Ghinelli, 'Le condizioni dell'azione nel contenzioso climatico: c'è un giudice per il clima?' *Rivista trimestrale di diritto e procedura civile*, 1273, 1293-1297 (2021).

the current situation of the so-called *Last Judgment* case (in Italian '*Giudizio Universale*'), ie the claim against the Italian Government filed in June 2021 before the Court of First Instance of Rome by more than two thousand activists, which marked the beginning of climate change litigation in Italy. In particular, we intend to analyse both the paths already taken and their procedural obstacles, as well as future possible solutions in light of judicial developments in the field, and namely of the ECtHR decision in the *KlimaSeniorinnen* case.

II. Litigating Climate Change Before Civil Courts

1. The Constitutional Review Mechanism

Constitutional review proceedings are sometimes of help for climate change litigation. The German case of Lisa Neubauer is an excellent example of this. By challenging the Federal Climate Change Act of 2019 (*Bundes-Klimaschutzgesetz*) through the Federal Constitutional Court (*Bundesverfassungsgericht*), the claimants obtained a revision of this Act, successfully securing a reduction of greenhouse gas (GHG) emissions.[6]

Nevertheless, to obtain such a result, at least three conditions must be met. First, the national basic law must include the protection of nature as a fundamental right, as provided by the above-mentioned Art 20a of the German Basic Law (*Grundgesetz*).[7] Second, the mechanism of constitutional review has to be directly open to individuals, as the German constitutional review mechanism is. Finally, since a regulation concerning climate change must be challenged, such a regulation needs to have been previously promulgated by a legislator, as occurred in Germany with the Federal Climate Change Act.

With regard to the Italian situation, however, only the first requirement has been met. In March 2022, a constitutional reform introduced through Art 9 of the Italian Constitution a new sentence, specifically including the protection of the environment, biodiversity and ecosystems as fundamental rights, and also

[6] Bundesverfassungsgericht 24 March 2021 no 1 BvR 2656/18, available at www.bundesverfassungsgericht.de.

[7] According to Art 20a *Grundgesetz* 'also mindful of its responsibility towards future generations, the state shall protect the natural foundations of life and animals by legislation and, in accordance with law and justice, by executive and judicial action, all within the framework of the constitutional order'.

considering the interest of future generations.[8] The fact remains, however, that individuals are not allowed to directly act before the Constitutional Court, since only judges may refer to the Court with a question raised by the parties through an ordinary claim.

Finally, and equally important, even if such a situation were to arise, there is currently no specific regulation enacted by the Italian Parliament that explicitly addresses a national strategy for climate change mitigation.[9]

Thus, considering all these aspects, constitutional review proceedings can be considered a very difficult path to support climate change litigation in Italy.

2. Claims for Annulment Before Administrative Courts

Things differ slightly before Italian administrative courts, even if in this case environmental associations benefit from special standing regarding environmental issues. Pursuant to Art 18 of legge 8 July 1986 no 349, which establishes the Ministry of the Environment, environmental associations are indeed granted the authority to represent public interest and contest administrative misconduct related to environmental matters before administrative courts.

Nonetheless, it should be noted that within the Italian legal system, the mere challenge of the State's actions does not

[8] Legge costituzionale 11 February 2022 no 1. In any case, it should be pointed out that the Italian Constitutional Court had already recognised the existence of a fundamental right to live in a healthy environment on the basis of Arts 2 (concerning the protection of the fundamental rights of individuals), 9 (concerning the protection of culture, science and research) and 32 (concerning the protection of the right to health) of the Italian Constitution (see Corte costituzionale 28 May 1987 no 210 and 30 December 1987 no 641, available at www.cortecostituzionale.it).

[9] Speaking about regulations concerning national strategy on climate change mitigation, we refer to general regulations such as the above-mentioned German *Bundes-Klimaschutzgesetz* of 2019, or the British Climate Change Act of 2018, the French *Loi climat et résilience* (Loi 2021-1104 of 22 August 2021), the Spanish *Ley de cambio climático y transición energética* (Ley 7/2021 of 20 May 2021), and the Portuguese *Lei de Bases do Clima* (Lei 98/2021 of 31 December 2021). On 14 October 2019, the Italian Government adopted some urgent measures expressly directed to prevent climate change (decreto legge 14 October 2019 no 111). Nevertheless, this act is not comparable with any of the others national acts just mentioned, containing only specific and temporary provisions. On this topic, see D. Castagno, 'Des petits pas vers une loi sur le climat: la situation italienne entre le parlement et le juge', in A. Lecourt et al eds, *La loi climat et résilience: état des lieux et perspectives* (Paris: LexisNexis, 2024), 167-174, while for an overview of the national framework climate change legislation in the European context, see F. Gallarati, 'Le leggi-quadro sul clima negli Stati membri dell'Unione europea: una comparazione' *DPCEonline*, 3459-3484 (2021). For a more general overview, see also A. Averchenkova et al eds, *Trends in Climate Change Legislation* (Cheltenham: Elgar, 2017), *passim*.

automatically trigger proceedings before administrative courts. Indeed, administrative jurisdiction is only invoked when the State operates within the scope of its public authority, whereas cases related to actions governed by private law fall under the purview of civil judges. Thus, Italian administrative judges usually cannot refer to general liability rules, as was the case for instance of the French *Affaire du Siècle*. In that case, the Paris Administrative Court based its judgment on Art 1246 of the French Civil Code, which is a rule concerning liability for ecological damage.[10]

Therefore, an administrative action is invariably a prerequisite for initiating a lawsuit for annulment before Italian administrative courts. Moreover, such an act must be unlawful. This means that the public administration must have failed to respect some regulation in acting with its public authority. Finally, the effects of such an act must cover a particular area in which the environmental association carries out its social engagement. As per the case law of administrative judges, the eligibility of environmental associations, as stipulated in Art 18 of legge 8 July 1986 no 349, is typically associated with highly localized environmental issues that typically pertain to specific regions within the country's borders.[11] These issues may include matters like industrial pollution, soil extraction, and similar concerns. Consequently, once again, this kind of solution seems to be a treacherously procedural vehicle for climate change issues, which are not easily confined to a certain area.

3. Tort Law as a Procedural Gateway

Given the limitations outlined in the preceding paragraphs, the tort law framework emerges as the preferred avenue for climate activists in the *Last Judgment* group – consisting of twenty-four NGOs, one hundred and sixty-two adults, and seventeen children – to initiate climate change litigation in Italy.[12] According to Art 2043

[10] Tribunal Administratif de Paris 14 October 2021 nos 1904967, 1904968, 1904972, 1904976/4-1, available at www.tribunal-administratif.fr.

[11] On the topic, see F. Scalia, 'La giustizia climatica' *federalismi.it*, 269, 289-299 (2021).

[12] The reasons for such a litigation are explained in M. Di Pierri ed, *La causa del secolo. La prima grande azione legale contro lo Stato per salvare l'Italia (e il pianeta) dalla catastrofe climatica* (Roma: Round Robin, 2021). For some comments on the litigation, see also R. Luporini, 'The "Last Judgment": Early Reflections on Upcoming Climate Litigation in Italy' *Zoom in 77 Questions of International Law*, 27-49 (2021); L. Saltalamacchia, 'Giudizio Universale: Insights from a Pending Leading Case', in E. D'Alessandro and D. Castagno eds, n 1 above, 15-22; M. Fermeglia and R. Luporini, '"Urgenda-Style" Strategic Climate Change Litigation in Italy: A Tale of Human Rights and Torts?' 7 *Chinese Journal of Environmental Law*, 245-260 (2023).

of the Italian Civil Code, any person who commits an unlawful act against another person that can be attributed to him, negligently or intentionally, must repair the damage that this other person has suffered as a result. So, basically, the claimants' main argument is that by failing to implement measures aimed at reducing climate change, the State has acted unlawfully within the meaning of Art 2043 of the Civil Code. With its negligent conduct, the State is alleged to have violated some of the fundamental rights laid down in the Italian Constitution and in the European Convention on Human Rights (ECHR), the right to health and to a healthy environment above all. Thus, the State should promptly take any appropriate measure permitting the reduction of GHG emissions by 2030 on the basis of Art 2058 of the Civil Code, which provides for restoration in kind, as far as it is possible.

The provision of Art 2043 of the Civil Code is intended in a very general sense, allowing action not only to obtain compensation, but also to prevent any potential damage to fundamental rights that may occur.[13] In this regard, the summons points out that each citizen has the right to bring a claim alleging the State's breach of its climate duties, which derives notably from the United Nations Framework Convention on Climate Change (UNFCC) and its juridical instruments, such as the 2015 Paris agreement, as well as from Arts 2 and 8 ECHR.[14]

III. Procedural Hurdles in the *Last Judgment* Case

1. The Justiciability of the Claim

In its defence, the Italian State Attorney's Office first contested the justiciability of the claim. According to the defence, the petitioners' claim amounted to an inadmissible request to review political-legislative choices through an undue intrusion of the judiciary into the competencies of the parliament and the government, thereby violating the higher principle of the separation of powers.[15]

[13] *Ex multis* Corte di Cassazione 21 December 1990 no 12133, available at www.dejure.it.

[14] *A SUD et al* v *Italy*, Summons, available at https://giudiziouniversale.eu/wp-content/uploads/2023/07/Atto-di-citazione-A-Sud-VS-Stato-Italiano-2021.pdf (last visited 26 May 2023).

[15] On the problem of justiciability in Italian climate change litigation, see also G. Ghinelli, 'Justiciability and Climate Litigation in Italy', in E. D'Alessandro and D. Castagno, n 1 above, 23-42.

Adhering to such a defence, in its judgment of 6 March 2024, the Court of First Instance of Rome declared the questions posed by the claimants as 'inadmissible', due to an absolute lack of jurisdiction of the court. Indeed, according to the court ruling, the questions posed by the claimants – seeking to ascertain the responsibility of the State and to condemn the defendant to adopt all necessary initiatives to reduce national artificial CO2-eq emissions by 92% by 2030 compared to 1990 levels, or to adopt another, higher or lower, measure to be determined during the proceedings – were clearly expressive of the function of 'political direction', consisting in determining the fundamental lines of development of the State's policy on the delicate and complex issue of climate change. Therefore, the court ruled that the claimants' assertions were not justiciable by any Italian civil court.[16]

As for the subordinate request of the claimants – aimed at obtaining a modification of the Italian National Integrated Energy and Climate Plan (PNIEC) due to the failure to comply with the objectives set by the European legislator in the European Parliament and Council Regulation 2018/1999/EU of 11 December 2018 on the Governance of the Energy Union and Climate Action – according to the court, this was a matter that could be challenged before the administrative courts, dealing with issues attributable to the exercise of public powers (see above para II.2).

So, after about three years (the lawsuit was filed in June 2021), the Court of First Instance decided not to enter the merits of the case, denying outright the justiciability of the issue at stake.

2. The Claimants' Standing and Interest

Since the judgment of the Court of First Instance stopped the claim at the very first procedural stage, not only the merits of the case but also all other procedural requirements remained unexplored. For this reason, these requirements will arguably have to be addressed by the Court of Appeal of Rome, before which the judgment will certainly be appealed.[17] This means that in the event that the Court of Appeal recognises the jurisdiction denied by the

[16] Tribunale di Roma 6 March 2024, available at www.giudiziouniversale.eu (last visited 23 May 2024). For a comment on the judgment, see C.V. Giabardo, 'Qualche annotazione comparata sulla pronuncia di inammissibilità per difetto assoluto di giurisdizione nel primo caso di Climate Change Litigation in Italia' www.giustiziainsieme.it, 29 April 2024.

[17] See the comments of the promoters at https://giudiziouniversale.eu/2024/03/06/arrivata-la-sentenza-il-tribunale-di-roma-decide-di-non-decidere-non-ce-giustizia-per-il-clima/ (last visited 23 May 2024).

first-instance judge, it will then need to determine whether the further procedural requirements to decide the case on its merits, and namely the standing and interest of the claimants, are met.[18]

This aspect must be addressed by the court according to the ordinary rules provided by the Italian Code of Civil Procedure, according to which, except in cases expressly provided for by a particular regulation, no one may bring a claim on behalf of others (Art 81). Moreover, to bring a claim, the claimants must have an interest in it, that is, the claimants must be directly concerned in the case they bring to the court (Art 100).

Thus, the one hundred and seventy-nine individual claimants must firstly assert a direct and personal interest, that is, they must be able to demonstrate that, due to the State's climate negligent policy, each of them has indeed incurred harm, as defined under Art 2043 of the Civil Code. Of course, following the Belgian *Klimaatzaak* case law,[19] it is possible to affirm that any individual claimant might conceivably be permitted to substantiate a concrete injury, primarily arising from the purported infringement of the fundamental right to reside in a clean and healthy environment by the State. This would be especially relevant given the Constitutional 'ecological' reform that became effective subsequent to the commencement of the *Last Judgment* (para II.1 above). But judges might also emphasise that the right to reside in a clean and healthy environment is unquestionably a universal entitlement, signifying that a broadly shared interest is at stake in the case. However, such an interest cannot be pursuable by an individual claim, nor does the Italian legal order allow any public interest litigation whatsoever.[20] From this perspective, the claimants' petition in the *Last Judgment* could therefore be considered as an inadmissible *actio popularis*, since no individual right is affected in a way that differs from that of the entire population.

[18] Following the latest reform of the Italian Code of Civil Procedure (the so-called 'Cartabia Reform', decreto legislativo 10 October 2022 no 149), Art 354, para 3, of the Code of Civil Procedure stipulates that if the appellate judge recognises the jurisdiction denied by the first judge, the parties are allowed to carry out the activities that would otherwise be precluded, and the judge proceeds to the decision. Unlike before, the merits of the dispute are thus addressed for the first time on appeal, without the need to return to the first-instance judge.

[19] Tribunale de première instance francophone de Bruxelles 17 June 2021 no 167, available at www.climatecasechart.com. For a comment on the case, see C. Renglet and S. Smis, 'The Belgian Climate Case: A Step Forward in Invoking Human Rights Standards in Climate Litigation?' 25 *American Society of International Law*, 1-6 (2021).

[20] A sort of public interest litigation is provided for electoral issues on the basis of Arts 9 and 70 of decreto legislativo 18 August 2000 no 267, which allow any citizen to bring an action before the administrative or civil courts, as the case may be.

Apparently, the same difficulties apply when it comes to admitting the claim of the associations on behalf of the individual interests they intend to protect, since in that case it would mean admitting a collective action that is currently not provided for by the Italian Code of Civil Procedure. Indeed, the new Title VIII-*bis* of the Code allows associations to act on behalf of the consistent rights of individuals through collective actions.[21] Nonetheless, such a remedy can only be pursued against companies, as stipulated in Arts 840-*bis*, para 3 and 840-*sexiesdecies* of the Code of Civil Procedure.[22]

In any case, on both justiciability and legal standing, the ECtHR's ruling in the *KlimaSeniorinnen* case will certainly have a significant impact on future decisions of national courts called upon to adjudicate climate change disputes, like the Italian ones. Hence, it is now appropriate to further investigate the procedural content of such a decision.

IV. Procedural Issues in the *KlimaSeniorinnen* Case: Legal Standing

1. The ECtHR's Judgments of 9 April 2024

On 9 April 2024, the Grand Chamber of the European Court of Human Rights delivered three remarkable rulings in three proceedings started by individuals and NGOs which alleged the infringement of human rights enshrined in the ECHR, due to the failure of legislative and administrative measures adopted by the States to tackle climate change. In *Duarte Agostinho and Others* v *Portugal and 32 Others*, the ECtHR dismissed the application submitted by six young Portuguese nationals as inadmissible for non-exhaustion of domestic remedies, as the applicants had brought their legal action before the Court of Strasbourg without first filing a lawsuit before Portuguese courts.[23] In *Carême* v *France*, the application of the former mayor of Grand-Synthe was dismissed as inadmissible given that the claimant no longer had any links with Grande-Synthe, so he could not claim to have victim status under

[21] In 2021, the class action reform provided by the legge 12 April 2019 no 31 came into force. Before this date, Italian class action was regulated by the so-called Consumers Code (decreto legislativo 23 October 2005 no 206) and referred to the consistent rights of consumers only.

[22] On this topic, see also E. Gabellini, 'Accesso alla giustizia in materia ambientale e climatica: le azioni di classe' *Rivista trimestrale di diritto e procedura civile*, 1105-1132 (2022).

[23] Available at https://hudoc.echr.coe.int/eng?i=001-233261.

Art 34 of the Convention, nor could he lodge a complaint on behalf of that municipality.[24]

In both these cases, therefore, the ECtHR did not deal closely with the crucial issue of legal standing. In *Verein Klimaseniorinnen Schweiz and Others* v *Switzerland*, on the other hand, the European Court addressed such an issue (as well as the legal standing of associations), as it had been called on to rule on both individual and collective claims previously submitted, albeit unsuccessfully, to domestic authorities, both administrative and judicial.[25]

2. Legal Standing of Individuals

In addressing such an issue as concerns the breach of Arts 2 and 8 ECHR, the Court observed, on the grounds of 'best available science', that anthropogenic climate change exists, and the States are aware of this, so they are able to take appropriate measure to mitigate the impact of climate change on people's health, well-being, and the survival of mankind itself. The acknowledgement of the standing of individuals requires, in any case, an assessment of victim status under Art 34 ECHR, which in turn implies a causal relationship between the increasing risk for people's health and life and failure to fulfil positive obligations undertaken by States in the field of climate change. While accepting that a legally relevant relationship of causation may exist between State actions or omissions and the harm affecting individuals, the Court nevertheless pointed out that in the particular context of climate change litigation a strict approach to the setting of victim status is appropriate, taking into account, on one hand, that failures in the adoption of mitigating measures have an impact on the overall population and, on the other hand, that the legal system of the ECHR does not provide for an *actio popularis*. Thus, according to the Court's case law, victim *status* can be granted to individuals only when they appear to be personally and directly affected by the alleged failures, which means, in the present context, that the applicant has to prove to be subject to a high intensity of exposure to the adverse effects of climate change, and there must be a pressing need to ensure the applicant's individual

[24] Available at https://hudoc.echr.coe.int/eng?i=001-233174.

[25] Available at https://hudoc.echr.coe.int/eng?i=001-233206. This case (ruled by a majority, with the sole dissenting opinion of British Judge Eicke) was submitted to the ECtHR by a Swiss association for the protection of climate and by four older women, members of such an association, who complained that their health problems became more severe during heatwaves related to climate change, significantly affecting their lives, living conditions and well-being.

protection.[26] The threshold for fulfilling these conditions is especially high, given the lack of *actio popularis* under the ECHR legal framework, and, in this case, it was deemed not to have been reached. The Court hence dismissed the complaints of four individual applicants as inadmissible.

3. Standing of Associations

Regarding the admissibility of the *KlimaSeniorinnen* Association's complaint, the ECtHR delivered a disruptive decision, considering that in modern democratic societies political and administrative choices having an overall impact on citizens (such as in the field of climate change, where intergenerational burden-sharing assumes particular importance) must allow the involved people to defend their own interests even in a collective manner. Under conventional law, NGOs play a key role in ensuring access to information, the participation of citizens, and access to justice in environmental matters, as expressly stated in the Aarhus Convention of 1998, which the European Union joined in 2005.[27]

Given the above, the ECtHR considered that the special features of climate change cases require a 'tailored approach' that prevents the Court from directly transposing its case law in environmental matters into the climate change context. On one hand, it noted that this kind of litigation often involves complex issues of law and fact, requiring significant financial and logistical resources and coordination; on the other hand, it emphasised that climate change is 'a common concern of humankind', so it is appropriate to grant associations with a dedicated purpose in the defence of the human rights of its members in relation to climate change legal standing before the ECtHR, regardless of their members having victim status as individuals.[28]

However, given the inadmissibility of an *actio popularis* in the ECHR's legal framework, the Court focused on some basic conditions which NGOs have to comply with to be allowed to lodge a complaint under Art 34 ECHR. Specifically, they have to be: lawfully

[26] See no 487-488.

[27] See European Council Decision 2005/370/EC of 17 February 2005. The European Court of Justice has ruled several times in favour of legal standing of environmental associations: see Case C-115/09 *Bund für Umwelt und Naturschutz Deutschland, Landesverband Nordrhein-Westfalen eV* v *Bezirksregierung Arnsberg*, Judgment of 12 May 2011; Case C-664/15 *Protect Natur- Arten- und Landschaftsschutz Umweltorganisation* v *Bezirkshauptmannschaft Gmünd*, Judgment of 20 December 2017; Case C-873/19 *Deutsche Umwelthilfe eV* v *Bundesrepublik Deutschland*, Judgment of 8 November 2022 (all cited judgments are available at www.eur-lex.europa.eu).

[28] See no 497-499.

established in the jurisdiction concerned or have standing to act there; able to demonstrate that they pursue a dedicated purpose in accordance with their statutory objectives in the defence of the human rights of their members or other affected individuals within the jurisdiction concerned; able to demonstrate that they can be regarded as genuinely qualified and representative to act on behalf of members or other affected individuals.[29]

The conditions mentioned above were deemed to have been met in the *KlimaSeniorinnen* case. Accordingly, the ECtHR held that the applicant association had *locus standi* in the proceedings, and its complaint should be examined under Arts 8 and 6 ECHR.

V. Climate Change Policies and Enjoyment of Human Rights

1. The Margin of Appreciation of States

In reasoning its judgment, the ECtHR wished to stress, preliminarily, that judicial intervention is complementary to democratic processes, and cannot provide any substitute for the action which must be taken by the legislative and executive branches of government. Whilst the States Party to UNFCCC had made a legal commitment to protect the climate system for the benefit of present and future generations of humankind, in the peculiar context of climate change it is not easy to distinguish issues of law from issues of political choices. In any case, given such legal commitment, scientific evidence and the urgent need to act against climate change, the Court considered itself in a position to rule on general measures adopted by the States (or failures in their adoption) insofar as they have an impact on the enjoyment of human rights enshrined in the Convention.

The ECtHR, therefore, drew a distinction between what could be examined by both national and supranational courts and what is reserved for political choices: a) setting a relevant legislative and administrative framework for aims and objectives, tools of governance and monitoring; effective and consistent implementation of such a legal framework;[30] b) choice of means

[29] See no 502.

[30] The ECtHR argued that a domestic legal framework could be deemed adequate if it: adopts general measures specifying a target timeline for achieving carbon neutrality; sets out intermediate GHG emissions reduction targets; provides evidence showing whether due compliance has been achieved; keeps the relevant GHG reduction targets updated; acts in good time and in an appropriate and consistent manner when devising and implementing the relevant legislation and measures (see no 550).

designed to achieve these objectives. Aspect a) may be examined by judicial power, being the content of positive obligations undertaken by the States Party to UNFCCC, but aspect b) falls within the margin of appreciation of States as it involves an assessment of priorities for interventions and the allocation of resources, by balancing the interests at stake.

In the *KlimaSeniorinnen* case, the Court held that Switzerland did not comply with the obligation, undertaken under UNFCCC, to set a relevant domestic regulatory framework, failing to quantify, through a carbon budget or otherwise, national GHG emissions limitations.

2. Breach of Arts 8 and 6 ECHR

As concerns violation of human rights, the Court held that Switzerland had violated Art 8 ECHR, considering that, in the context of climate change, an effective protection of rights under such a provision (private and family life, home) requires that each Contracting State of UNFCCC undertake effective measures for the progressive reduction of their respective GHG emission levels.[31] In this regard, the ECtHR emphasised that the UNFCCC legal system is based on the principle of common but differentiated responsibilities, namely that each State has its own responsibilities within its own territorial jurisdiction in respect of climate change and cannot evade them by pointing to the responsibility of other States. According to the ECtHR's case law, Art 8 is involved not only in the case of adverse effects on the health, well-being and quality of life of individuals, but also when there is a severe risk of such effects, so that each State may be considered responsible within own jurisdiction for failures in adopting appropriate measures to anticipate or prevent the causes of climate change and mitigate its adverse effects.[32]

Furthermore, the Court of Strasbourg assessed the infringement of Art 6 ECHR, holding that the applicant association has victim *status* also for the complaint of lack of access to a court. Although the legal action brought by the Swiss NGO before the domestic courts was deemed to be 'hybrid' in nature (as it includes issues pertaining to democratic processes), the Court observed that the complaints of the applicant association had not been 'engaged with seriously' by national courts, which had underestimated scientific evidence, the

[31] Although the applicant association had also complained of an infringement of Art 2, the ECtHR considered it appropriate to examine the complaint from the angle of Art 8 alone, as the principles developed in its case law under Art 2 are similar to those under Art 8.

[32] See no 545-548.

severity of risk on the health and life of people, and the pressing need to ensure legal protection of human rights affected by climate change.

VI. What Is the Impact of the *Last Judgment* Case?

1. The Issue of Lack of Jurisdiction

When considering the future impact of the ECtHR's ruling on national courts' case law in matters of legal actions against States for climate responsibility, the focus is, primarily, on the issue of justiciability of the claim as regard its relationship with the margin of appreciation of legislative and administrative branches of the State.[33] Specifically, the future outcome of the *Last Judgment* depends on the reasonable prospects of overcoming the issue of lack of jurisdiction, on which basis the Court of First Instance of Rome delivered its decision.

In this respect, the *KlimaSeniorinnen* judgment leads us to reflect, firstly, on different legal frameworks in Switzerland and Italy in relation to their responsibilities in fulfilling positive obligations in matters of climate change, and on the claim's content submitted to the judge in the *Last Judgment*.

Regarding the former, it must be considered that, in its decision, the ECtHR was mindful of the need to respect the principle of separation of powers, and more than once it pointed out the limits of judicial intervention in the scope of discretional choices of legislative and administrative power. From this point of view, as seen above, the European Court held as 'justiciable', on the grounds of failures of positive obligations by Switzerland, the lack of setting an appropriate legal framework, including the provisions of aims and objectives, governance and monitoring processes, leaving the government the choice of proportional measures to achieve such aims and objectives. In the context of the *Last Judgment*, however,

[33] On this point, see L. Magi, 'Giustizia climatica e teoria dell'atto politico: tanto rumore per nulla' *Osservatorio sulle fonti*, 1029-1049 (2021). The relationship between justiciability of climate claims and separation of powers is the crucial point of the ruling of the Ninth Circuit Court of Appeals of 17 January 2020 in the famous case *Juliana* v *United* States (available at https://climatecasechart.com). In this regard, see M.C. Blumm and M.C. Wood, '"No Ordinary Lawsuit": Climate Change, Due Process, and the Public Trust Doctrine' 67 *American University Law Review,* 1-87 (2017); M.C. Wood, '"On the Eve of Destruction": Courts Confronting the Climate Emergency' 97 *Indiana Law Journal*, 239-295 (2022). For an interesting comparison, see P.D. Farah and I.A. Ibrahim, 'Urgenda vs. Juliana: Lessons for Future Climate Change Litigation Cases' 84 *University of Pittsburgh Law Review*, 547-584 (2023).

such *distinguo* (also crucial in the *Urgenda* case) could not be useful to argue the justiciability of claims against the Italian Government. Italy, indeed, falls under the EU legal system, and the European Union, after joining the UNFCCC and the Paris Agreement, has launched various legislative measures with the aim of combating climate change, providing for targets of GHG reduction, governance and monitoring processes.[34] Given this, it is difficult to say whether the adoption of this binding legal framework is enough to exclude the responsibility of the Italian Government in protecting human rights, and whether the choice of implementing measures also falls within the wide margin of appreciation of public branches.[35]

To further complicate matters, as said above, the claimants of the *Last Judgment* case asked the Court to order the Italian Government to take any corrective measure to reduce national emissions by 92% by 2030, compared to 1990 levels, or to adopt another, higher or lower, measure to be determined during the proceedings. In bringing this action, the applicants did not just complain of the non-fulfilment of positive obligations undertaken by the Italian Government to combat climate change but challenged the percentage target of reduction of GHG emissions as set under the EU legal system (-55% compared to 1990 by 2030), asking for a far greater percentage of reduction.[36]

Despite this procedural hurdle, it is to be expected that the claimants will reiterate their complaint before the Court of Appeal, even on the grounds of the ECtHR's judgment, as well as the most recent scientific findings on the urgent adoption of the most efficient measures.[37] In this strategic perspective, they may argue the

[34] We are referring, most recently, to the European Parliament and Council Regulation 2021/1119/EU establishing the framework for achieving climate neutrality (the so-called 'European Climate Law'), followed by the adoption of the plan 'Fit For 55', which is part of the European 'Green Deal'.

[35] On this point, see F. Cittadino, 'The A Sud v. Italy Case after the KlimaSeniorinnen Judgment. Implications of the ECtHR's Decision for Climate Litigation in Italy' (24 May 2024), available at https://voelkerrechtsblog.org.

[36] See C.V. Giabardo, n 16 above, who considers as questionable the distinction, drawn by the Dutch courts in the *Urgenda* case, between an order to achieve specific percentages of reduction of GHG emissions (legitimate scope of judiciary) and the political-legislative choices for achieving such targets (legitimate scope of politics).

[37] See the report IPCCC 2023 (available at https://www.ipcc.ch), which recommends the further implementation of appropriate measures against climate change in order to meet the targets of the Paris Agreement, pressing for an increase in funding renewable energy and new zero-emissions technologies. Furthermore, the European Commission, in its communication of 6 February 2024 (available at https://eur-lex.europa.eu/), recommends a 90% reduction of GHG emissions by 2040 to achieve climate neutrality by 2050.

responsibility of the Italian Government in failing to implement appropriate mitigating measures to achieve, at least, the EU target of -55% emissions by 2030, considering it as a 'minimum threshold'.[38] They may also insist on obtaining a declaratory judgment under Arts 2043 and 2051 of the Civil Code, to bypass the issue of redressability, related to the (im)possibility of enforcement of judicial orders to draft plans to reduce GHG emissions.[39]

2. Infringement of Human Rights and Legal Standing

The ECtHR ruling in the *KlimaSeniorinnen* case has a decisive role insofar as it provides a stronger legal basis for judicial actions brought on the grounds of infringement of human rights, giving to the *Last Judgment*'s claimants a further foothold to face the issues of lack of jurisdiction. It is also remarkable that, according to the European Court's decision, an infringement of Art 8 ECHR may occur not only when governments fail to set the necessary legal framework providing for aims and tools to tackle climate change, but also when they fail to enforce such a legal framework. In the *Last Judgment* case, therefore, the alleged breach of human rights enshrined in the ECHR could fill Art 2043 of the Civil Code with more content, confirming the thesis of the right to a stable climate as a fundamental right whose infringement constitutes a tort under such a legal provision. Furthermore, the 'intergenerational burden-sharing' mentioned by the ECtHR may be interpreted as a validation of the need to grant effective protection to the 'interest of future generations' currently laid down by Art 9 of the Italian Constitution, as reformed in 2022.[40]

Despite the assessment of the infringement of human rights, the ECtHR's ruling excludes the legal standing of individuals, but acknowledges the standing of NGOs pursuing dedicated aims and

[38] In the *Klimaatzaak* case, the Court of Appeal of Brussels, in its judgment of 30 November 2023 (available at https://climatecasechart.com), considered that a 55% reduction in GHG emissions compared to 1990 by 2030 constitutes this minimum threshold, below which Belgium cannot go without violating both Arts 2 and 8 ECHR and the general duty of care. Furthermore, insofar as the Court's injunction is limited to a GHG emissions reduction target that has already been validated at the European level, this injunction can in no way constitute an infringement of the principle of the separation of powers. For a first comment, see M. Petel and N. Vander Putten, 'The Belgian Climate Case: Navigating the Tensions Between Climate Justice and Separation of Powers' (5 December 2023), available at https://verfassungsblog.de/the-belgian-climate-case.

[39] In *Juliana* v *United States*, after the ruling of the Ninth Circuit Court of Appeals of 17 January 2020, the claimants amended their complaint, waiving the request for an order for public branches to adopt a plan of mitigating measures of climate change, and limiting themselves to asking the Court for a declaratory judgment.

[40] Legge costituzionale 11 February 2022 no 1.

objectives in the defence of the human rights affected by climate change. This issue, dealt with by Court of Strasbourg in an innovative manner, remains questionable in the Italian legal system, where associations have *locus standi*, on behalf of their members, to act through collective actions only against companies, as mentioned above.[41] Considering the ECtHR's decision, also questionable is whether the legal standing of NGOs in the field of climate change could be justified on the grounds of its case law in environmental matters. Under the Italian legal framework, such an approach would require a significant level of creativity in judicial interpretation, since the standing of environmental associations is provided for by Art 309 of the Consolidated Environmental Act for challenging acts and measures adopted by public bodies before administrative courts, namely in a procedural context other than litigation before civil courts.[42]

3. Final Remarks: A Message for Governments and Domestic Courts

Although the ECtHR's ruling in the *KlimaSeniorinnen* case might not have a decisive impact on the procedural issues arising in domestic legal frameworks, it represents, nonetheless, a milestone along the path towards effective protection of human rights through legal actions against States for their climate inaction. There can be no disregarding the considerations of the European Court regarding 'the key role which domestic Courts have played and will play in climate-change litigation (...) highlighting the importance of access to justice in this field', as well as the assertion that 'given the principles of shared responsibility and subsidiarity, it falls primarily to national authorities, including the Courts, to ensure that Convention obligations are observed'.[43] It is possible to take from these arguments a call to domestic courts to do their part to ensure effective protection of human rights affected by climate change, including also the prompting of a bolder approach to this kind of litigation, in light of the gravity of the situation and the primary importance of the interests at stake.[44] Thus, the ECtHR's judgment is also rightly included in the context of strategic litigation in a

[41] See para III.2 above.

[42] Accordingly, NGOs lawfully established in Italy could challenge the PNIEC before administrative courts, having jurisdiction on such a point (para III.1 above). At the time of writing this paper, the Italian Government has just sent a new PNIEC to the European Commission (available at https://www.mase.gov.it).

[43] No 639.

[44] See L. Magi, n 33 above.

double perspective: firstly, although it has not issued any specific order to the respondent State, it could be a powerful instrument of pressure on public branches for the adoption of appropriate measures to tackle climate change. Secondly, it calls on national courts to 'engage seriously' with the complaints of infringement of human rights in matters of climate change. A doubly political message, therefore, from a judicial decision in political matters.

The Entrepreneurial Nature of Renewable Energy Communities and Distribution of Incentives

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Abstract

The essay seeks to explore a critical yet underexamined issue: the entrepreneurial or non-entrepreneurial nature of Renewable Energy Communities (RECs). This distinction is crucial since significant practical and operational repercussions derive from the adherence or non-adherence to this reconstructive option: consider the relevant tax effects resulting from the taxation of business income. Therefore, to exploit RECs for the purpose of increasing the production of energy from renewable sources, it is necessary to interpret their regulation, silent on the topic, to the best of its expansive capacity.

Keywords

Entrepreneurial or Non-entrepreneurial Nature, Incentives Distribution, Notion of Business Activity, Incentive Allocation.

I. Foreword

Energy efficiency is one of the main and most important ways to initiate and speed up the process towards ever greater sustainability as a way to achieve an 'ecological revolution'. However, for this to be practically feasible, it is necessary to compensate for the sacrifices with as many benefits, which can be done in new forms of work, opportunities and earnings.[1]

The launch of Renewable Energy Communities (RECs) has sparked significant interest of a civil law doctrine,[2] with interventions aimed at

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[1] On this point, see E. Del Prato, 'Sostenibilità, precauzione, sussidiarietà' *Contratto e impresa/Europa*, 405 (2023).

[2] See M. Renna, 'Le comunità energetiche e l'autoconsumo collettivo di energia. Tutela della concorrenza e regolazione del mercato' *Nuove leggi civili commentate*, 161 (2024); L. Di Cerbo, 'Il *nomos* delle comunità energetiche: tra Stato, mercato e comune' *Giurisprudenza italiana*, 2749 (2023); M. Meli ed, *La transizione verso nuovi modelli di produzione e consumi di energia da fonti rinnovabili* (Pisa: Pacini, 2023), *passim*; Id, 'Autoconsumo di energia rinnovabile e nuove forme di *Energy Sharing*' *Nuove leggi civili commentate*, 630 (2020); V. Cappelli, 'Appunti per un inquadramento privatistico dell'autoconsumo di energia rinnovabile nel mercato elettrico: il caso delle comunità energetiche' *Nuove leggi civili commentate*, 381 (2023); Id, 'Profili privatistici delle nuove discipline in materia di promozione dell'energia rinnovabile e regolazione del mercato

resolving the many theoretical and practical issues posed by this discipline. Although originally intended to be simple, the regulatory landscape governing RECs has turned out to be very complex due to multiple regulatory interventions that have followed one another over time.

RECs are defined by European Parliament and Council Directive 2018/2001/EU of 11 December 2018 on the promotion of the use of energy from renewable sources [2018] OJ L328/82 ('RED II')[3] as legal entities connoted by an open structure and voluntary participation endowed with autonomy and effectively controlled by members. These can include natural persons, small and medium-sized enterprises, and local authorities (including public administrations) situated near the energy production facilities owned by the RECs or otherwise available to the RECs. Therefore, the RECs represent a form of 'democratization of the energy system'[4] achieved through the co-ownership or availability of the means of production and co-management of distribution tools that allow users, as their members, to take on the role of producers, consumers, and managers of renewable energy.

In this sense, the RECs represent a multifaceted instrument, intersecting different aspects of considerable legal interest. This was demonstrated by recent doctrinal contributions that have highlighted key aspects such as the choices of legal form that can be adopted,[5]

elettrico' *Nuove leggi civili commentate*, 1185 (2022); L. Cuocolo, P.P. Giampellegrini and O. Granato eds, *Le comunità energetiche rinnovabili. Modelli, regole, profili applicative* (Milano: Egea, 2023), *passim*; S. Monticelli and L. Ruggeri eds, *La via italiana alle comunità energetiche* (Napoli: Edizioni Scientifiche Italiane, 2022), *passim*; E. Giarmanà, 'Autoconsumo collettivo e comunità energetiche. I primi interventi di regolazione' *AmbienteDiritto.it*, 1 (2021); E. Cusa, 'Sviluppo sostenibile, cittadinanza attiva e comunità energetiche' *Orizzonti del diritto commerciale*, 71 (2020); C. Bevilacqua, 'Le comunità energetiche tra *governance* e sviluppo locale' *Amministrazione in cammino*, 1 (2020).

[3] Acknowledged in our system through Art 42-*bis* of decreto legge 30 December 2019 no 162, Arts 31-33 of decreto legislativo 8 November 2021 no 199, ARERA's Resolution no 727/2022/R/eel of 27 December 2022 – Definition, pursuant to decreto legislativo 8 November 2021 no 199 and decreto legislativo 8 November 2021 no 210, of the regulation of diffuse self-consumption.

[4] In these terms M. Meli, 'Autoconsumo', n 2 above, 633.

[5] M. Meli, 'Le Comunità di Energia Rinnovabile: i diversi modelli organizzativi' *Giurisprudenza italiana*, 2761 (2023); C. Favilli, 'Transizione ecologica e autoconsumo organizzato di energia rinnovabile. La questione della forma giuridica delle comunità energetiche' *Responsabilità civile e previdenza*, 385 (2023); L. Balestra, 'Proprietà e soggettività delle comunità energetiche: profili privatistici' *Giurisprudenza italiana*, 2772 (2023); M. Pafumi, 'Il soggetto giuridico Comunità Energetica: quali soluzioni possibili?', in M. Meli ed, *La transizione*, n 2 above, 121; R. Piselli, 'Le comunità energetiche tra pubblico e privato: un modello organizzativo transtipico' *Diritto e società*, 776 (2022).

governance,[6] the ownership of production sources,[7] liability profiles[8] and the negotiation models useful for obtaining the enjoyment of an energy production plant.[9]

The present essay aims to address a specific application issue, which has so far remained in the background. This issue arises from the significant regulatory stratification and multilevel legal framework examined by a recent Study of the National Council of Notaries:[10] the entrepreneurial or non-entrepreneurial nature of the REC itself.

II. Does the REC Always Qualify as an Enterprise?

It is well known that an REC must not prioritize profit as its main purpose, here prudentially understood both as profit for its members (profit in the subjective sense) and as a realization of profits (profit in the objective sense).[11] In this regard, it is worth pointing out that the economic benefit deriving from a saving of expenses for the participants, proportional to their consumption, instead of a remuneration for investment in participation, must not be considered a profit motive.

However, while profit should not dominate the REC's purpose, it is not entirely excluded. Under certain conditions, members of an REC may achieve appreciable benefits in strictly economic terms (eg, in the form of dividends on the initial investment or savings on the cost of access to electricity) or through access to services offered by the REC. In addition, the REC's business model may be designed entirely for the benefit of its

[6] A. Davola, 'La *governance* delle Comunità Energetiche tra finalità mutualistiche, democraticità e sostenibilità economica. Un'analisi empirica' *Diritto e società*, 885 (2022); C. Iaione et al, 'La *governance* per la gestione sostenibile e inclusiva delle comunità energetiche: analisi di pre-fattibilità economico-giuridica', in *Report di ricerca per l'Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile (ENEA)* (2020), available at https://www2.enea.it/it/ricerca-di-sistema-elettrico/accordo-di-programma-MiSE-ENEA-2019-2021/tecnologie/tecnologie-per-la-penetrazione-efficiente-del-vettore-elettrico-negli-usi-finali/report-2020.

[7] L. Balestra, n 5 above, 2772.

[8] G. Grasso, '*Shared Energy*. Nuove questioni e improponibilità di vecchie soluzioni in materia di responsabilità' *Nuova giurisprudenza civile commentata*, 1406 (2023); Id, 'Profili di responsabilità nelle comunità energetiche e negli scambi di energia tra pari', in M. Meli ed, *La transizione*, n 2 above, 65.

[9] F. Bartolini, 'I contratti di godimento per lo sviluppo delle comunità energetiche' *Giurisprudenza italiana*, 2781 (2023).

[10] Consiglio Nazionale del Notariato, Study no 38-2024/i, E. Cusa, 'Le incentivate comunità energetiche rinnovabili e il loro atto costitutivo' published on 27 March 2024 and available at https://notariato.it/it/ufficio_studi/.

[11] According to Art 31, par 1, letter a of decreto legislativo 8 November 2021 no 199: 'The main objective of the community is to provide environmental, economic or social benefits at community level to its partners or members or to the local areas in which the community operates, and not to make financial profits'.

members or involve the partial outsourcing of energy supply to third parties.

This raises an important question regarding the necessarily entrepreneurial nature of RECs. Indeed, the question arises as to whether they always qualify as enterprises or only acquire the nature of an enterprise under certain circumstances (in particular, the placing on the market of the electricity produced).

In this context, Study no 38-2004/I of the National Council of Notaries classifies RECs as commercial enterprises 'for the following three reasons: (i) energy activities are distinctly commercial (ie, non-agricultural) by nature; (ii) the latter are not, as a rule, classifiable as connected within the meaning of Art 2135, para 3 of the Civil Code if exercised by an REC that is an agricultural enterprise within the meaning of Art 2135, paras 1 and 2 of the Civil Code; (iii) even when RECs are established as non-profit entities, their activities corresponding to commercial enterprises should usually be prevalent (if not exclusive) with respect to non-entrepreneurial activities'. As a result of this classification, RECs are subject to the regulatory statute of commercial enterprises, so 'if the relative prerequisites are met, an REC may thus, for example, be required to register in the companies' register (even when it is constituted in the form of an association or foundation) or be subject to judicial liquidation'.[12]

According to Study no 38-2004/I of the National Council of Notaries, even an REC that merely redistributes incentives among its members and delegates other economic activities to third parties retains its entrepreneurial nature. The Study asserts that 'the incentivized REC, on the basis of the activities that it can carry out, even if it limits itself to exercising virtual power sharing, is mostly classifiable as an energy enterprise (possibly only an aggregator of energy producers and consumers), even if it outsources many or all of its economic activities'.[13] Before going into the merits of the issue, we would like to highlight the significance of the topic because the issue of the entrepreneurial or nonentrepreneurial nature of RECs is intricately linked to the issue of who holds ownership of the incentives – the REC or its members – leading to complex implications.

Indeed, if an undertaking receives State aid that must then in turn be distributed to third parties, both the direct aid received by the first undertaking and the indirect aid received by third parties would be susceptible to scrutiny under the State aid rules because – as stated in European Commission Notice (2016/C 262/01) of the concept of State aid – 'the advantage may be conferred on undertakings other than those to

[12] See Consiglio Nazionale del Notariato, Study no 38-2024/i, n 10 above, 24.
[13] ibid. 23.

which the State resources are directly transferred (indirect advantage). A given measure may also constitute a direct advantage for the recipient undertaking and an indirect advantage for other undertakings, for example, those operating at successive levels of activity'.[14]

Now, in the European Commission's recent decision C(2023) 8086 final of 22 November 2023 on incentives for collective self-consumption, there is no examination of the possibility of State aid to RECs: it is quite clear that, if RECs were (almost) always undertakings and were also holders of the incentives, the Commission's decision would be in breach of the community rules on State aid. Therefore, one of two conclusions is true: either RECs are enterprises, in which case they cannot be holders of aid but merely vehicles for its transfer,[15] or RECs are holders of incentives and then they can qualify as enterprises. This excludes RECs from being both enterprises and incentive holders, leaving, of course, the other possibility open: they are not enterprises or that, if they are such, they are not incentive holders.

III. The Notion of Business Activity and Its Applicability to RECs

To assess the entrepreneurial or non-entrepreneurial nature of an REC, it should be recalled that the notion of business activity is one of the most complex in Italian and European law and has given rise to considerable controversy in various fields of law.

According to the classic definition outlined in Art 2082 of the Civil Code, an enterprise is any economic activity characterized both by a specific purpose consisting of the production or exchange of goods or services and by specific methods of performance, which take the form of organization, cost-effectiveness and professionalism.

The prevailing doctrinal opinion[16] holds that an entrepreneur is a

[14] Thus, Commission Notice on the concept of State aid in Art 107, para 1 of Treaty on the Functioning of the European Union (2016/C 262/01), para 4.3, 26.

[15] See footnote 179 on page 26 of the Communication from the Commission on the concept of State aid in Art 107, para 1 of Treaty on the Functioning of the European Union (2016/C 262/01): 'An intermediate undertaking which acts as a mere vehicle for transferring the advantage to the beneficiary and does not retain any advantage should not normally be considered to be a beneficiary of State aid'.

[16] For support for this thesis, see, among others, E. Desana, 'La fattispecie impresa nelle sue varianti', in G. Cottino ed, *Lineamenti di diritto commerciale* (Bologna: Zanichelli, 2014), 37; F. Ferrara Jr. and F. Corsi, *Gli imprenditori e le società* (Milano: Giuffrè, 2012), 21; G. Ferri, *Diritto commerciale* (Torino: Utet Giuridica, 1996), 46; F. Galgano, *Diritto commerciale*, *L'imprenditore. Impresa. Contratti di impresa. Titoli di credito. Fallimento* (Bologna: Zanichelli, 1996), I, 26; G. Auletta and N. Salanitro, *Diritto commerciale* (Milano: Giuffrè, 1996), 16; G. Cottino, *Diritto commerciale* (Padova: Cedam, 1993), I, I, 81. For the opposite minority thesis that does not consider market orientation an essential requirement of business activity, see G.F. Campobasso, *Diritto*

subject who performs an intermediary function between the owners of production factors and consumers. This implies that the destination of production to exchange and, therefore, its destination to the market is an essential requirement inherent in the professional character of the business activity, its economic nature or in the function of protection of third parties contained in the business discipline. Hence, the qualification of business is denied to the so-called 'own-account business', which includes hypotheses in which what is produced is consumed or appropriated by the producer without transferring it to third parties' so-called 'own-account undertaking', which encompasses cases in which what is produced is consumed or appropriated by the producer without being transferred to third parties.

However, under the impetus of EU competition law and the jurisprudence of the European Court of Justice, a broader and non-formalistic interpretation of the concept of enterprise, here based on functional, operational and organisational elements, has been established, according to which an undertaking 'encompasses any entity engaged in an economic activity regardless of its legal status'.[17]

The decisive criterion for the regulatory qualification of the undertaking is, therefore, the economic nature of the activity it performs. In other words, the community concept of an undertaking refers to an economic entity characterized by a unified organization of personal, tangible, and intangible elements, which consistently pursues an economic objective so that, according to the established case law of the European Court of Justice,[18] 'any activity consisting in offering goods or services on

commerciale. Diritto dell'impresa (Milano: Utet Giuridica, 2022), I, 37; G. Oppo, 'Principi', in V. Buonocore ed, *Trattato di diritto commerciale* (Torino: Giappichelli, 2001), I, 47; V. Afferni, *Gli atti di organizzazione e la figura giuridica dell'imprenditore* (Milano: Giuffrè, 1973), 235.

[17] In these terms, among others, Case C-97/08 *Akzo Nobel NV and Others* v *Commission of the European Communities*, [2009] ECR I-08237; Case C-309/99 *J.C.J. Wouters, J.W. Savelbergh and Price Waterhouse Belastingadviseurs BV* v *Algemene Raad van de Nederlandse Orde van Advocaten*, [2002] ECR 2002 I-01577; Case C- 55/96 *Job Centre coop. arl.*, [1997] ECR 1997 I-07119; Case C-41/90 *Klaus Höfner and Fritz Elser* v *Macrotron GmbH*, [1991] ECR 1991 I-01979; Case C-244/94 *Fédération Française des Sociétés d'Assurance, Société Paternelle-Vie, Union des Assurances de Paris-Vie and Caisse d'Assurance et de Prévoyance Mutuelle des Agriculteurs* v *Ministère de l'Agriculture et de la Pêche*, [1995] ECR 1995 I-04013, all available at https://onelegale.wolterskluwer.it/. On the evolution of the notion of undertaking see, among many, P. Montalenti, 'Dall'impresa all'attività economica: verso una nuova sistematica?' *Analisi giuridica dell'economia*, 45 (2014) and E. Desana, *Dall'impresa comunitaria alla tutela dell'impresa debole. Spunti per una nuova nozione di impresa* (Roma: Aracne, 2012), 85.

[18] In these terms, see Case C-113/07 *SELEX Sistemi Integrati SpA* v *Commission of the European Communities and Organisation européenne pour la sécurité de la navigation aérienne (Eurocontrol)*, [2009] 2009 I-02207, and more recently, Case C-

a given market constitutes an economic activity': consequently, in the absence of this element, it is not possible to qualify such entity as an undertaking.[19]

Coherently, the European legislation on public procurement (European Parliament and Council Directive 2014/24/EU of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, Art 2.1.10) states that '"economic operator" means a natural or legal person or a public entity or a grouping of such persons and/or entities, including any temporary association of undertakings, which offers on the market the execution of works and/or a work, the supply of products or the provision of services'. That the notion of 'economic operator' encompasses the notion of 'undertaking' is deduced from the previous European Parliament and Council Directive 2004/18/EC of 31 March 2004 on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts, which are specified in Art 1, para 8: 'The term "economic operator" includes the contractor, the supplier and the service provider. It is only used to simplify the text'.[20] As a result, it is possible to say that an entity can only be defined as an enterprise if it operates by offering goods or services on the market.

That being said, it is necessary to verify in which cases an REC, here established as a nonprofit organization, can acquire the nature of an undertaking.

There is no doubt that the European directive intended RECs to be primarily enterprises and that, in many cases, an REC can take on the status of an enterprise in the electricity sector, producing energy and providing services on the market. *Nulla quaestio,* therefore, with respect to the recognition of an REC as an enterprise when it professionally participates in the energy market. In this case, the activities of producing, consuming, and sharing energy constitute an offer of goods on the market, thereby fulfilling the criteria for economic activity under the aforementioned community definition.[21] However, the entrepreneurial

128/21 *Lietuvos notarų rūmai and Others* v *Lietuvos Respublikos konkurencijos taryba*, [2024]; Case C-325/22 *TS and HI* v *Ministar na zemedelieto, hranite i gorite*, [2023], all available at https://onelegale.wolterskluwer.it/.

[19] In this sense, see, among many others, G. Cottino, M. Sarale and R. Weigmann, *Trattato di diritto commerciale, Società di persone e consorzi* (Padova: Cedam, 2004), III, 525 and A. Borgioli, *Consorzi e società consortili* (Milano: Giuffrè, 1985), 432.

[20] In this regard, see Corte di Cassazione 28 October 2019 no 27577; Corte di Cassazione 16 July 2018 no 18801; Corte di Cassazione 25 June 2018 no 16624; all available at https://onelegale.wolterskluwer.it/.

[21] As noted by L. Ruggeri, 'Comunità energetiche e modelli giuridici: l'importanza di una lettura euro-unitaria' *Actualidad Juridica Iberoamericana*, 1222 (2024), 'It is significantly founded on the economic nature of the activity of producing, consuming and sharing energy that makes the Energy Community a subject that professionally enters the energy market favouring its decentralisation and decarbonisation'. In this case, 'The

nature of an REC cannot be taken as a general rule, as such a legal entity may not always engage in energy production or the provision of services on the market. Indeed, the activity of allocating incentives to its members does not automatically qualify an REC as an undertaking.

On the contrary, the mere activity of allocating and distributing incentives among the members appears decisive in excluding the REC from qualifying as an undertaking, because, if it were limited to this activity, it would lack an economic entity with access to the market because the activity of the REC entity would be directed solely 'in-house', that is, to its members.

On the other hand, a consortium with internal activity – whose work is limited to regulating relations between consortium members, monitoring the performance of their obligations and imposing any sanctions – does not carry out its activity with third parties and does not take on the status of an undertaking.

Moreover, even the generally acknowledged[22] entrepreneurial nature of an outsourced consortium is not a foregone conclusion[23] because it is essential to consider the phase of the consortium members' production cycle.[24] Therefore, the entrepreneurship of an externally active consortium

Energy Community as a legal entity in charge of the production, consumption and sharing of energy produced and consumed is an "undertaking" as an entity that carries out an economic activity, regardless of its legal status and the way it is financed'.

[22] Corte di Cassazione 16 December 2013 no 28015, *CED Cassazione* (2013). In a similar vein, see, more recently, Corte di Cassazione 10 March 2023 no 7179 and Corte di Cassazione 29 December 2017 no 31191, all available at https://dejure.it.

[23] As E. Cusa, 'Il consorzio tra soggettività, responsabilità e tipicità' *Rivista di diritto civile*, 328 (2024), agrees: 'Common law itself, on the other hand, allows the consortium (even the internal one) to be an entrepreneur or not to be one'. Similarly, M. Sarale, in G. Cottino, M. Sarale and R. Weigmann, *Trattato di diritto commerciale*, n 19 above, 437, maintains that the entrepreneurial nature of consortia with external activity must be 'ascertained in concrete terms, and not attributed automatically'. In the same vein, G. Marasà, *Consorzi e società consortili* (Torino: Giappichelli, 1990), 85; A. De Martini, 'L'esercizio di imprese attraverso enti mutualistici ed organizzazioni consortili' *Diritto fallimentare*, I, 159 (1983); A. De Sanctis Ricciardone, 'Consorzio con attività esterna e natura di imprenditore' *Giurisprudenza commerciale*, II, 259 (1979). On the assumption of the entrepreneurial character of consortia with external activity, see also the reflections of G.V. Califano, 'La qualità di imprenditore del consorzio', in F. Preite ed, *Cooperative, consorzi e società consortili. Profili sostanziali, notarili e fiscali*, *Consorzi e società consortili: tipologie e operazioni sul capitale* (Milano: Giuffrè, 2019), II, 32; Id, *I consorzi per il coordinamento della produzione e degli scambi e le società consortili* (Milano: Giuffrè, 1999), 39; L. De Angelis, 'Sulla possibilità, per i consorzi, di utilizzare "in trasparenza" i requisiti delle imprese consorziate per l'aggiudicazione di appalti di lavori pubblici' *Contratto e impresa*, 1378 (2000).

[24] In fact, L. De Angelis, 'Ancora sullo scopo e sulla disciplina delle società consortili' *Le Società*, 32 (2018), footnote 31, sharply observes that 'the entrepreneurship of consortia, in addition to depending on the type of phase of the activities of the consortium members regulated or directly exercised on their behalf and in their interest, could also reside in a *lato sensu* auxiliary activity carried out by them for the benefit of the

is also questionable if it performs an activity somehow auxiliary to the activity of the entrepreneurs without the character of commerciality, for example, the provision of a joint warehouse management service. In this respect, the analogy of the activity of mere allocation and distribution of incentives carried out by an REC towards its members is obvious and cannot be considered entrepreneurial in nature.

In addition, it may be useful to reflect on another type of collective self-consumption envisaged by the RED II Directive: self-consumption between members of an apartment block (whether vertical or horizontal).

In this case, it is indisputable that:

(i) the condominium (meant as the set of owners of building units included in the vertical or horizontal condominium, respectively) through its administrator provides the service of sharing incentives to each condominium owner, incentives which are not a profit but a saving on the bill;

(ii) the condominium must try to strike a balance between self-consumption and incentives;

(iii) condominium plants or individual owners' plants[25] of renewable energy production, for the part that is not physically self-consumed, release the relevant electricity to the grid;

(iv) the adherence of the co-owners may be partial because only some of them may adhere.

One might argue that, in all condominiums, *de facto* companies are created between the condominium owners who constitute a self-consumption group aimed at managing the collective self-consumption enterprise. However, it seems clear that what we are seeing is the mere sharing of the respective production and consumption capacity referring only to the owners of building units included in the condominiums. This activity, which aims at reducing costs, falls within the scope of managing individual properties, inherently linked to the existence of vertical or horizontal condominiums. In other words, the self-consumers in the condominium do not intend to establish an electricity company but simply wish to share production and consumption to reduce property-related expenses.

One may question whether this conclusion is also applicable to RECs. Indeed, RECs carry out the same activity as condominiums but extend it to individuals owning or holding properties with relevant Energy Points of Delivery (PODs) within a wider, yet still defined local area (defined by the

consortium members themselves'. *Contra*, the jurisprudential orientation summarised by Corte di Cassazione 29 December 2017 no 31191, available at https://dejure.it.

[25] Individual owners of condominiums may be exclusive owners of renewable electricity production plants not only in the case of horizontal condominiums but also in the case of vertical condominiums (see Art 1122-*bis*, para 2 of the Civil Code).

primary substation). In doing so, they pursue the same purpose of pooling the electricity produced and consumed to allow a reduction in costs on the bill. The absence of a finalistic-functional element characteristic of a company is once again underlined, as RECs do not intend to carry out business activities in the market but aim solely to share energy locally.

The economic balance underlying purely incentive-sharing RECs does not, therefore, appear any different from that of apartment blocks: costs must be covered by revenue, and any surplus is redistributed to reduce expenses related to the consumption of electricity pertaining to a building.

Indeed, autoconsumption groups and RECs differ in the fact that, in the case of autoconsumption groups, they are bound by the inherent contiguity of vertical and horizontal condominiums, whereas RECs are bound by the inherent contiguity of the primary cabin area. Therefore, for the purpose we are concerned with, RECs can be considered a territorially 'enlarged' form of horizontal condominiums, and the relative activity aimed at sharing the energy produced and consumed by the buildings with PODs included in RECs could be linked to the same type of activity of a horizontal condominium; therefore, it would not be a business activity but a mere sharing of energy produced and consumed by the respective buildings to reduce the respective real estate expenses.[26]

IV. Incentive Allocation: A Case-by-Case Approach

Even if it were to be accepted that the activity of distribution of the incentives could constitute an economic activity, it would not be possible to always and in any event classify an REC as an enterprise. Instead, it would be necessary to proceed to an analysis *in casibus* to verify whether this entity exclusively and prevalently focuses on receiving and distributing incentives while delegating production to entities within or outside the REC (a model clearly admitted by the Operational Rules approved by decreto direttoriale 23 February 2024 of the Ministry of the Environment and Energy Security) or whether it operates in the production sector in a residual and minimal manner.

[26] Considering an REC structured as an association, it is important to recall that, as part of their activity, associations may reimburse expenses incurred by members in the interest of the association. (For the limits of admissibility of such reimbursements, see Corte di Cassazione 23 November 2015 no 23890, available at https://dejure.it). In the context of the present investigation, it is worth noting that while the electricity bill primarily addresses the end customer's primary needs, because of the manner and timing in which it is made (coinciding with the production of electricity by the RECs' plants), it also serves the interest of RECs, as it enables them to support and promote their social and environmental goals. The partial reimbursement of the bill (thanks to the incentives) can be seen, in essence, as a reimbursement of an expense also made in the interest of the association itself.

Consider the following possible arrangements:

(i) The REC allocates all incentives for charitable purposes.

If an REC is constituted in the form of an association (recognized or not) and, thanks to the generosity of its consumer and producer members, allocates all its incentives for charitable purposes, it would seem difficult to argue that it engaged in economic activity because it also lacks any function related to the distribution of contributions.

(ii) The REC allocates a minority share of the incentives to its members.

In a different scenario, where an REC established as an association or foundation, due to the generosity of consumers and producers, allocates the majority of its incentives for charitable purposes, while distributing a minority share to its members, according to the pacific orientation,[27] it would acquire the nature of an enterprise. Alternatively, according to the scope of Art 2082 or Art 2201 of the Civil Code, this would be the case only when the economic activity carried out by the entity becomes exclusive or, at least, prevalent, with the consequent application of the rules of the statute of the enterprise (general and special) and, in particular, those relating to potential bankruptcy proceedings of the entities.

In this regard, the now obsolete orientation that denied the entities in Book I of the Civil Code the possibility of qualifying as commercial enterprises appears to have been superseded. Indeed, there are no rules preventing associations or foundations from engaging in any commercial undertakings suitable for achieving the purposes allowed to them. Moreover, by virtue of the principle of form neutrality, according to which the legal system is normally indifferent to the forms that the subjects operating within it choose to achieve a lawful result, it follows that the company cannot be the only form for conducting a private collective enterprise.[28]

It is well known that, for a natural person, the prevalence of entrepreneurial activity is not required to acquire the status of

[27] A. Nigro, 'Gli imprenditori collettivi non societari nel diritto della crisi' *Rivista delle società*, 1597 (2020); A. Cetra, 'Enti del terzo settore e attività di impresa' *Rivista di diritto societario*, 689 (2019); Id, *L'impresa collettiva non societaria* (Torino: Giappichelli, 2003), 68; V. Montani, in G. Ponzanelli ed, *Le associazioni non riconosciute. Artt. 36-42*, in P. Schlesinger, *Il Civil Code. Commentario* (Milano: Giuffrè, 2016), 135; M. Mozzarelli, 'Impresa collettiva non societaria e procedure concorsuali', in G. Palmieri ed, *Temi del nuovo diritto fallimentare* (Torino: Giappichelli, 2009), 150; G.F. Campobasso, 'Associazioni e attività d'impresa' *Rivista di diritto civile*, II, 589 (1994). The applicability of Art 2201 of the Civil Code to associative bodies was sustained by S. Gatti, 'L'impresa collettiva non societaria e la sua disciplina fallimentare' *Rivista di diritto commerciale*, I, 88 (1980) and F. Galgano, *Delle associazioni non riconosciute e dei comitati, Libro I, Delle persone e della famiglia* (Bologna: Zanichelli, 1976), 100.

[28] See R. Costi, 'Fondazione ed impresa' *Rivista di diritto civile*, I, 13 (1968).

entrepreneur. However, for public entities this requirement does apply, as stipulated in Art 2201 of the Civil Code, according to which: 'public entities whose exclusive or principal object is commercial activity are subject to the obligation of registration in the business register'. By virtue of the unitary nature of the concept of entrepreneur, which does not tolerate differentiation between public and private entities, the provision in Art 2201 of the Civil Code is considered the expression of a general rule. Therefore, this rule also extends to foundations and associations, which would not be classified as entrepreneurs if they perform entrepreneurial activities that are accessory and instrumental to the institutional purposes of the entity.[29] According to this orientation, the application of the statute of commercial enterprise should be excluded for all noncorporate collective entities that engage in a purely accessory commercial activity.

However, it is necessary to clarify the meaning of 'exclusive or principal', here referring to the activity carried out by the foundation for the purposes of qualifying it as a commercial enterprise. On this point, it is deemed necessary to give continuity to the authoritative guideline[30] according to which the activity should be considered exclusive or prevalent in a qualitative rather than quantitative sense, that is, only if it is capable of directly achieving, in whole or in part, the purposes of the organization. Therefore, an economic activity will be ancillary both when it is flanked by other non-economic activities that qualitatively predominate or when it is instrumental with respect to the non-economic activity that constitutes the main object of the body in Book I of the Civil Code.

As a result, an REC that distributes only a minority portion of the incentives to its members and allocates the majority to its activities will not qualify as an undertaking because the distribution activity, even if considered a service activity, would not be predominant.

(iii) The REC distributes the majority of incentives to its members.

We still have to deal with a third and final case: an REC in the form of an association that, thanks to the generosity of consumers and producers, allocates a significant part of the incentives to charitable purposes but nevertheless distributes the majority of the incentives to its members. In this hypothesis, the very activity of the REC could fall within the objective

[29] See Corte di Cassazione 29 October 1998 no 10826, *Rivista italiana di diritto del lavoro*, II, 644 (1999). In jurisprudence, the thesis that rests on the analogical application of Art 2201 of the Civil Code, recognising as valid, for the status of commercial entrepreneur to be attributed, not the mere performance of one of the activities listed in Art 2195 of the Civil Code, See Corte di Cassazione 18 September 1993 no 9589, *Diritto fallimentare*, II, 436 (1994); Corte di Cassazione 17 January 1983 no 341, *Archivio civile*, 722 (1983); Corte di Cassazione 9 November 1979 no 5770, *Foro italiano*, I, 358 (1980).

[30] In this regard, the considerations of F. Galgano, 'Il fallimento delle società. Gli aspetti sostanziali', in *Trattato di diritto di diritto commerciale e di diritto pubblico dell'economia* (Padova: Cedam, 1988), 137.

of providing social benefits to its members; therefore, the REC management would represent the social and economic purpose indicated by Art 31, para 1, letter a of decreto legislativo 8 November 2021 no 199.

In this framework, the mere activity of promoting energy produced from renewable sources through the distribution of incentives addressed to its members would constitute the REC's own institutional activity,[31] even if the REC retains part of the incentives to cover its expenses and purposes. In any case, the incentives left to the REC would be qualified as contributions for its institutional purposes and not as fees for specific services differentiated among different members.

For tax purposes, it would appear that the mere activity of incentive distribution falls within the scope of the so-called 'decommercialization' referred to in Art 148, para 1 of the Consolidated Income Tax Act ('TUIR')[32] and Art 79 of the Third Sector Code. In essence, the activity of mere incentive distribution could be considered an institutional activity of the REC carried out towards the generality of its members and the incentives that are attributed by the members to the entity are configured as contributions for the pursuit of its institutional activities.[33]

It must be added that, according to Art 119, para 16-*bis* of decreto legge 19 May 2020 no 34, converted with amendments by legge 17 July 2020 no 77, 'The operation of plants up to 200 kW by Renewable Energy Communities established in the form of non-commercial entities or by condominium owners that adhere to the configurations referred to in Art 42-*bis* of decreto legge 30 December 2019 no 162, converted with amendments by legge 28 February 2020 no 8, does not constitute habitual commercial activity'. The matter consists in understanding whether or not such discipline is to be considered applicable to the RECs no longer regulated by Art 42-*bis* of decreto legge 30 December 2019 no 162. In any event, it is worth noting that, if this provision is indeed applicable, the decommercialization area should also extend (at least partially) to the direct activity of electricity production by RECs.

Obviously, the last considerations relating to this third case are only of fiscal nature and do not exclude the possibility that the REC may be

[31] It is no coincidence that the additional activities indicated in Art 31, para 2, letter f of decreto legislativo 8 November 2021 no 199 are possible additional activities.

[32] According to this rule, 'The activity carried out for members or participants, in accordance with institutional purposes, by associations, consortia and other non-commercial bodies of an associative nature is not considered commercial. The sums paid by the associates or participants by way of associative fees or contributions do not contribute towards forming the overall income'.

[33] In this regard, see L. Salvini, 'Profili fiscali delle Comunità Energetiche Rinnovabili', in S. Monticelli and A. Bonafede eds, *Comunità energetiche 2.0. L'autoconsumo alla luce dei recenti aggiornamenti normativi* (Napoli: Edizioni Scientifiche Italiane, 2024), 212.

considered an enterprise for other purposes (eg, for the application of the discipline of the Code of Corporate Crisis and Insolvency). This interpretation aligns with the definition now accepted in jurisprudence and recently reaffirmed by the Corte di Cassazione.

For some time, the case law of the Corte di Cassazione[34] has noted that the purpose of profit (so-called subjective profit) is no longer an essential element for recognizing the status of a commercial enterprise. Instead, what defines a business activity is the objective economic viability of management, understood as the proportionality between costs and revenues (so-called objective profit). Objective profit translates into the aptitude to achieve the remuneration of production factors,[35] or even in the tendential suitability of revenues to pursue a balanced budget.[36] This criterion is only excluded only if the activity is carried out entirely free of charge.[37] The altruistic purpose in the hypothesis pursued,[38] understood as the allocation of the proceeds to initiatives connected with the institutional purposes of the entity, does not affect the entrepreneurship of the services rendered. It remains legally irrelevant, like the subjective profit motive and any other motive that induces the enterprise to carry out its activity.[39]

V. Conclusions: The Practical Repercussions of the Chosen Theoretical Approach

In light of these reflections, and by applying the issues highlighted by the increasingly articulated legislative landscape in the field of energy, it becomes clear how essential it is to bridge the gap between 'law in the books' and 'law in action'. The interpretation of the jumbled legal framework of reference that regulates energy communities, an expression of the principle of public participation, must aim at enhancing the value of RECs. It is indeed necessary to ensure that Renewable Energy Communities are valued as a tool capable of generating significant social, environmental, and economic impacts, in the wake of the value fabric enshrined in the Constitution, including the principles of solidarity and civic cooperation under Art 2, and horizontal subsidiarity under Art 118, para 4.[40] These principles find their expression in the economic field in Art

[34] Most recently, Corte di Cassazione 10 February 2022 no 4418, *Il Fallimento*, 849 (2022) and Corte di Cassazione 20 October 2021 no 29245, *Il Fallimento*, 17 (2022).

[35] Corte di Cassazione 21 October 2020 no 22955, *Il Fallimento*, 130 (2021) and Corte di Cassazione 26 September 2006 no 20815, *CED Cassazione* (2006).

[36] Corte di Cassazione 3 January 2018 no 42, *CED Cassazione* (2018).

[37] Corte di Cassazione 12 July 2016 no 14250, *Il Fallimento*, 988 (2016).

[38] Corte di Cassazione 19 August 2011 no 17399, available at https://dejure.it.

[39] Corte di Cassazione 24 March 2014 no 6835, *Il Fallimento*, 875 (2016).

[40] In this regard, see the acute reflections of E. Cusa, 'Sviluppo sostenibile', n 2 above,

43 of the Constitution and in environmental protection in Arts 9 and 41 of the Constitution.[41]

From this perspective and in light of the supranational mosaic that makes up the RECs' regulation, it must be concluded that an REC does not necessarily qualify as an undertaking.

On the sidelines of the critical remarks set out above and recognizing the problematic profiles of the institution under consideration, one cannot overlook the hope that the described orientation will be affirmed. In light of previous reflections, this approach appears to be more aligned with and conducive to growth and success. Such an approach would activate the economic levers capable of influencing the behaviour of various market players and encouraging citizens to take direct responsibility in activities of general interest,[42] ultimately achieving a 'third way' between State centralization of functions and liberalization of energy production and exchange.

This is obviously not a question of a merely theoretical nature, given that significant practical and operational repercussions derive from whether or not we embrace the idea of RECs being entrepreneurial entities: consider, for example, the potentially relevant tax effects resulting from the taxation of business income.[43]

Therefore, it is necessary to address the institution of RECs by interpreting their regulation *magis ut valeat*,[44] that is, to the best of their expansive capacities, without harnessing an undeniably articulated phenomenon through theoretical forcing that would have the practical reverberation of making it more difficult for citizens to approach those forms of RECs (associations of mere incentive sharing) that are simpler and closer to the needs of the territory. Doing so would then thwart the

71; R. Miccù and M. Bernardi, 'Premesse ad uno studio sulle *Energy Communities*: tra *governance* dell'efficienza energetica e sussidiarietà orizzontale' *federalismi.it*, 4, 603 (2022). On this point the Corte Costituzionale has, in several rulings, declined the principle of civic collaboration in the argument of 'commonality of interests': see decisions 17 April 1968 no 23, 21 May 1975 no 112, 16 February 1982 no 40, 7 April 1988 no 423, 2 May 1991 no 188, ordinanza 6 July 2012 no 174, ordinanza 12 December 2012 no 285, 5 November 2015 no 223, all available at https://www.cortecostituzionale.it/actionPronuncia.do.

[41] On the constitutional foundation of RECs, see the considerations of F. Sanchini, 'Le comunità energetiche rinnovabili tra fondamento costituzionale e riparto di competenze legislative Stato-Regioni. Riflessioni alla luce della sentenza n. 48 del 2023 della Corte costituzionale' *federalismi.it*, 8, 152 (2024).

[42] It is no coincidence that Energy Communities are welcomed as 'spontaneous initiatives resulting from local civil society activism' by T. Favaro, *Regolare la «transizione energetica»: Stato, mercato, innovazione* (Padova: Cedam, 2020), 118.

[43] See L. Salvini, 'Profili fiscali', n 33 above, 212.

[44] This is a well-known cardinal principle of civil interpretative science (*Quotiens in actionibus aut in exceptionibus ambigua oratio est, commodissimum est id accipi, quo res de qua agitur magis valeat quam pereat*, Iul. l. 12 D. *de rebus dubiis* 34, 5).

essence of the current energy transition, which sees the State-market relationship as being replaced by a more virtuous balance between the State, market, and community.

Only in this way will it be possible to test an innovative model of 'horizontal' collaboration involving stakeholders. This model aims to empower individuals to participate in activities of general interest, thereby advancing the development of renewable energies.

The Impact of Contractual Energy Sustainability on Vulnerable Persons and on Market Regulation

Manuela Giobbi*

Abstract

The relevance of the contract as an effective regulation of the energy market and protection of human rights is being increasingly highlighted. Sustainability is a specific condition that all activities must meet to ensure the equitable development of present and future generations. Consequently, the principle of sustainability is now an essential component of corporate due diligence, negotiating relationships in the market, and consumer behaviour. Therefore, it is imperative to analyse how the contract can facilitate sustainable development, contribute to society, and act as an instrument to support vulnerable people.

Key words

Contract, Energy Market, Sustainability, Vulnerable Consumers.

I. Sustainability between the Protection of the Individual and the Environment. Introduction

The inseparability of protecting the individual and the environment[1] is increasingly evident within the energy market, where contractual models are more and more aligned with the logic of sustainability and social utility[2] are emerging.

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[1] N. Lipari, 'Introduzione', in M. Pennasilico ed, *Contratto e ambiente. L'analisi "ecologica" del diritto contrattuali* (Napoli: Edizioni Scientifiche Italiane, 2016) 16-17; A. Lepore, 'Principio di solidarietà e autonomia negoziale nel sistema giuridico italiano' *Annali della Facoltà di giurisprudenza dell'Università di Camerino*, 9, 4 (2020).

[2] A. Camedda, 'Vulnerability and Sustainability in the Electricity Market' *Rivista trimestrale di diritto dell'economia*, 543 (2022); T. Favaro, *Regolare la «transizione energetica»: Stato, Mercato, Innovazione* (Milano: Cedam, 2020), 24; G. Perlingieri, '«Sostenibilità», ordinamento giuridico e «retorica dei diritti». A margine di un recente libro' *Foro napoletano*, 102 (2020).

Sustainability is a specific condition that every public or private activity must meet to ensure development and growth for present and future generations.[3]

The need then arises to remodel the contract on the basis of the new economic, social and environmental requirements so that the dynamic continuity of its function for the realization of the interest of the parties can be satisfied.[4]

The contract is liable to change due to the variability of relationships and in relation to market-wide events. In this perspective, one can no longer come to identify hypotheses of invalidity of the contract on the basis of a statically determined judgement, but rather in relation to the suitability of its function in realizing the interests underlying the concrete case.[5]

The renewed analysis of the contract, along with the changing energy behaviour of all market players,[6] requires that every choice is sustainable and fits into a process of energy production and that safeguards people's well-being.

Negotiation agreements must consider various subjective legal situations such as free business, the right of access to energy,[7] the protection of ecosystems, the dignity of the individual, the right not to be discriminated against, etc.

Therefore, it is essential to create contractual content where the freedom of businesses does not hinder the values of the individual. Instead, it should help rebalance the different positions of the contracting parties and contribute to the proper functioning of the market sector in which the contract functions.[8]

[3] A. Jannarelli, 'Principi ambientali e conformazione dell'autonomia negoziale: considerazioni generali', in M. Pennasilico ed, *Contratto e ambiente. L'analisi "ecologica" del diritto contrattuali* (Napoli: Edizioni Scientifiche Italiane, 2016), 25.

[4] C.M. D'Arrigo, 'Il controllo delle sopravvenienze nei contratti a lungo termine tra eccessiva onerosità e adeguamento del rapporto', in R. Tomassini ed, *Sopravvenienze e dinamiche di riequilibrio* (Torino: Giappichelli, 2003), 491.

[5] A. Jannarelli, n 3 above, 32-33.

[6] R. Caterina, 'Psicologia della decisione e tutela del consumatore' *Analisi giuridica dell'economia*, 4 (2012); Id, 'Architettura delle scelte e tutela del consumatore' *Consumatori, Diritti e Mercato*, 73-79 (2012).

[7] The European Pillar of Social Rights Action Plan, no 20 'Access to essential services': 'Everyone has the right to access essential services of good quality, including water, sanitation, energy, transport, financial services and digital communications. Support for access to such services shall be available for those in need', available at https://op.europa.eu/webpub/empl/european-pillar-of-social-rights/en/ (last visited 21 June 2024).

[8] On sustainability and human rights, see P. Benedek, K. De Feyter and F. Marrella, *Economic Globalization and Human Right* (Cambridge: Cambridge University Press, 2007), 93; E. Capobianco, 'Globalizzazione, mercato, contratto' *Persona e mercato*, 3, 11-19 (2017); M. Zarro, 'Tutela dell'ambiente e responsabilità dell'impresa nella recente

II. Corporate Sustainability Due Diligence and Sustainable Consumer Choices. The Tightening of Taxation as a Measure for the Implementation of Environmental Policy and Human Rights

By contributing to the regulation of concrete cases, the contract becomes an instrument for realizing both individual and general interests. It merges the open and competitive market structure with justice and solidarity to improve people's well-being.

Directive 2024/1970/EU[9] introduces due diligence requirements for companies to achieve sustainability goals across all sectors of the economy.

However, the duty of companies to implement due diligence in their operations is not merely a sanction for violating the sustainability principle; it is a requirement to prevent negative environmental outcomes and ensure effective protection for people.

Additionally, the proposal for a European regulation on improving the internal energy market seeks to improve investment conditions for companies pursuing decarbonization paths.[10] At the same time, it gives consumers, who are seen as the pivotal element

proposta di direttiva sulla due diligence aziendale' *Rassegna di diritto civile*, 1219 (2024); A. Beckers, 'The Invisible Networks of Global Production: Re-Imagining the Global Value Chain in Legal Research' 95 *European Review* of *Contract Law* (2020).

[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 [2024] OJ L1/58.

[10] See Commission Staff Working Document, 14 March 2023 SWD(2023) 58 final. Among the different forms of support for the installation of plants for the production of energy from renewable sources, see 'Feed-in tariffs (FITs)', Fixed feed-in premiums (FIP), Block Exemption 2014 (GBER), 'Linee Guida sugli aiuti di Stato per la protezione dell'ambiente e l'energia (EEAG)', 'Sliding feed-in premiums o contratti per differenza «unilaterali» (CfD)'. On this point, see C. Regali Costa Do Amaral, 'La feed-in-tariff in UE: la Corte afferma la "non obbligatorietà" dei regimi di sostegno nella promozione delle energie rinnovabili' *DPCEonline*, 4, 3057 (2019); Case C-180/18, C-286/18, C-287/18 *Agrenergy srl, Fusignano Due srl* v *Ministero dello Sviluppo Economico*, Judgment of 11 July 2019, available at www.curia.europa.eu; M.T. García Alvarez and R.M. Mariz Perez, 'Analysis of the Success of Feed-in Tariff for Renewable Energy Promotion Mechanism in the EU: Lessons from Germany and Spain' *Procedia Social and Behavioral Sciences*, 65, 52 (2012); L. Ruggeri, 'Diritto della transizione e sostenibilità: tra tutela del mercato e protezione della persona', in Id and A.E. Caterini eds, *Produzione e consumo sostenibili tra politiche legislative e prassi adattive* (Napoli: Edizioni Scientifiche Italiane, 2023), 32; OECD, *OECD Guidelines for Multinational Enterprises on Responsible Business Conduct* (Paris: OECD Publishing, 2023), available at https://doi.org/10.1787/81f92357-en (last visited 24 June 2024). The OECD *Guidelines for Multinational Enterprises on Responsible Business Conduct* (the *Guidelines*) are recommendations jointly addressed by governments to multinational enterprises to enhance the business contribution to sustainable development and address adverse impacts associated with business activities on people, planet, and society.

of the future productive energy system, a central and increasingly active role rooted in sustainability. This should guide all users towards contractual choices that can be tailored to their specific energy needs. Therefore, specific measures must be taken to tackle economic vulnerability and protect people who are not adequately protected by unsustainable operating practices and excessively high energy prices.

Sustainable business due diligence and consumer behaviour can also be mediated through mechanisms such as specific taxation. Of particular interest in this context is a recent decision of the Court of Justice[11] concerning a Spanish company's request for exemption from double taxation on the purchase of coal for energy production and sale to consumers.

The Court noted that the taxation of coal used for energy production, introduced by legislation in domestic law, must always be assessed in relation to environmental sustainability and the protection of persons. In fact, the need to foster the goals of decarbonizing the energy system, protecting human rights, and containing prices to mitigate consumer vulnerability can never allow a reduction in taxation, not even through broad interpretations of each Member State's domestic legislation. To do otherwise would deprive the 'specific purpose' of taxation, which is to promote social, economic, and environmental sustainability.

Drawing on previous judgments, the Court identified the 'specific purpose' not as the economic needs usually underlying taxation, but as the goal of 'encouraging the use of energy that does not harm people or the environment'.

Given this requirement, taxation should be even more stringent if, based on the assessment of the concrete case, there is a direct link between the use of taxation and its 'specific purpose'. The tightening of taxation must therefore be considered correct and should be promoted whenever it contributes to the effective implementation of environmental policy and the protection of the individual.

According to the Court, this effectively steers the behaviour of companies towards more sustainable operating systems. Consequently, consumer behaviour is also directed towards energy consumption choices from renewable sources. Even through taxation, sustainability becomes a fundamental part of corporate

[11] Case C-833/21 *Endesa Generación SAU* v *Tribunal Económico Administrativo Central*, Judgment of 22 June 2023, available at www.curia.eu; J. Tribout, 'Fiscalité, taxation des produits énergétiques et de l'électricité' *Europe*, 8-9, 305 (2023), Comm. (FR).

due diligence in business activities and in the resulting negotiations. If the change in the manner in which businesses produce goods and services is set in the context of raising awareness of sustainable development, every economic activity is transformed to respect human rights and biodiversity.[12]

III. The Contract as a Possible Vehicle for the Realization of Sustainable Development

Art 41 of the Italian Constitution prohibits private economic initiatives that conflict with social utility or that are carried out in such a way as to harm security, freedom, human dignity, health, and the environment.[13]

It is necessary to analyse how the contract becomes a vehicle for the realization of sustainable development, sociality, and an instrument to support vulnerable persons. The interests to be protected are diverse and integrate aspects that tend both towards the smooth functioning of the energy system and the realization of intergenerational well-being.[14]

[12] M. Libertini, 'Sulla proposta di Direttiva UE su Dovere dei diligenza e responsabilità delle imprese' *Rivista delle società*, 325-335 (2021); A.M. Pacces, 'Sustainable Corporate Governance: The Role of the Law', in D. Busch, G. Ferrarini and S. Grünewald eds, *Sustainable Finance in Europe: Corporate Governance, Financial Stability and Financial Markets* (London: Palgrave Macmillan, EBI Studies in Banking and Capital Markets Law, 2021), 151-174. On the contractual instrument for human rights and environmental protection as regards business activities and sustainability and corporate social responsibility, see L. Valle and M.C. Marullo, 'Contract as an Instrument Achieving Sustainability and Corporate Social Responsibility Goals' 24 *International Community Law Review*, 100-123 (2022).

[13] F. Bertelli, *Le dichiarazioni di sostenibilità nella fornitura di beni di consumo* (Torino: Giappichelli, 2022), 2; G. Scarselli, 'I nuovi artt. 9 e 41 Cost.: centralità dell'uomo e limiti di revisione costituzionale', available at www.giustiziainsieme.it (last visited 26 June 2024); D. Bedford, 'Human Dignity in Great Britain and Northern Ireland', in P. Becchi and K. Mathis eds, *Handbook of Human Dignity in Europe* (Cham: Springer, 2018), 8-15; S.G. Clark, E.J. Andrews and A.E. Lambert, 'Human Dignity and Ecological Identity: A Case by Norman Michael Kearney' *Policy Sciences and the Human Dignity Gap. Natural Resource Management and Policy* (Cham: Springer, 2024), 58.

[14] United Nations 1987, Report of the World Commission on Environment and Development. Our Common Future, the so-called Brundtland Report, available at https://www.are.admin.ch/are/de/home/medien-und-publikationen/publikationen/nachhaltige-entwicklung/brundtland-report.html; Resolution A/RES76/300, The human right to a clean, healthy and sustainable environment, which recognizes that 'the human rights implications of environmental damage are felt by individuals and communities around the world, the consequences are felt most acutely by women and girls and those segments of the population that are already in vulnerable situations, including indigenous peoples, children, older persons and persons with disabilities'.

According to the principle that 'no-one is left behind' introduced by the Next Generation EU,[15] combating environmental degradation is crucial, as its harmful effects affect people and to an even greater extent those in vulnerable situations.

The concept of vulnerability provided for in Art 28, Directive 2019/944/EU, and Art 11, Legislative Decree 2021/210, can be related to individuals' conditions of hardship. These are not exhausted in predetermined hypotheses but must be identified from time to time by the parties involved in shaping the contractual content.[16]

This perspective casts a new light on the negotiation relationship in which the weak condition of the contracting party is traditionally traced back to the consumer's lack of information, because it is now enriched by different elements pertaining to solidarity and personalism.

Even non-economic aspects, such as solidarity, sustainability and vulnerability, converge into negotiating relationships, overcoming the traditional logic of exchange, and serving as vehicles to safeguard general interests. Environmental sustainability may not be the explicit objective of the contract but it nevertheless informs the underlying purpose of promoting and protecting the values that guide negotiating autonomy.[17]

The practice of recourse to bargaining and private autonomy is becoming increasingly prevalent across a diverse range of contexts, to the extent that a 'contractualization of society' can be observed. Bargaining is increasingly used to regulate economic activity, justice, labour, the activities of the public administration, etc.

[15] Communication from the Commission to the European Parliament, the European Council, the European Economic and Social Committee and the Committee of the Regions, 'Europe's Moment: Repair and Prepare for the Next Generation' COM(2020) 456 final, 27 May 2020, available at eur-lex.europa.eu/legal-content/IT/TXT/PDF/?uri=CELEX:52020DC0456&rid=10 (last visited 22 June 2024).

[16] See A. Fusaro, 'Il negozio della persona vulnerabile e il linguaggio delle invalidità' *Ars Interpretandi*, 39 (2019). On this point, see L. Ruggeri and M. Giobbi, 'Vulnerabilità economica tra diritto emergenziale e contrattuale' *Actualidad Juridica Iberoamericana*, 340 (2020). See also A. Gentili, 'La vulnerabilità sociale. Un modello teorico per il trattamento legale' *Rivista critica di diritto privato*, 41 (2019); E. Battelli, 'I soggetti vulnerabili: prospettive di tutela della persona' *Diritto della famiglia e delle persone*, 283 (2020), Id, 'Un contributo alla riflessione sulle situazioni di vulnerabilità e di debolezza contrattuale nella prospettiva dei limiti dell'autonomia privata', in M. Barcellona et al, *Per i cento anni dalla nascita di Renato Scognamiglio* (Napoli: Jovene, 2022), I, 97; F. Rossi, 'Forme della vulnerabilità e attuazione del programma costituzionale' *Rivista AIC*, 1 (2017).

[17] A. Jannarelli, n 3 above, 20.

A different configuration of contractual relationships arising from the market is envisaged to more effectively satisfy the interests of the parties involved. Similarly, the notion of consumer is broadened, which energy market legislation[18] seems to extend to an increasingly diverse, active and dynamic plurality of subjects that must be identified in the context in which they operate,[19] and which goes beyond the vision of the consumer as a 'monolithic' category.[20]

IV. Private Autonomy, Contract, the Energy Market. Soft Law

One of the increasingly important aspects of the contract is its suitability to generate economic benefits also by means of activities that are not directly patrimonial, but nevertheless compatible with the full development of the person.[21]

If the fundamental values of the person, equality and the social dimension[22] come first in energy negotiations,[23] it must also be taken into account that the content is determined by heterogeneous regulation that is no longer only referable to law, but also to so-called soft law. For example, the breadth of the powers delegated to the ARERA authority allows for regulation consisting of the exercise

[18] European Parliament and Council Directive 2024/1760/EU of the of 13 June 2024 on corporate sustainability due diligence and amending Directive (EU) 2019/1937 and Regulation (EU) 2023/2859, n 9 above.

[19] L. Ruggeri, 'Consumatore e prosumerismo energetico nel quadro regolatorio europeo' *Actualidad Juridica Iberoamericana*, 16 bis, 3292 (2022); N. Reich, H.W. Micklitz, P. Rott and K. Tonner, *European Consumer Law* (Cambridge: Intersentia, 2014), 32-41; V. Rizzo, 'La riforma del codice del consumo nel prisma delle fonti' *Le Corti umbre*, 412 (2015).

[20] L. Ruggeri, 'Consumatore e prosumerismo energetico nel quadro regolatorio europeo', n 19 above, 418.

[21] P. Perlingieri, 'Nuovi profili del contratto', in Id, *Il diritto dei contratti fra persona e mercato* (Napoli: Edizioni Scientifiche Italiane, 2003), 418.

[22] On this point, see M. Angelone, 'La modernizzazione delle norme europee sulla protezione dei consumatori: novità e prospettive in materia di clausole vessatorie', in E. Bettini and D. Tondini eds, *Un nuovo rinascimento per l'Europa: il ruolo della ricerca e della formazione. Atti del V Forum internazionale del Gran Sasso* (Teramo: Diocesi di Teramo-Atri, 2023), 621-628; G. Alpa, *Diritto privato europeo* (Milano: Giuffré: 2016), 502; L. Di Nella, 'La scuola di Friburgo o dell'ordoliberalismo', in N. Irti ed, *Diritto ed economia. Problemi e orientamenti teorici* (Padova: Cedam, 1999), 171; E. Capobianco, n 8 above, 1117, where the author notes that the market is no longer seen merely as a place intended for the realization of profit, but rather as a normative space in which personalistic and solidaristic principles, rules and values, the centrality of the person and the recognition of human rights take on relevance.

[23] See, M. Angelone, n 22 above, 632. On 'sustainable globalisation' and human rights see P. Perlingieri, Mercato, solidarietà e diritti umani, in Id ed, *Il diritto dei contratti tra persona e mercato* (Napoli: Edizioni Scientifiche Italiane, 2003), 239.

of regulatory powers, which intervene in different phases of the negotiation agreement.

Thus, the regulation of the energy authority defines the process of contract formation and conclusion, establishing what behavioural obligations or clauses are to be included.[24] In addition, the guidelines of leading energy consumer associations and energy service providers also contribute to the content of the contract. These 'operative rules'[25] help shape the content of the negotiation relationship and influence the contractual choices of the contracting parties. The inclusion of clauses in contracts that regulate their production and distribution activities has become increasingly common for companies operating internationally. These clauses often refer to the codes of conduct that companies themselves adopt, in accordance with the soft-law rules issued by international organizations or conventions pertaining to specific economic and social sectors.[26]

When such clauses are included in the contract, they become binding on all parties involved, thereby extending their impact across the entire supply and distribution chain of companies, and the community.

Contracting then assumes the role of filling regulatory gaps in the protection of people and the environment, which still exist in, for example, developing countries.

In this way, the contract serves to regulate legal relationships that transcend the individual legal systems of countries.[27] It is in this context that the contractual instrument takes on a precise role in the protection of human rights.[28]

[24] M. Francesca, 'Bene-energia. Abusi di mercato e nuovi domini' *Nuovo diritto civile*, 26 (2023); A. Ciatti Càimi, 'Poteri di regolazione delle Authorities, sopravvenienze normative e rapporti di durata?', in P. Perlingieri, S. Giova And I. Prisco eds, *Conformazione del contratto e Autorità indipendenti nel diritto italo-europeo, Atti del 16°Convegno Nazionale SISDiC* (Napoli: Edizioni Scientifiche Italiane, 2023), 199; P. D'Addino Serravalle, 'Tutela del consumatore e servizi essenziali', in Id ed, *Mercato ed Etica* (Napoli: Edizioni Scientifiche Italiane, 2009), 322.

[25] Decreto CACER and TIAD. Regole operative per l'accesso al servizio per l'autoconsumo diffuso e al contributo PNRR, Allegato 1, in gse.it/servizi-per-te/autoconsumo/gruppi-di-autoconsumatori-e-comunita-di-energia-rinnovabile.

[26] D.L. Shelton, *Advanced Introduction to International Human Rights Law* (Cheltenham-Northampton: Elgar, 2014), 142; W. Kalin and J. Kunzli, *The Law of International Human Rights Protection* (Oxford: Oxford University Press, 2019).

[27] L. Valle, *Il contratto e la realizzazione dei diritti della persona* (Torino: Giappichelli, 2020), 348-383.

[28] A. Bonfanti, *Imprese multinazionali, diritti umani e ambiente* (Milano: Giuffré, 2012), 251.

The contract is no longer just an instrument for regulating the interests of private parties, but also becomes a means of 'integrating the sources of law' in all economic and social aspects.

However, even if the 'second-level regulation' contributes to the definition of the content of the contract, it does not seem to restrict or limit the negotiating autonomy of the parties. Rather, there is an increasing integration of the will of the parties, of secondary-level legislation and regulation into the content aspects of the contractual agreements.[29]

In this context, this renewed perspective reshapes the sources that define energy contractual relationships, where negotiating autonomy now plays a crucial role.[30] In a globalized market characterized by a plurality of regulatory techniques, contractual relationships increasingly emerge as a synthesis of both negotiating autonomy and heteronomy.[31] The heteronomy of regulatory techniques, including the judgments of the European Court,[32] aims is to guide the behaviour of the parties in diversified energy production towards outcomes that satisfy a wide range of interests.

Thus, the negotiated agreement that contributes to the regulation of concrete situations becomes an instrument designed to meet both individual and general interests.[33]

The relationship between contracts and fundamental rights of the individual must be considered not only in the context of the energy market but also in the context of new technologies, access to new utilities arising from technological progress, medical practices,

[29] See, C. Solinas, *Il contratto «amministrato». La conformazione dell'operazione economica privata agli interessi generali* (Napoli: Edizioni Scientifiche Italiane, 2018), 59.

[30] On this point, see P. Perlingieri, *Diritto dei contratti e dei mercati* (Napoli: Edizioni Scientifiche Italiane, 2003), 878. See also N. Lipari, *Le fonti del diritto*, (Milano: Giuffrè, 2008), 87; G. Parodi, 'Le fonti del diritto. Linee evolutive', in A. Cicu et al eds, *Trattato di diritto civile e commerciale* (Milano: Giuffrè, 2008), 87; G. Morbidelli, 'Il principio di legalità e i c.d. poteri impliciti' *Diritto amministrativo*, 703 (2007); C. Carrera, 'Autonomia contrattuale e potere regolamentare dell'autorità per l'energia elettrica ed il gas' *Urbanistica e appalti*, 1120 (2013). On this point, see E. del Prato, 'Ragionevolezza e bilanciamento', in F. Manolita, *Diritto comunitario e sistemi nazionali*: *pluralità delle fonti e unitarietà degli ordinamenti* (Napoli: Edizioni Scientifiche Italiane, 2010), 198; F. Casucci, *Il sistema giuridico «proporzionale» nel diritto privato comunitario* (Napoli: Edizioni Scientifiche Italiane, 2001), 378; S. Polidori, 'Principio di proporzionalità e disciplina dell'appalto' *Rassegna di diritto civile*, 686 (2004).

[31] F. Longobucco, 'La contrattazione ecologicamente conformata nell'ottica del diritto civile: brevi note', available at https://www.ambientediritto.it (last visited 24 June 2024).

[32] Case C-833/21, n 10 above.

[33] See P. Perlingieri, 'L'incidenza dell'interesse pubblico' *Rassegna di diritto civile*, 937 (1986); K. Bosselmann, *The Principle of Sustainability: Transforming Law and Governance* (New York: Routledge, 2017), 75.

scientific research, etc. Thus, the contractual instrument lends itself to be used more flexibly and for broader regulatory purposes than just the economic aspects of the market.[34]

To achieve a fair composition of contractual content, it is essential to balance the economic aspects of the market with values such as human dignity, equality, and social cohesion.[35] It is crucial to prevent any unfair or discriminatory treatment between contracting parties, whether individually or collectively.

The provisions of European and domestic legislation on the energy market are designed to prevent unfavourable, exclusionary, or restrictive contractual conditions that could undermine the exercise of private autonomy. Such legislation aims to avoid discriminatory effects that could prevent or in any case limit access to energy and energy services to certain categories of consumers.[36]

The right to non-discrimination is also gradually being included among subjective legal situations and is one of the aspects to be considered in the bargaining process.[37] This allows for the identification of not only economic elements in the bargaining process but also aspects pertaining to more flexible management in pursuing the interests of the parties and the community. It also facilitates the implementation of the principle of sustainability but also social and environmental benefits.

[34] L. Valle, n 12 above, 357-360; M.R. Marella, 'Diritti della persona', in G. Amadio and F. Macario eds, *Diritto civile, norme, questioni, concetti* (Bologna: Il Mulino, 2014), I, 136; C. Mak, *Fundamental Right in European Contract Law, A Comparison on the Impact of Fundamental Rights on Contractual Relationships in Germany, the Netherlands, Italy and England* (Alphen aan den Rijn, The Netherlands: Kluwer Law International, 2008); C. Busch and H. Schulte-Nolke, *Fundamental Rights and Private Law* (Munich: European Law Publishers, 2011), 27; E. McKendrick, *Contract Law* (London: Palgrave Macmillan, 2009), 11; G. Resta, *Autonomia privata e diritti della personalità* (Napoli: Jovene, 2005); Id, *Dignità, persone, mercati* (Torino: Giappichelli, 2014); Id, 'Diritti fondamentali e diritto privato nel contesto digitale', in F. Caggia and G. Resta eds, *I diritti fondamentali in Europa e il diritto privato* (Roma: Tre Press, 2019), 117;

[35] M. Pennasilico, 'Ambiente e iniziativa economica: quale "bilanciamento"?' *Nuove leggi civili commentate*, 49 (2019).

[36] M. Barbera, 'Introduzione. Il nuovo diritto antidiscriminatorio: innovazione e continuità', in Id ed, *Il nuovo diritto antidiscriminatorio, il quadro comunitario e nazionale* (Milano: Giuffrè, 2007), XIX; D. Maffeis, 'Il divieto di discriminazione', in G. De Cristofaro ed, *I «principi» del diritto comunitario dei contratti. Acquis communitaire e diritto privato europeo* (Torino: Giappichelli, 2009), 267; M. Grondona, 'Il diritto contrattuale, ovvero il diritto della fiducia. Premesse per una discussione', in A. Marchese ed, *«Sul contratto», Raccolta di scritti di presentazione del volume «Contratto» della collana «I tematici» dell'Enciclopedia del diritto* (Messina: University Press, 2023), 76.

[37] G. Carapezza Figlia, 'Il divieto di discriminazione quale limite all'autonomia contrattuale' *Rivista di diritto civile*, 1418 (2015).

These aspects characterize the new energy market context and, together with the objectives of social justice and solidarity, are aimed at enhancing individual and collective well-being.[38] This highlights the need to reconcile negotiating autonomy with the right of all consumers or stakeholders to have equal access to the energy market.[39]

Equal participation in the market must not be affected, ensuring that access to energy is not hindered, particularly for vulnerable populations. It becomes essential to balance the different interests of the parties and to move beyond established production methods, through self-initiative that allows greater cooperation among all market players in the performance of the private and public functions of energy management.

What must be protected at all times are the interests of customers and the market, reflecting both the public and private aspects of regulation.[40]

V. Final Remarks

Precisely for the purpose of market participation, active customers have the possibility of concluding a wide range of

[38] M. Angelone, n 22 above, 633; P. Perlingieri 'Le ragioni del mercato e le ragioni del diritto dalla Comunità economica europea all'Unione europea', in E. Caterini ed, *Il diritto dei consumi* (Napoli-Rende: Edizioni Scientifiche Italiane, 2009), IV, 9. See also A. Gambaro, 'I beni', in A. Cicu and F. Messineo eds, *Trattato di diritto civile* (Milano: Giuffrè, 2012), 183; L. Dell'Agli, 'L'accesso all'energia elettrica come diritto umano fondamentale per la dignità della persona umana' *Rivista giuridica dell'ambiente*, 713, (2007).

[39] G. Carapezza Figlia, *Il divieto di discriminazione e autonomia contrattuale* (Napoli: Edizioni Scientifiche Italiane, 2013), 1387; P. Femia, *Interessi e conflitti culturali nell'autonomia privata e nella responsabilità civile* (Napoli: Edizioni Scientifiche Italiane, 1996), 456; D. Maffeis, *Offerta al pubblico e divieto di discriminazione* (Milano: Giuffrè, 2007), 401; Id, 'Il diritto contrattuale antidiscriminatorio nelle indagini dottrinali recenti' *Nuove leggi civili comm*entate, 161 (2015); A. Gentili, 'Il principio di non discriminazione nei rapporti civili' *Rivista critica di diritto privato*, 207 (2009); P. Morozzo della Rocca, 'Gli atti discriminatori e lo straniero nel diritto civile', in Id ed, *Principio di uguaglianza e divieto di compiere atti discriminatori* (Napoli: Edizioni Scientifiche Italiane, 2002), 19; B. Troisi, 'Profili civilistici del divieto di discriminazione', in *Il diritto civile oggi. Compiti scientifici e didattici del civilista* (Napoli: Edizioni Scientifiche Italiane, 2006), 295.

[40] See, O. Cherednychenko, 'The Constitutionalization of Contract Law: Something New Under the Sun?' 3 *Electronic Journal of Comparative Law* (2008); J. Basedow, 'Foreword', in V. Trstenjak and P. Weingerl eds, *The Influence of Human Rights and Basic Rights in Private Law* (Switzerland: Springer, 2016), VI.

contracts,[41] eg, plant leases, power purchase agreements,[42] etc. Energy sharing can also be achieved through contractual schemes chosen by the parties that align with their shared interests and that may involve, for example, collaboration in production activities, the use of energy services, etc. Such bargaining has content that varies according to the interests that the parties seek to achieve. It is evident that the collective interest often takes precedence over the individual interest.

In this perspective, contracts become vehicles for the implementation of social demands and for safeguarding general interests. Agreements increasingly arise from public and private collaboration to achieve general interest goals.[43] For example, environmental protection is increasingly being pursued through contracts such as the Emission Reduction Purchase Agreements, which are designed as a mechanism to assist countries in achieving sustainability goals.[44]

Therefore, contracting is also the main tool in administrative activities between public and private entities and municipalities, with the growing use of public-private partnerships as an example.[45]

[41] See A. Paudel et al, 'Peer to Peer Trading in a Prosumer Based Microgrid: A Game Theoretic Model' 8 *IEEE Transactions on Industrial Electronics*, 6087-6097 (2018); M. Meli, 'Autoconsumo di energia rinnovabile e nuove forme di energy sharing' *Nuove leggi civili comm*entate, 655 (2020); T. Favaro, 'Può la tecnologia regolare? Blockchain e «scambio tra pari» di energia rinnovabile' *Rivista della regolazione dei mercati*, 309 (2019), available at https://rivistadellaregolazionedeimercati.it. See, V. Palmisano, 'Il *Clean Energy Package* e gli abilitanti normativi al modello *peer to peer* e allo *smart contract*. Un nuovo modello di energia decentrata e partecipata', in E. Bruti Liberati, M. De Focatiis and A. Travi eds, *Il teleriscaldamento, la blockchain e i contratti intelligenti* (Padova: Cedam, 2019), 88.

[42] Art 15 *bis*, par 1, letter *f*, Proposal for a Regulation of the European Parliament and of the Council COM(2023) 148 final, 2023/0077 (COD).

[43] See, M. Maltoni, 'La fondazione di partecipazione: natura giuridica e legittimità' *Fondazioni di partecipazione*, I, *Quaderni della Fondazione Italiana per il Notariato*, 25 (2007); M.P. Chiti, 'La presenza degli enti pubblici nelle fondazioni di partecipazione tra diritto nazionale e diritto comunitario' *Quaderni della Fondazione Italiana per il Notariato*, 32 (2007).

[44] Clean Development Mechanism (CDM), defined in Art 12 of the Protocol, allows a country with an emission-reduction or emission-limitation commitment under the Kyoto Protocol (Annex B Party) to implement an emission-reduction project in developing countries, available at https://unfccc.int/process-and-meetings/the-kyoto-protocol/mechanisms-under-the-kyoto-protocol/the-clean-development-mechanism (last visited 24 June 2024).

[45] See L. Ruggeri, 'Ambiente e tecnologie: nuove sfide per la tutela della persona', 6 (2023), available at https://ambientediritto.it, where it is noted that the public-private dichotomy is destined for significant value convergence: the absence of central authorities capable of governing the transactions taking place has led to new ways of implementing legislative policies that may find their most successful prototype in the 2030 Agenda. See G. Fidone, 'Il Green Public Procurement nel diritto comunitario con particolare

Access to direct and shared use of energy for all individuals can thus be realized through negotiation structures that best suit the interests of the parties. The function of these contracts plays a crucial role in their identification and qualification.

A contract is outlined where its content is an expression of the autonomy of the parties, with its legal qualification linked to its intended function and characterized by solidarity purposes. The contract is increasingly characterized by greater complexity and includes elements that go beyond the traditional ones. In fact, new forms of private autonomy are being defined in the context of regulation shaped by a plurality of sources.

Private autonomy takes on a new and complex dimension that does not merely involve the participation of all contracting parties in drafting an agreement aligned with their interests. Instead, increased sharing and cooperation, particularly in access to energy, require contractual agreements that, through an articulated connection of regulatory measures,[46] take into account subjective, environmental, and societal aspects and that can redefine, in connection with market changes, the effects involving the interests of the parties, including those of future generations.[47] The heteronomy of contract regulation does not go as far as to undermine negotiating autonomy or to negate it.

More simply, it serves as the means for the formation of negotiation regulation and makes it a vehicle for upholding values such as safety, human rights and environmental protection, as provided for in Art 41, para 2 of the Italian Constitution.[48]

The plurality of regulations and laws that shape and supplement the content of the contract affect the interest of the parties and transform the so-called typical negotiating models. The contract no longer has 'static' regulation but stands as a renewed synthesis of

riferimento alle nuove direttive appalti e concessioni', in G.F. Cartei and M. Ricchi eds, *Finanza di progetto e partenariato pubblico-privato. Temi europei, istituti nazionali e operatività* (Napoli: Edizioni Scientifiche Italiane, 2015), 223; C. Vivani, 'Appalti sostenibili, green public procurement e socially responsible public procurement' *Urbanistica e appalti*, 993 (2016).

[46] P.G. Biandrino, 'Tipi contrattuali e vincoli regolatori nel settore dell'energia' *rivistaregolazionemercati.it*, 145 (2015); G. De Nova, *Il contratto alieno* (Torino: Giappichelli, 2010), 2.

[47] See R. Senigallia, 'Per un'«ermeneutica del concetto di causa»: solidarietà «orizzontale» e contratto' *Juscivile*, 507 (2016); N. Lipari, '"Spirito di liberalità" e "spirito di solidarietà"' *Rivista trimestrale di diritto e procedura civile*, 9 (1997).

[48] On this point, see S. Zuccarino, *Il contratto «conformato» quale statuto normativo del mercato energetico* (Napoli: Edizioni Scientifiche Italiane, 2021), 186.

self-regulation and hetero-regulation[49] that must meet the criteria of reasonableness, proportionality, and subsidiarity,[50] and aspects of solidarity and environmental sustainability.[51] Such bargaining is geared towards regulating the market and delineating the behaviour of the parties.

As a result, negotiating autonomy[52] takes on a role aimed at satisfying a plurality of interests and also goes beyond the principle

[49] M. Angelone, *Autorità indipendenti e eteroregolamentazione del contratto* (Napoli: Edizioni Scientifiche Italiane, 2012), 117; P. Perlingieri, 'Economia e diritto', in Id, *Il diritto dei contratti fra persona e mercato. Problemi del diritto civile* (Napoli: Edizioni Scientifiche Italiane, 2003), 271: S. Polidori, 'Regole dei rapporti e regole del mercato: fra disomogeneità del quadro normativo e responsabilità dell'interprete', in P. D'Addino Serravalle ed, *Mercato ed etica* (Napoli: Edizioni Scientifiche Italiane, 2009), 354.

[50] G. Perlingieri, *Profili applicativi della ragionevolezza nel diritto civile* (Napoli: Edizioni Scientifiche Italiane, 2015), 4; Id, 'Sul criterio di ragionevolezza', in C. Perlingieri and L. Ruggeri eds, *L'incidenza della dottrina sulla giurisprudenza nel diritto dei contratti* (Napoli: Edizioni Scientifiche Italiane, 2016), 30; G. Villanacci, *La ragionevolezza nella proporzionalità del diritto* (Torino: Giappichelli, 2020) 67; P. Perlingieri, 'Produzione, beni e benessere', in *Benessere e regole dei rapporti civili* (Napoli: Edizioni Scientifiche Italiane, 2015), 518; Id, 'Equilibrio normativo e principio di proporzionalità nei contratti' *Rassegna di diritto civile*, 334 (2001).

[51] Corte costituzionale 20 July 2012 no 200, *Giurisprudenza italiana*, 673 (2013), where it points out that 'the quality of regulation conditions the actions of market operators'. It follows that an unjustifiably intrusive 'regulation' of economic activities, which is therefore unnecessary and disproportionate with respect to the protection of constitutionally protected goods, generates unnecessary obstacles to economic dynamics to the detriment of the interests of economic operators, consumers, and the workers themselves, and therefore ultimately damages social utility itself. On this point, see M. Imbrenda, 'Integrazione e conformazione del contratto: il ruolo delle autorità indipendenti', in E. Caterini et al eds, *Scritti in onore di Vito Rizzo. Persona, mercato, contratto e rapporti di consumo* (Napoli: Edizioni Scientifiche Italiane, 2017), 918.

[52] See, F. Criscuolo, *Autonomia negoziale ed autonomia contrattuale* (Napoli: Edizioni Scientifiche Italiane, 2008), 43; T. Sica, 'Autorità indipendenti e autonomia privata: le soluzioni del Consiglio di Stato' *Giurisprudenza italiana*, 2501 (2019); M. Imbrenda, 'Asimmetria di posizioni contrattuali, contratto predisposto e ruolo delle Authorities', in P. Sirena et al eds, *I poteri privati e il diritto della regolazione. A quarant'anni da «Le Autorità private» di C.M. Bianca* (Roma; Roma Trepress, 2018), 485; A. Nervi, 'Il contratto come strumento di conformazione dell'assetto di mercato' *Europa e diritto privato*, 509 (2018); E. Capobianco, *Lezioni sul contratto* (Torino: Giappichelli, 2014), 16; M.R. Maugeri, 'Autorità indipendenti e contratto', in E. Del Prato ed, *Scritti in onore di Antonino Cataudella* (Napoli: Edizioni Scientifiche Italiane, 2013), II, 1314; R. Perez, 'Autorità indipendenti e tutela dei diritti' *Rivista trimestrale di diritto pubblico* 1, 118, 115-147 (1996); G. Bellantuono, 'Diritto europeo dei contratti e regolazione delle public utilities', in F. Cafaggi ed, *Quale armonizzazione per il diritto europeo dei contratti?* (Padova: Cedam, 2003), 60; M. Grondona, 'Auto-integrazione ed etero-integrazione: che cosa resta della distinzione?', in F. Volpe ed, *Correzione e integrazione del contratto* (Bologna: Zanichelli, 2016), 258; G. Napolitano and A. Zoppini, 'La regolazione indipendente dei servizi pubblici e la garanzia dei privati', in G. Gitti, *L'autonomia privata e le autorità indipendenti* (Bologna: Il Mulino, 2006), 126; F. Longo, 'Ragioni e modalità dell'istituzione delle Autorità indipendenti', in S. Cassese and C. Franchini eds, *I garanti delle regole* (Bologna: Il Mulino, 1996), 14.

of the relativity of the effects of the contract, which can no longer be configured as an exclusive instrument for regulating the individual interests of the parties. After all, it is on the basis of the principle of subsidiarity under Art 118, para 4 of the Constitution that everyone can take negotiating initiatives to regulate general interests.[53]

Negotiated agreements thus become an instrument of discipline between the parties and the market, reflecting the bargaining process in contemporary society, which is increasingly permeated by sustainability and the protection of human rights.[54]

[53] See P. Perlingieri, *Il diritto civile nella legalità costituzionale secondo il sistema italo-europeo delle fonti. Metodi e tecniche* (Napoli: Edizioni Scientifiche Italiane, 2020), I, 135. Id, '«Controllo» e «conformazione» degli atti di autonomia negoziale' *Rassegna di diritto civile*, 215 (2017); G. Carapezza Figlia, 'I rapporti di utenza dei servizi pubblici tra autonomia negoziale e sussidiarietà orizzontale' *Rassegna di diritto civile*, 462 (2017); P. Perlingieri and P. Femia, *Nozioni introduttive e princípi fondamentali del diritto civile* (Napoli: Edizioni Scientifiche Italiane, 2004), 70; P. Femia, *Interessi e conflitti*, n 39 above, 134; A. Federico, *Autonomia negoziale e discrezionalità amministrativa. Gli «accordi» tra privati e pubbliche amministrazioni* (Napoli: Edizioni Scientifiche Italiane, 1999), 39; G. Oppo, 'Diritto privato e interessi pubblici' *Rivista di diritto civile*, 25 (1994); L. Ruggeri, n 45 above, 6-7.

[54] See P. Perlingieri, *Il diritto civile nella legalità costituzionale secondo il sistema italo-europeo delle fonti* (Napoli: Edizioni Scientifiche Italiane, 2020), IV, 196. On this point, see C. Solinas, 'Autonomia privata ed eteronomia nel servizio di fornitura di energia elettrica. Forme e strumenti della regolazione del mercato' *Contratto e impr*esa, 1369 (2010); A. Federico, 'Integrazione del contratto e poteri regolatori delle Autorità Amministrative Indipendenti. Il ruolo dell'Autorità Nazionale Anticorruzione nella costruzione del regolamento contrattuale' *Rassegna di diritto civile*, 824 (2017); E. Caterini, *Sostenibilità e ordinamento civile. Per una riproposizione della questione sociale* (Napoli: Edizioni Scientifiche Italiane, 2018), 99; C. Prussiani, *La conformazione contrattuale nei settori regolati dalle autorità amministrative indipendenti. Un'ipotesi di studio* (Milano: Giuffré, 2022), 57.

The Italian-European Ecological Dimension as a Guiding Criterion for All Human Activity. Cues in Pharmaceutical Activity

Sara Zuccarino*

Abstract

The essay analyses the ecological inspiration behind Italian-European legislation. Environmental protection is a principle that shapes every human activity with the aim of enhancing the welfare levels of society. This reversal of values associated with this approach is examined with particular reference to the pharmaceutical sector.

Keywords

Sustainable Transition, Constitutional Biocentrism, Personalism, Green Pharmaceutical Strategy, Environmental Risk Assessment, Pharmaceutical Consumer.

I. Introduction

The ecological emergency – the mantra of our times – makes it imperative to reinterpret legal and economic paradigms in light of sustainable development,[1] ie, development that is capable of balancing, in a harmonious manner, the ecosystem with economic rationality.[2] The effective realization of our scale of values, inspired

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[1] The notion of sustainable development dates back 40 years. It is contained in the Brundtland Report of the World Commission on Environment and Development (WCED) 'Our Common Future', which defines 'sustainable': 'development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs'. The World Commission on Environment and Development, *Our Common Future* (Oxford: Oxford University Press, 1987), 16. See, M. Redclift, 'Sustainable development (1987-2005): An Oxymoron Comes of Age' *Sustainable Development*, 212-227 (2005).

[2] European Parliament and Council Decision 1386/2013/EU of 20 November 2013 on a General Union Environment Action Programme to 2020 (7th EAP) 'Living well, within the limits of our planet' [2013] OJ L354/171. See B. Sjåfjell and C. Bruner eds, 'Corporation and Sustainability', in *Cambridge Handbook of Corporate Law, Corporate Governance and Sustainability* (Cambridge: Cambridge University Press, 2019), chapter 1; L. Strine, 'Toward Fair and Sustainable Capitalism' *Harvard John M. Olin Discussion Paper no 1018*, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=24361924 (last visited 23 September 2023).

by personalism and solidarism, presupposes an 'integral ecological dimension', ie, an inseparable symbiosis between environmental and human ecology.[3] In this perspective, sustainability must be reconstructed as a cardinal principle of our legal system and, therefore, as a component of public order.[4] It becomes a hermeneutic canon both for both the legitimacy (constitutional, European, and international) of regulatory acts and the worthiness[5] of legal relations. In particular, the principle *de quo* – in conforming, planning and controlling 'every legally relevant human activity' – ensures that any form of autonomy (legislative, administrative, and private) is directed toward the protection of the environment, also 'to guarantee that the satisfaction of the needs of present generations cannot compromise the quality of life and the possibility of future generations'.[6] In the functional dimension envisaged, the *jus-generative* force of the principle of sustainability emerges, insofar as it is capable of regulating concrete events, appropriately balanced with other conflicting principles and rights.[7]

[3] F. Parente, *Territorio ed eco-diritto: dall'ecologia ambientale all'ecologia umana* (Napoli: Edizioni Scientifiche Italiane, 2022), 9, 47; D.R. Boyd, 'Constitutions, Human Rights and the Environment: National Approaches', in *Research Handbook on Human Rights and the Environment* (Cheltenham-Northampton: Edward Elgar Publishing, 2015), 170-199.

[4] It is worth marking the unity of the concept of public order based on the protection of the person and the fallacy of the expression 'ecological public order'. On this point, see P. Perlingieri, 'Persona, ambiente e sviluppo', in M. Pennasilico ed, *Contratto e ambiente. L'analisi ecologica del diritto contrattuale* (Napoli: Edizioni Scientifiche Italiane, 2016), 321-331. In general, on public order as a historical concept, influenced by the social and cultural evolution of a country, G. Perlingieri, 'In tema di ordine pubblico' *Rassegna di diritto civile*, 1382, 1384-1385 (2021). The author points out that public order is a dynamic concept that is an expression of a country's values. 'These have a hierarchy, they are not irreconcilable monads and, once positioned in principles (and rules), far from being absolute, eternal, transcendent or metaphysical, they are, like every norm, an affair of men and, as such, historical and relative, susceptible to being balanced and balanced in such a way as to support instances of openness to globalisation and, at the same time, preserve cultural and constitutional identity'. The English translation of the original text is provided by the author of this essay.

[5] A. Lasso, 'Sostenibilità sociale e diritti fondamentali della persona', in D.A. Benitez and C. Fava eds, *Sostenibilità: sfida o presupposto?* (Padova: Cedam, 2019), 92, 113.

[6] The words in inverted commas refer to Art 3 *quater*, decreto legislativo 3 April 2006 no 152, 'Environment Code'. The concepts expressed in the text were inspired by the pages of P. Perlingieri, 'Produzione, beni e benessere', in *Benessere e regole dei rapporti civili. Lo sviluppo oltre la crisi. Atti di 9° Convegno Nazionale SISDiC, 8-9-10 maggio* (Napoli: Edizioni Scientifiche Italiane, 2015), 510-511.

[7] N. Lipari, *Vivere il Diritto* (Napoli: Edizioni Scientifiche Italiane, 2023), 67. The author points out that: 'In the season of postmodernism, which is connoted by a non-homologous multiplicity, the rule enters into dialectics with chance and from this it often

It is worth highlighting that the environmental matter, which is the specific focus of this discussion, determines the abandonment of top-down laws, characterised by rigid and detailed regulations, which are, among other things, prone to rapid obsolescence. Instead, we are witnessing the emergence of a right *ex parte societatis* that is based on principles that, albeit of different rank and origin, are destined to merge – in an open legal system such as the Italian one – into constitutional legality.[8]

There is no doubt that legislation by principles, accompanied by an axiological interpretation, can further the realization of the goals set by the sustainable transition.[9]

The logical corollary of this statement is the abandonment of a theory of interpretation, *sub specie aeternitatis*, based on the mechanism of punctilious and specific regulation and the logical scheme of syllogistic subsumption. Legal interpretation becomes primarily systematic and axiological, ie, referring to the values of the system.[10] In this context, the jurist's task is to (re)read the rules in light of constitutional and European principles to identify the regulation of the concrete case that is as close as possible to the overall logic of the legal system in force.

In a nutshell, in the geological era of the Anthropocene[11], the polymorphic[12] principle of sustainability operates as an organizing

draws the guiding criteria for its own formulation'. The English translation of the original text is provided by the author of this essay.

[8] ibid 121-137.

[9] E. Caterini, *Sostenibilità e ordinamento civile* (Napoli: Edizioni Scientifiche Italiane, 2018), 91; M. Pennasilico, 'Sviluppo sostenibile, legalità costituzionale e analisi "ecologica" del contratto' *Persona e mercato*, 37 (2015); J. Ebbesson and E. Hey, *The Cambridge Handbook of Sustainable Development Goals and International Law* (Cambridge: Cambridge University Press, 2022), 1-50.

[10] P. Perlingieri, n 6 above, 512-516.

[11] This concept is underlined by M. Lim, *Charting Environmental Law Futures in the Anthropocene* (Cham: Springer, 2019), 20; C.P. Krieg and P. Minoia, 'Anthropocene Conjunctures', in C.P Krieg and R. Toivanen eds, *Situating Sustainability: A Handbook of Contexts and Concepts* (Helsinki: Helsinki University Press, 2021), 39- 50; M. Harm Benson and R. Kundis Craig, *The End of Sustainability: Resilience and the Future of Environmental Governance in the Anthropocene* (Kansas: University Press of Kansas, 2017), 1-21.

[12] On the configuration of sustainability from an environmental, economic, and social perspective, see M. Pennasilico, 'La "sostenibilità ambientale" nella dimensione civil-costituzionale: verso un diritto dello "sviluppo umano ed ecologico"' *Rivista quadrimestrale di diritto dell'ambiente*, 1, 7-8 (2020); Id, 'L'insegnamento del diritto privato tra modello tradizionale e problematiche attuali (Manifesto per un diritto privato ecosostenibile)' *Rassegna di diritto civile*, 641, 661 (2019).

criterion for the thinking and functioning of social and economic systems to ensure 'global well-being'.[13]

Starting from these premises, this study focuses on the theme of environmental sustainability with particular attention to the pharmaceutical sector. It aims to demonstrate that environmental considerations shape the discipline and direct production processes so that they realize, in compliance with the so-called 'planetary limits',[14] the axiology of the legal system.

II. The Era of 'Constitutional Biocentrism'

The environmental dimension finds its regulatory entanglements in the complex[15] and unitary Italian-European source system.[16] This framework underscores the tendency of legislators, both domestic and European, to orient their activities toward ecological considerations.[17] While it is beyond the scope of this work to catalogue the extensive legislation on the subject, it is worth dwelling on the norms of the Italian Constitution and the

[13] E. Caterini, 'Iniziativa economica privata e «crisi ecologica». Interpretazione anagogica e positivismo', in G. Perlingieri and E. Giorgini eds, *Diritto europeo e legalità costituzionale a trent'anni dal volume di Pietro Perlingieri* (Napoli: Edizioni Scientifiche Italiane, 2024), 290; P. Perlingieri, n 6 above, 510-511; P. Jain and Pra. Jain, 'Are the Sustainable Development Goals really sustainable? A Policy Perspective', in *Sustainable Development* (New York: John Wiley & Sons Ltd, 2020), 28, 1642-1651.

[14] F. Parente, n 3 above, 15. On the concept of 'planetary boundaries' see, most recently, European Parliament and Council Decision 2022/591/EU of 6 April 2022, on a General Union Environment Action Programme to 2030 (8th EAP). This document, in prescribing the priorities of European policy, states in Art 2: 'The 8th EAP shall have the long-term priority objective that by 2050 at the latest, people live well, within the planetary boundaries in a well-being economy where nothing is wasted, growth is regenerative, climate neutrality in the Union has been achieved and inequalities have been significantly reduced. A healthy environment underpins the well-being of all people and is an environment in which biodiversity is conserved, ecosystems thrive, and nature is protected and restored, leading to increased resilience to climate change, weather- and climate-related disasters and other environmental risks. The Union sets the pace for ensuring the prosperity of present and future generations globally, guided by intergenerational responsibility', European Parliament and Council Decision 2022/591/EU of 6 April 2022, on a General Union Environment Action Programme to 2030 [2022] OJ L 114/22.

[15] P. Perlingieri, *Il diritto civile nella legalità costituzionale secondo il sistema italo-europeo delle fonti, Fonti e interpretazione* (Napoli: Edizioni Scientifiche Italiane, 4th ed, 2020), II, 59-69.

[16] P. Perlingieri, 'I valori e il sistema ordinamentale «aperto»' *Rassegna di diritto civile*, 1-9 (2014); Id, 'Interpretazione e controllo di conformità' *Rassegna di diritto civile*, 593, 595 (2018).

[17] A.P. Singh, 'Towards the environmental state: revelations from a design-oriented enquiry of environmental constitutionalism' 25 *Environmental Law Review*, 120-134 (2023).

European Treaties. These documents explicitly recognize the environmental interest as a necessary evaluative factor for both public authorities and private activities.

The principle of sustainable development appears to be deeply rooted in our constitutional system. It is not only explicitly provided for by both supranational and national provisions but it is also immanent and closely connected to the value of the individual and, therefore, to other principles of constitutional significance.[18] There is no doubt, for instance, that 'ecological necessity' reinforces the set of duties of solidarity prescribed by Art 2 of the Constitution.[19] As will be further discussed in the following pages, fulfilling the duty of *environmental solidarity* is the basis for the effective realization of the constitutional programme aimed at the development of the individual.[20] The evolutionary interpretation[21] of Art 2 of the Constitution, for example, allows for the extension of the protection of inviolable human rights to include the right of future generations to live in a healthy environment. Additionally, it establishes the foundation for intergenerational responsibility among human beings.[22] In this trajectory, legal reasoning opens up to an intertemporal dimension, capable of ensuring, at the moment of application, the complementarity between the inviolable rights of future generations and the non-derogable duties of present generations.

[18] P. Perlingieri, *Il diritto civile nella legalità costituzionale secondo il sistema italo-europeo delle fonti, Situazioni soggettive* (Napoli: Edizioni Scientifiche Italiane, 4th ed, 2020), III, 83; Id, 'Principio personalista, dignità umana e rapporti civili' *Annali della Società italiana degli Studiosi del Diritto Civile*, 1-5 (2020).

[19] R.L. Lorenzetti and P. Lorenzetti, *Diritto ambientale* (Napoli: Edizioni Scientifiche Italiane, 2020), 19. On the intergenerational relationship, interesting insights are drawn from the ruling of the Bundesverfassungsgericht, Order of 24 March 2021, 1 BvR 2656/18. The decision affirms the constitutional illegitimacy of the Federal Climate Protection Act insofar as it does not sufficiently protect people from future reductions in their rights that may become necessary as climate change progresses. More precisely, the federal law, by postponing most of the urgent and relevant measures beyond 2030, risks disproportionately shifting the burden of reducing greenhouse gas emissions onto future generations, leading to disproportionate losses of freedom between generations.

[20] B. Borrillo, 'Spunti in tema di sostenibilità, categorie civilistiche e rivoluzione digitale' *Tecnologie e diritti*, 13, 19 (2024).

[21] Interpretation must adapt to the 'dynamism of social reality' since 'even the provision that remains intact over time changes its meanings due to normative and factual changes (economic, social, cultural circumstances)'. Thus P. Perlingieri, n 14 above, 378.

[22] M. Pennasilico, n 11 above, 22.

The environmental dimension of our legal system was explicitly affirmed by the constitutional reform of 2022[23] which amended Arts 9 and 41. More precisely, Art 9, para 3, prescribes, among the fundamental principles, that of the 'utilization of the environment, biodiversity and ecosystems, also in the interest of future generations'.[24] In other words, the legal system is committed to protecting the environment in its various biological manifestations. There is, in fact, an awareness of the close scientific and functional interconnection between the triad 'environment, biodiversity, and ecosystems'.[25]

Art 41 of the Constitution states that: '1. Private economic initiative is free. It may not be carried out in conflict with social utility or in such a way as to be harmful to health, the environment, security, liberty or human dignity. 3. The law determines the appropriate programmes and controls so that public and private economic activity may be directed and coordinated for social and environmental purposes'. The introduction of the word 'environment' in the text allows social utility to be interpreted from an ecological perspective. Thus, the monitoring of a company's environmental impact cannot be considered an exceptional and external limitation, but rather a 'consubstantial' way of being. Ecological value shapes every economic activity.[26] Accordingly, economic activities must not be carried out in such a way as to harm health, the environment, safety, freedom and human dignity. Besides, they must pursue environmental value because this is what is required to operate without conflict with social-ecological utility.

The reform of Arts 9 and 41, while making explicit what was already implicit in the previous regulatory framework, intended to emphasize the impact of environmental protection on legal relations and its close correlation with the human person.[27] Indeed, one of the most relevant aspects of the full development of the

[23] Legge costituzionale 11 February 2022 no 1; on the advisability or otherwise on the constitutional reform, see R. Landi, *Risanamento ambientale e vicende della proprietà* (Napoli: Edizioni Scientifiche Italiane, 2022), 51.

[24] M. Cecchetti, 'La revisione degli articoli 9 e 41 della Costituzione e il valore costituzionale dell'ambiente: tra rischi scongiurati, qualche virtuosità (anche innovativa) e molte lacune', in Id, L. Ronchetti and E. Bruti Liberati eds, *Tutela dell'ambiente: diritti e politiche* (Napoli: Edizioni Scientifiche Italiane, 2021), 41.

[25] The Constitutional Court had emphasised, even before the reform, the reconstruction of the environment as a unitary albeit complex 'good'. See, *ex multis,* Corte costituzionale 7 November 2007 no 367.

[26] L. Ruggeri, 'Ambiente e tecnologie: nuove sfide per la tutela della persona' *ambientediritto.it*, 8 (2023).

[27] On the constitutional reform discussed in the text, see E. Jona, 'La libertà di iniziativa economica e la protezione dell'ambiente e della salute' *federalismi.it*, 2 (2023).

human person is, pursuant to Art 4 of the Constitution, 'the material and spiritual progress of society', which cannot be achieved in an unhealthy habitat. This perspective has always guided the jurisprudence of the Italian Constitutional Court which, on several occasions prior to the 2022 reform, qualified the environment as a fundamental right of the human person and a founding element of the entire *societas*.[28]

III. The European Regulatory Framework

The axiological pre-eminence accorded to the person and their effective protection also inspired the European legislator.[29] This concept is well articulated by the President of the European Commission, Ursula Von der Leyen, who, in presenting the European Green Deal, specified that the Union's policy aims at 'reconciling the economy with our planet'.[30] The objective is to balance the needs of technological and economic development, both unstoppable and uncontainable, with respect for the value of the human person in their existential-environmental context.[31] This

[28] Since the 1980s, through an evolutionary interpretation of Arts 2, 9 and 32 of the Constitution, the Court has configured the environment as a 'constitutional value'. *Ex multis*, Corte costituzionale 30 December 1987 no 641; 16 March 1990 no 127; 29 May 2005 no 62; 7 October 2016 no 216. In these pronouncements, the Court defines environmental protection as a value that is configured as a synthesis, in a global or integrated vision, of a plurality of aspects and a series of other values that pertain not only to merely naturalistic or health interests but also to cultural, educational, recreational and participatory interests, all characterized by the essential importance they hold for the life of the community.

[29] T. Etty and H. Somsen, *The Yearbook of European Environmental Law* (Oxford: Oxford University Press, 2008), VIII; PM. Hedemann-Robinson, *Enforcement of European Union Environmental Law. Legal Issues and Challenges* (Abingdon: Routledge, 2nd ed, 2015), 1-20. For further remarks in this direction see also: S. Bookman, 'Demystifying environmental constitutionalism' 54 *Environmental Law*, 1-77 (2024); J.P. Balkenende and G. Buijs, *Capitalism Reconnected: Toward a Sustainable, Inclusive and Innovative Market Economy in Europe* (Amsterdam: University Press, 2024), 195-224.

[30] European Commission, Communication to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of Regions, of 11 December 2019 on 'The European Green Deal' COM(2019) 640.

[31] On this point, interesting insights are drawn from the jurisprudential approach of the Italian Constitutional Court and the Court of Justice on the well-known *Ilva* case. Corte costituzionale 9 May 2013 no 85; Eur. Court H.R., *Cordella* v *Italy*, App no 54414, Judgment of 24 January 2019; *Ardimento et al* v *Italy*, App no 4642, Judgment of 5 May 2022. The aforementioned pronouncements make it clear that safeguarding the continuity of production in strategic sectors for the national economy does not mean undermining rights such as the protection of health and the environment. To avoid the 'exclusive' assertion of one right over others, it is necessary to proceed to a reasonable and

approach is grounded in primary sources. Pursuant to Arts 191-193 of the Treaty on the Functioning of the European Union (TFEU), the Union promotes a policy of 'preserving, protecting and improving the quality of the environment', 'protecting human health', 'prudent and rational utilization of natural resources', and 'promoting measures at international level to deal with regional or worldwide environmental problems, and in particular to combat climate change' (Art 191, para 1 TFEU).

In support of the approach described above, it is noted that the Treaty on European Union (TEU) includes among the objectives of EU policy, in compliance with internationally binding commitments,[32] the promotion of balanced and sustainable economic and social progress. To this end, Art 3, para 3, requires the Union to strive for sustainable development 'based on balanced economic growth [...], a highly competitive social market economy [...] and a high level of protection and improvement of the quality of the environment'.[33] Arts 11 TFEU[34] and 37 of the Charter of Fundamental Rights of the European Union[35] also point in this direction, reflecting Europe's commitment to 'requirements related to the protection of the environment'.

Starting from these normative premises, it is clear that sustainable development is placed at the centre of the EU's values

proportionate balancing of legal values. Thus P. Perlingieri, 'Dittatura del relativismo e 'Tirannia dei valori', in T.G. Tasso ed, *Fatto e diritto. L'ordinamento tra realtà e norma* (Napoli: Edizioni Scientifiche Italiane, 2012), 127-130; Id, *Il diritto civile nella legalità costituzionale secondo il sistema italo-europeo delle fonti. Attività e responsabilità* (Napoli: Edizioni Scientifiche Italiane, 4th ed, 2020), IV, 262. The author emphasises that, in our legal system, fundamental rights are in a relationship of mutual integration, and it is not possible to consider one prevailing, in an absolute sense, over the other. A different approach would entail the unlimited expansion of one of the rights, which would become a tyrant against the other constitutionally recognised and protected legal situations.

[32] It is not possible here to go over the extensive international legislation even in passing. However, it should be emphasized that openness on the part of the domestic and European systems is essential because solutions to the environmental problem must be thought of from a global perspective.

[33] For an analysis of the concept of social market economy closely related to sustainable development, please refer to S. Zuccarino, *Il contratto 'conformato' quale statuto normativo del mercato energetico* (Napoli: Edizioni Scientifiche Italiane, 2021), 42-60 and bibliography cited therein.

[34] This Article states that: 'Environmental protection requirements must be integrated into the definition and implementation of the Union's policies and activities, in particular with a view to promoting sustainable development', Consolidated version of the Treaty on the Functioning of the European Union [2016] OJ C202/53.

[35] In that standard we can read that: 'A high level of environmental protection and the improvement of the quality of the environment must be integrated into the policies of the Union and ensured in accordance with the principle of sustainable development', Charter of Fundamental Rights of the European Union [2012] OJ C326/17.

and constitutes the *humus* of a modern notion of public order to which the European policy and the entire legal system must conform.[36] In this context, in axiologically orienting the regulatory activity of the European Union, sustainable development becomes an evaluative parameter of the actions of public and private subjects.[37]

As evidenced by the regulatory analysis just conducted, sustainability is not a vague or abstract concept but rather one that expresses a high degree of normativity and significant axiological power.[38]

The European environmental principles – not only that of sustainable development but also those indicated in Art 191, para 2 TFEU[39] – are integrated into our legal system which, pursuant to Arts 11 and 117, para 1 of the Constitution, is open to the 'constraints deriving from *the* community system and international obligations'. The aforementioned provisions allow supranational principles to enter our legal system, making them directly applicable norms that influence both public authority and the fabric of private autonomy, in a manner consistent with the systematic and axiological method.[40]

[36] Thus, P. Perlingieri, 'Relazione conclusiva', in P. D'Addino ed, *Mercato ed etica* (Napoli: Edizioni Scientifiche Italiane, 2009), 328; Id, 'Diritto dei contratti e dei mercati' *Rassegna di diritto civile*, 878 (2011) who, in recalling Art 1, paras 3 and 4 of the Lisbon Treaty, points to the reversal of course made by the European Union, aimed at emphasizing the relevance of the market as an instrument for the settlement of different interests in a solidaristic matrix.

[37] On this point, see R. Pepper and H. Hobbs, 'The Environment Is All Rights: Human Rights, Constitutional Rights and Environmental Rights' 44 *Melbourne University Law Review*, 634 (2020).

[38] On this point, see the pages of G. Perlingieri, '«Sostenibilità», ordinamento giuridico e «retorica dei diritti». A margine di un recente libro' *Foro napoletano*, 101 (2020); P. Perlingieri, n 4 above, 322, who points out that: '[w]hile the development of a country is not given by the GDP (according to an accountancy, economistic conception of social and human relations), but depends on the degree of realisation of the wellbeing and quality of life of human beings, development is sustainable when it guarantees the full and free development of the human person'.

[39] The quoted provision states that the Union's policy shall be based on 'the precautionary principle and the principle that preventive action should be taken, the principle that environmental damage should as a priority be rectified at source and the polluter should pay'. For a deeper analysis of the aforementioned principles, see M. Pennasilico, n 11 above, 15 and the bibliography cited therein.

[40] M. Pennasilico, n 4 above, 293, 294. For the sake of completeness, we cannot overlook the fact that part of the doctrine questions the preceptive aspect or direct applicability of environmental principles also to inter-private relations. There are those who maintain that the environmental principles produce generic obligations of conformation for the European institutions alone. It is excluded that they can be invoked as a direct and immediate source of enforceable rights *erga omnes*, or that obligations and burdens can derive from them for individual European citizens.

In other words, the European environmental principles become substantive legal norms that enrich and modernize the jurist's toolkit[41] and help him in his balancing act between economic efficiency, albeit fundamental, and respect for the human person.[42]

In conclusion, the environment emerges as an axiological element conforming to the dynamics of the market and juridicity to realize the principle of sustainable development, which serves as the paradigm of progress in post-modern society.[43]

IV. The Ecological Dimension from the Perspective of Personalism

Within the framework outlined in the preceding paragraphs, the doctrine that advocates for an interpretation of sustainable development, in a personalistic and solidaristic manner, ie, with respect for human rights, is commendable.[44] The pre-eminence of the personalist function over the mercantile and patrimonialist one is argued.[45] It is undeniable that the dignity of the person, as the

[41] P. Perlingieri, 'Scuole civilistiche e dibattito ideologico: introduzione allo studio del diritto privato in Italia', in Id, *Scuole, tendenze e metodi. Problemi del diritto civile* (Napoli: Edizioni Scientifiche Italiane, 1989), 75; Id, *Il diritto civile nella legalità costituzionale secondo il sistema italo-europeo delle fonti. Metodi e tecniche* (Napoli: Edizioni Scientifiche Italiane, 4th ed, 2020), I, 37.

[42] On the sources of European law, see N. Lipari, 'Il problema dell'effettività del diritto comunitario', in *Diritto comunitario e sistemi nazionali: pluralità delle fonti e unitarietà degli ordinamenti. Atti del 4° Convegno Nazionale SISDiC, 16, 17, 18 Aprile 2009* (Napoli: Edizioni Scientifiche Italiane, 2010), 633; P. Dell'Anno, 'Il ruolo dei principi del diritto ambientale europeo: norme di azione o di relazione?', in D. Amirante ed, *La forza normativa dei principi. Il contributo del diritto ambientale alla teoria generale* (Padova: Cedam, 2006), 117, 132; P. Perlingieri, n 6 above, 518; A. Zoppini, 'Il diritto privato e le "libertà fondamentali" dell'Unione europea. (Principi e problemi della *Drittwirkung* nel mercato unico)', in F. Mezzanotte ed, *Le "libertà fondamentali" dell'Unione europea e il diritto privato* (Rome: Roma-Tre Press, 2016). The author focuses on the direct application of the Treaty rules to the regulation of private relationships.

[43] K. Hawkins, *Environmental and Enforcement: Regulation and Social Definition of Pollution* (Oxford: Oxford University Press, 1984). On the relevance of environmental sustainability as a value of the Italian-European legal system, the study by M. Pennasilico, n 11 above, 17, is indispensable. The author, in proceeding to a reading of current constitutional legality in light of the relevance of sustainable development, promotes an ecological turnaround.

[44] P. Perlingieri, *Il diritto civile*, n 17 above, 77.

[45] G. Perlingieri, n 35 above, 102. On this point see also F. Bertelli, *Profili civilistici del "Dieselgate"* (Napoli: Edizioni Scientifiche Italiane, 2021), 176.

cornerstone of human rights and personalism, fundamentally shapes the concept of sustainable development.[46]

In light of this approach, it can be argued that the principle of sustainability, precisely because it is fundamental to the individual, constitutes a core element of our constitutional legality. It should be considered, on the one hand, as a rule directly applicable to inter-individual relations, regardless of the existence of a related subjective right and, on the other, as a priority consideration in the balancing of principles.[47] Only in this way can a reasonable and proportionate weighing of all the instances involved in the concrete case be achieved.

In other words, while the environment must be balanced with other interests, it is also true that its priority is underscored by the recognition that the ecological crisis has reached such a level where it would be unreasonable to treat ecological value as secondary. In fact, if the environment constitutes the biological foundation for the existence of every form of life, including human life, it must be regarded as an inviolable value and, as such, exempt from any compromise.[48] In short, it is the very survival of humanity that requires ecological concerns to be placed at the centre of the social, economic, political, cultural, and spiritual dimensions of human life.[49] Consequently, the relationship between the economy, nature, and man must be understood in a circular manner, with its beginning and its end centred on the person, the ecosystem's purpose and value.[50]

[46] P. Perlingieri, n 6 above, 510; M. Francesca, 'Acqua bene comune: la difficile convivenza di teorie e fatti' *Rassegna di diritto civile*, 555, 558 (2022). In this sense, see the economic analysis carried out by A. Sen, *Lo sviluppo è libertà. Perché non c'è crescita senza democrazia*, translated by G. Rigamonti (Milano: Mondadori, 2000), *passim*. The author argues the need to decouple the economic evaluation of development from GDP in order to focus on a development capable of guaranteeing the free and full development of the person; a development that is based on the elimination of illiberal factors, such as hunger, poverty, illiteracy, lack of health care and environmental protection.

[47] M. Pennasilico, 'Ambiente e iniziativa economica: quale bilanciamento?' *Le nuove leggi civili commentate*, 48, 51 (2024).

[48] M. Pennasilico, 'Sviluppo sostenibile e solidarietà ambientale', in Id ed, *Manuale di diritto civile dell'ambiente* (Napoli: Edizioni Scientifiche Italiane, 2014), 42. The author criticizes the Constitutional Court's sentence no 85 of 9 May 2013 on the *Ilva* case. The Strasbourg Court also intervened on this point, condemning the Italian State, pursuant to Art 8 of the European Convention on Human Rights, for failing to protect the life and health of the applicants and their families (n 28 above). The European Court of Human Rights was also, in the same vein, condemning the Italian Republic for failing to respect and adjust the air pollution values in some areas of the country as soon as possible (Case C-644/18 *European Commission* v *Italian Republic*, Judgment of 10 November 2020.

[49] E. Caterini, n 12 above, 283; M. Pennasilico, n 45 above, 49.

[50] E. Caterini, n 12 above, 286.

V. The Environmental Paradigm as the Key to a 'Green' Pharmaceutical Strategy

The Italian-European environmental principles resonate strongly within the pharmaceutical sector which is well known for its significant social and environmental impact.[51] The research and production process of a drug, in fact, requires substantial resources (principally energy and water) and generates, in turn, large quantities of waste that need careful management in order not to compromise the very health that these products are supposed to improve. In 2020, with an incomprehensible and unforgivable delay, the EU defined its pharmaceutical strategy,[52] aiming to balance the competitiveness and innovation capacity of this strategic sector with its environmental and social sustainability.[53] The reform under consideration confirms the need to resize an economistic approach that traditionally characterizes production activities, promoting instead a perspective that respects both individuals and their *habitat*, which, as previously stated, constitutes the foundation of Italian-European constitutionalism.[54]

The goal is ambitious, aiming to overhaul the processes and methods of medicine production, distribution, usage, and disposal, aligning them with the principles of the circular economy. This includes adapting to scientific and technological changes, promoting the role of the responsible consumer, and ensuring proper disposal practices. This reflects a gradual shift from a traditional economy to a green-economy and blue-economy that commits all companies to preserving the environment.

[51] The concept is clearly illustrated by S. Walter and K. Mitkidis, 'The Risk Assessment of Pharmaceuticals in the Environment' 9 *European Journal of Risk Regulation*, 527-547 (2018); E. Cavallin, 'Preventing Pandemics by Building Bridges in EU Policy and Law' 30 *European Energy and Environmental Law Review*, 162-194 (2021).

[52] European Commission, Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, 'Pharmaceutical Strategy for Europe' COM(2020) 761 final.

[53] J. Drexl and N. Lee eds, *Pharmaceutical Innovation, Competition and Patent Lae. A Trilateral Perspective* (Cheltenham-Northampton: Edward Elgar Publishing, 2013); T.K. Hervey and J.V. Mchale, *European Union Health Law. Themes and Implications* (Cambridge: Cambridge University Press, 2015); P. Figueroa and A. Guerrero eds, *EU Law of Competition and Trade in the Pharmaceutical Sector* (Cheltenham-Northampton: Edward Elgar Publishing, 2019); D.W. Hull and M.J. Clancy, 'The Application of EU Competition Law in the Pharmaceutical Sector' *Journal of European Competition Law & Practice*, 646-659 (2019).

[54] P. Perlingieri, *La personalità umana nell'ordinamento giuridico* (Napoli-Camerino: Edizioni Scientifiche Italiane, 1972), 417; Id, 'Principio personalista, dignità umana e rapporti civili' *Annali della Società italiana degli Studiosi del Diritto Civile*, 1-5 (2020).

The path begun in 2020 culminated in 2023 with the proposal for a directive on a Union code relating to medicinal products for human use, COM(2023) 192,[55] and a regulation laying down Union procedures for the authorization and supervision of medicinal products for human use and defining the rules governing the European Medicines Agency (EMA), COM(2023) 193.[56] In particular, it is intended to create, also in the light of the principle of subsidiarity,[57] a shared regulation of pharmaceuticals that upholds ecological values. Certainly, the answer to a global issue, such as the environment, cannot be delegated to autonomous and varied choices of sovereign entities. Such an approach would only increase the fragmentation of legal regulations, undermining regulatory certainty and a level playing field in competition between economic operators within the European market.

The review of the pharmaceutical activity with a focus on environmental and ecosystem protection confirms the EU's objective to carve out a role for itself as a world leader in sustainability, in light of Art 3, para 5 TEU in which we can read that: 'In its relations with the wider world, the Union shall uphold and promote its values and interests [...]. It shall contribute [...] to the sustainable development of the Earth'. In pursuing these aims, the European institutions shall, with due regard for the principles of equality and solidarity, work out multilateral solutions to 'foster the sustainable development of developing countries in economic, social and environmental terms, with the primary aim of eradicating poverty' (Art 21, para 2, letter d) and 'preserve and improve the quality of the environment and the sustainable

[55] Proposal for a Directive of the European Parliament and of the Council on the Union code relating to medicinal products for human use, and repealing Directive 2001/83/EC and Directive 2009/35/EC.

[56] Proposal for a Regulation of the European Parliament and of the Council laying down Union procedures for the authorization and supervision of medicinal products for human use and establishing rules governing the European Medicines Agency, amending Regulation (EC) No 1394/2007 and Regulation (EU) No 536/2014 and repealing Regulation (EC) No 726/2004, Regulation (EC) No 141/2000 and Regulation (EC) No 1901/2006.

[57] Art 5, para 3 TEU stipulates that: 'in areas which do not fall within its exclusive competence, the Union shall take action only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States, either at central level or at regional or local level, but can rather, by reason of the scale or effects of the proposed action, be better achieved at Union level'. On the principle of subsidiarity, see K.V. Kersbergen and B. Verbeek, 'The Politics of Subsidiarity in the European Union' *Journal of Common Market Studies*, 32, 215-236 (1994); N.M de Sadeleer, 'Principle of Subsidiarity and the EU Environmental Policy' *Journal of European Environmental & Planning Law*, 9, 63-70 (2012); A. Follesdal, 'The Principle of Subsidiarity as a Constitutional Principle in International Law' *Global Constitutionalism*, 2, 37-62 (2013).

management of the world's natural resources' (Art 21, para 2, letter f).[58] For example, the partnership between the European Union and the African Union aims to promote the creation of the African Medicines Agency and to obtain a harmonised regulatory system for the pharmaceutical industry.[59]

VI. Environmental Risk Assessment as a Prerequisite for Marketing Authorization of a Drug

Delving into specifics, the environmental perspective emerges is prominently reinforced by the strengthened Environmental Risk Assessment (ERA) requirements for the marketing authorization of a drug. The environmental risk assessment has been mandatory for the sector under review since 2005.[60] It is intended to detail the life cycle of the product. The company applying for authorization must, in fact, specify: the raw materials used and their degree of toxicity to plants, animals, and micro-organisms, considering the duration of their persistence in the environment; the packaging envisaged and the environmental impact of transport; and the disposal and/or recycling procedures. The applicant must also indicate any environmental risk mitigation measures taken.[61]

The intention of the European legislator is to establish the ERA as a prerequisite for obtaining marketing authorization for a particular medicinal product.[62] Arts 15, para 1, letter d) COM(2023)

[58] It is worth noting that the European pharmaceutical industry is almost entirely dependent on third countries. For example, India is a low-cost production destination for multinational pharmaceutical companies. This has led to an acceleration of pharmaceutical pollution in many Indian cities, damaging the water, food and health of local populations. 'Good Manufacturing Practices (GMP) require medicines to be of high quality [...] but do not oblige companies to put in place environmental safeguards during production, despite the well-known alarming risks' N. Ticchi, *Salute a tutti i costi* (Torino: Codice edizioni, 2022), 137-138. It is to be hoped that the pharmaceutical reform will have a positive impact on regulation in this area.

[59] www.ema.europa.eu/en/news/ema-support-establishment-african-medicines-agency.

[60] The requirement to submit the result of an environmental risk assessment of a medicinal product at the same time as the marketing authorization application was only introduced after the publication of the Environmental Risk Assessment (ERA) guidelines issued by the EMA in 2006 and last revised in 2018.

[61] Particular attention is also paid to those medicinal products with an antimicrobial mode of action. In this case, the environmental risk assessment also includes an evaluation of the risk of selection of antimicrobial resistance in the environment due to the manufacture, use and disposal of such a medicine.

[62] This is not the place to go over the pieces of the rules governing the centralised authorization procedure. On this point, see Chapter II 'General Provisions and Rules on

193 and 47, para 1, letter d) COM(2023) 192 provide, in fact, for the rejection of the ERA if 'the environmental risk assessment is incomplete or insufficiently documented by the applicant or the risks identified in the ERA have not been sufficiently addressed by the applicant'. Similarly, Art 195 COM(2023) 192 provides that 'The competent authorities of the Member States or, in the case of a centralised marketing authorization, the Commission may suspend, revoke or vary an authorization [...] where the authorization holder [...] has identified a serious risk to the environment or public health and has not sufficiently addressed that risk'.

To further strengthen environmental interests, in the phase following the granting of authorization, an obligation is imposed on the beneficiary to periodically monitor the impact of the authorized product, in order to assess the environmental risks also in consideration of the scientific and technological evolution/innovation that contributes significantly to the realisation of the principle of sustainability.[63] Arts 20, para 1, letter c)[64] and 24, para 1, letter f) COM(2023) 193, concerning the suspension of the placing on the market following the notification by the marketing authorization holder of a serious environmental risk, and Art 87 COM(2023) 192, point in this direction. This provision stipulates that the competent authority of the Member State may impose an obligation on the marketing authorization holder to conduct a post-authorization environmental risk assessment study, collect monitoring data, or provide information on use if there are concerns about risks to the environment or public health, including antimicrobial resistance, from an authorized medicinal product or a related active substance.

VII. Pharmaceutical Consumer Information as a Tool to Address the Ecological Challenge

Applications' and, in particular, the Section headed 'Application for Centralised Marketing Authorisation' COM(2023) 192.

[63] On this point, see Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, 'The European Green Deal' COM(2019) 640.

[64] The provision stipulates that following authorization, the holder of the authorization must 'further examine the risks to the environment or public health arising from the release of the medicinal product into the environment if new concerns arise in relation to the authorised medicinal product or other medicinal products containing the same substance'.

The ecological imprinting of the pharmaceutical business is further reinforced by the legislative aim to empower consumers, by strengthening, first and foremost, their right to information. As will be analyzed, consumer participation in decision-making processes and access to information represent tools for the protection of a range of interests, including environmental protection. There is no doubt that information, especially environmental information, is indispensable for ensuring comprehensive knowledge of the multifaceted issues related to this strategic sector and, at the same time, for promoting widespread social oversight. In this perspective, it is argued that information holds significant social and legal value, warranting robust protection.[65] This is the direction taken by Art 101 of the proposal for a regulation, which provides for the establishment by the EMA, in cooperation with the Member States and the Commission, of a database (EudraVigilance) containing information on medicinal products authorized in the Union and establishes an appropriate level of access to the consumer public. In support of this approach, reference is made to Art 104, para 1 COM(2023) 193, which prescribes the creation of a European medicines web-portal to facilitate 'the dissemination of information on medicinal products authorized or to be authorized in the Union', and of a register of studies for environmental risk assessment (Art 104, para 3). These are instruments that allow for the sharing of important information, thereby ensuring community participation. Properly informing pharmaceutical consumers is undoubtedly a fundamental tool for meeting the ecological challenge. Obviously, it will be necessary for the consumer to be able to consciously navigate the so-called information ecosystem, not by passively absorbing pre-packaged content but by critically engaging with that information. More precisely, consumers must become aware of being an active configurator of *societas*. Confirmation of the importance of consumer information and education is expressed not only by the European legislator (Art 169 TFEU) but also by the national legislator that, in Art 1, para 2, letters c and d of the consumer code identifies 'adequate information' and education as fundamental rights of the consumer to be promoted and protected, enabling consumers to navigate the market critically and achieve, in the best way possible, their well-being. Information can be

[65] 'Informing and being informed represent a structural necessity of the entire system', P. Perlingieri, 'L'informazione come bene giuridico', in Id, *Il diritto dei contratti fra persona e mercato* (Napoli: Edizioni Scientifiche Italiane, 2003), 336.

configured as a good that contributes to the formation of personality.[66] It is up to the jurist to ensure that the data economy develops in an ethically appropriate and free manner. This confirms that it is not possible to 'separate scientific-technological investigation from human and social investigation'.[67]

The reform of the pharmaceutical sector, moreover, emphasizes a participatory logic of consumers, recognizing them as bearers of the interest in the proper use of medicinal products for human use. Art 146 paras 1 and 8 of the proposed Regulation (COM(2023) 193) empowers the Scientific Committees, 'responsible for formulating the Agency's scientific opinions or recommendations, [...] to organize [...] public hearings [...] on general subjects, at an advisory level [...]. To this end, the Agency shall establish working groups of consumer organisations'.

An informed and aware consumer undeniably has the power to exercise external control as the holder of a general interest in ensuring that pharmaceutical activities align with the objectives of sustainable development.

In short, if 'the environment is the system that sustains our lives and is everyone's heritage, [t]he preservation, protection and improvement of *its* quality are common values'.[68] Accordingly, the right to access information and sit at the regulator's table becomes fundamental to protecting the interest of every person to live in an environment that ensures their well-being.

VIII. Concluding Remarks

The analysis conducted confirms that the protection of individuals and respect for the *habitat* must be considered as a unified value. This constitutes the foundation of the current constitutional legality, guiding both the legislator and the interpreter to promote in the performance of their activities a new

[66] P. Perlingieri, *Il diritto civile nella legalità costituzionale. Situazioni soggettive* (Napoli: Edizioni Scientifiche Italiane, 2020), III, 134. Appropriate, intelligible, and intelligent information becomes a fundamental tool of democracy. In this way, the Italian Constitutional Court also expresses itself, Corte costituzionale 17 April 1969 no 84.

[67] A. Alpini, 'La trasformazione digitale nella formazione del civilista' *Tecnologie e Diritto*, 1, 11 (2021).

[68] The words in inverted commas are used in the European Union Commission's Notice on Access to Justice in Environmental Matters of 18 August 2017 (C/275-01). On the point, see A. Krezel, 'Aarhus Regulation Administrative (self-) Review Mechanism: The Inevitable Failure to Contribute to Access to Justice in the EU?' 32 *European Energy and Environmental Law Review*, 136-144 (2023).

legal-economic order that is indispensable for ‘human soteriology’. The environmental interest, as the foundation of the continued enjoyment of fundamental rights in the future, shapes the entire legal experience. It is in this context that the review of pharmaceutical activity arises, which, in accordance with the Italian-European axiology, must be realized in accordance with the principle of sustainability.

Sustainable Drug Production and Consumption: Legal Profiles

Maria Francesca Lucente*

Abstract

The aim of the responsible production and consumption of drugs is to reduce the environmental and social impact and to promote human and environmental development in a sustainable manner. This requires the use of environmentally friendly resources, energy-efficient production processes, and the proper disposal of medicines. There is an urgent need for a cross-sectoral legal approach to the issue, which, while implying a new paradigm of contractual autonomy and a rethinking of the regulation of relations between private individuals, promotes the full protection of fundamental human rights in the long term, in solidarity, and from an intergenerational perspective.

Keywords

Production, Consumption, Sustainability, Drug, Waste, Pharmaceutical Packaging, Environmental Protection, Contractual Autonomy, Principle of Solidarity.

I. Introduction

The current general context of production and consumption, in which the effects of ongoing wars are compounded by those of the climate crisis, reveals the complexity and urgency of the challenge of sustainable development. There is growing awareness of the importance of responsible resource management as well as the inseparable link between human health and the environment. A strategic approach is called for, with the medium- and long-term goal of building production and consumption models resilient to future crises.[1] This is fully reflected in the pharmaceutical sector, where production and consumption are activities that have an increasing impact on the environment. The pharmaceutical industry is also one of the most energy-intensive in the world, its production processes require large amounts of natural resources, and produce a

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[1] Alleanza Italiana per lo Sviluppo Sostenibile (ASviS), *Produzione e consumo sostenibili* (2022), 7.

considerable amount of hazardous or toxic waste.[2] In this context, promoting the production and consumption of environmentally sustainable medicines is becoming increasingly important.

This requires on the one hand taking appropriate measures to reduce the pharmaceutical industry's impact on the environment and on the other hand improving the management of pharmaceutical waste. There is a critical need to strike the right balance between raising awareness and developing appropriate policies to prevent the potential negative environmental impacts of pharmaceuticals and to ensure access to safe and effective medicines for the benefit of public health.

This essay will press the need for action to be taken to reduce the environmentally harmful consequences of pharmaceutical waste and will raise the issue of the civil liability profiles of companies and consumers, all of whom are called upon to make their own active contribution to making the entire pharmaceutical production cycle sustainable.

Therefore, the fight against climate change and the concrete implementation of the ongoing ecological transition require not only a rethinking of the legal system, which must be based on a logic of sharing and care, in a perspective founded on solidarity, but also a renewed interpretation of legal relations between private individuals, which recognises the central role of the general community and the environment.[3]

Indeed, it is necessary to think of the legal system as a system that is not detached from social reality, but expressive of the contemporary culture that characterizes reality itself.[4]

It can be argued that, in the context of civil law, the contract can be conceptualized as a legal infrastructure with the potential to redesign the market, the production chain, and society in accordance with general principles and the particular principle of solidarity set

[2] C.E. Hoicka et al, 'Implementing a Just Renewable Energy Transition: Policy Advice for Transposing the New European Rules for Renewable Energy Communities' *Energy Policy*, 156, 6 (2021); J. Lowitzsch, 'The Consumer at the Heart of the Energy Markets?', in Id ed, *Energy Transition: Financing Consumer Co-Ownership in Renewables* (Cham: Springer International Publishing, 2019), 62; F. Azmat et al, 'Convergence of Business, Innovation, and Sustainability at the Tipping Point of the Sustainable Development Goals' *Journal of Business Research*, 167 (2023).

[3] F. Capra and U. Mattei, *L'ecologia del diritto. Verso un sistema giuridico in sintonia con la natura e la comunità* (Oakland: Berrett-Koehler Publishers, 2015), 27.

[4] On this subject, see L. Ammannati, 'Energia e ambiente: regolazione per la transizione', in M. Passalacqua ed, *Diritti e mercati nella transizione ecologica e digitale* (Padova: Cedam, 2021), 7; P. Perlingieri, 'Mercato, solidarietà e diritti umani' *Rassegna di diritto civile*, 88 (1995), now in Id, *Il diritto dei contratti fra persona e mercato. Problemi del diritto civile* (Napoli: Edizioni Scientifiche Italiane, 2003), 251.

out in Art 3 of the Constitution of the Republic of Italy. Such an outcome could be achieved in pursuit of sustainable development objectives.[5]

In the EU's recent interventions[6] focused on the green transition,[7] increasing importance is given to the legislative factor and, more generally, to the legal component in guiding and supporting the transition towards sustainability.

In Italy, unlike in other Member States, the existence of a rigid Constitution requires a balancing act between the emerging needs of the market and the production chain – including the pharmaceutical industry – and the protection of the individual, favouring legislative and hermeneutic solutions that avoid, even in an intergenerational perspective, injuries to health, the environment, and the human person.[8]

An analysis of the impact of European legislation on the production and consumption of pharmaceuticals allows us to identify potential avenues for the reformulation of legal institutions. This analysis also enables an evaluation to be made of how well the objective of sustainable development, which guides European legislators, aligns with the comprehensive protection of fundamental human rights.[9]

It is evident that novel profiles will emerge, encompassing new strategies and behavioural constraints imposed on companies engaged in the production process and consumers in their practices. These developments will have ramifications for the rights and obligations of individuals and companies operating within the same sector. This will facilitate the promotion of a circular, just, and

[5] L. Ruggeri, 'Diritto della transizione e sostenibilità: tra tutela del mercato e protezione della persona', in L. Ruggeri and A.E. Caterini eds, *Produzione e consumo sostenibili tra politiche legislative e prassi applicative* (Napoli: Edizioni Scientifiche Italiane, 2023), 32; J. Van Zeben, 'The Role of the EU Charter on Fundamental Rights in Climate Litigation' 2 *Wageningen Law Series* (2021).

[6] Here, reference is made to the 'European Green Deal measure', the 'Fit for 55 Package', and 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 [2024] OJ L series.

[7] For a closer look at the EU multilevel regulatory framework, see A. Jordan et al, 'EU Environmental Policy at 50: Retrospect and Prospect', in A. Jordan and V. Gravey eds, *Environmental Policy in the EU* (London-New York: Routledge, 2021), 357; S. Pätäri et al, 'Global Sustainability Megaforces in Shaping the Future of the European Pulp and Paper Industry Towards a Bioeconomy' 66 *Forest Policy and Economics*, 47 (2016).

[8] P. Perlingieri, 'La grande dicotomia diritto positivo-diritto naturale', in Id, *Interpretazione e legalità costituzionale. Antologia per una didattica progredita* (Napoli: Edizioni Scientifiche Italiane, 2012), 20.

[9] L. Ruggeri, 'Diritto della transizione e sostenibilità', n 5 above, 33.

sustainable economic model that respects the fundamental rights of the individual, in accordance with the intentions of the European legislator.

II. Production Processes and Drug Consumption Practices. Corporate Liability and Consumer Protection Profiles

The business community, including major pharmaceutical corporations, is obliged to assume a pivotal role in bolstering the legal culture of environmental sustainability. This entails the formulation of novel production and consumption practices aligned with the interests of the broader public and the pursuit of collective well-being.[10]

As will be seen below, in the European regulatory landscape, the final adoption of the Directive on Corporate Due Diligence for Sustainability[11] concluded the process through which Europe aims to make it mandatory for companies to commit to environmental sustainability. The aim of the Directive is to promote responsible business conduct through the systematic integration of sustainability principles into the values on which business decisions are based, thus promoting fair competition in the market. This new regime aims to give legal certainty to corporate responsibility by clarifying the legal consequences arising from it.

Shifting the focus more specifically to the pharmaceutical sector, Europe's medicines legislation[12] is the main tool for ensuring the

[10] M.E. Porter and M.R. Kramer, 'Creare valore condiviso: come reinventare il capitalismo e scatenare un'ondata di innovazione e crescita' 1 *Harvard Business Review*, 62-77 (2011).

[11] Reference is made to the recent European Parliament and Council Directive 2024/1760/EU.

[12] Among the various EU regulatory interventions, European Parliament and Council Directives 2001/83/EC of 6 November 2001 on the Community code relating to medicinal products for human use [2001] OJ L311/67, 2008/98/EU of 19 November 2008 on waste and repealing certain Directives [2008] OJ L312/3 and 2011/65/EU of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment [2011] OJ L174/88 establish rules on the restriction of the use of certain dangerous substances in electrical and electronic equipment used in the healthcare sector. Equally important is European Parliament and Council Regulation 2006/1907/EC of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC [2006] OJ L396/1, which requires pharmaceutical companies to evaluate the chemical substances they produce or import, ensuring their safe handling. See A. Spina, 'The Regulation of

quality, safety, and efficacy of medicines, as well as their environmental safety. A pharmaceutical environmental risk assessment is mandatory for all marketing authorization applications for medicinal products and is considered when assessing the benefit/risk ratio of medicinal products.

On this topic, within the European regulatory framework, the Strategic Approach to Pharmaceuticals in the Environment, adopted by the EU Commission with the aim of highlighting the critical issues related to the problem of environmental pollution from medicines,[13] deserves consideration. This initiative, taking place against a backdrop of growing concern about the impact of pharmaceuticals on the environment and health, has made crucial progress towards the creation of a solid regulatory framework aimed at ensuring sustainable drug production cycles in the European Union.

But there is more. Recently, with Regulation 2024/795/EU,[14] Europe has introduced a new Strategic Technology Platform (STEP) to strengthen European competitiveness and resilience in strategic sectors by reducing dependence on foreign supply chains. The objective is to reinforce production sectors, with particular focus on medical and pharmaceutical technologies. With this Regulation, Europe aims to introduce highly efficient and environmentally friendly platforms and techniques for the identification and production of active pharmaceutical ingredients.

The recent developments in European regulatory policy show that the pursuit of sustainable practices in pharmaceutical manufacturing is inextricably linked to the implementation of a new and challenging strategic approach for companies. This necessitates a comprehensive reassessment of objectives and the incorporation of environmental and social considerations throughout the production process, with the objective of transforming potential

Pharmaceuticals Beyond the State: EU and Global Administrative Systems' *Global Administrative Law and EU Administrative Law*, 257 (2011).

[13] Reference is made to the Communication of Commission EU to the European Parliament, the Council and the European Economic and Social Committee 'An EU Policy Approach to the Environmental Impact of Medicines' COM(2019) 128 final.

[14] European Parliament and Council Regulation 2024/795/EU of 29 February 2024 establishing the Strategic Technologies for Europe Platform (STEP) and amending Directive 2003/87/EC and Regulations (EU) 2021/1058, (EU) 2021/1056, (EU) 2021/1057, (EU) No 1303/2013, (EU) No 223/2014, (EU) 2021/1060, (EU) 2021/523, (EU) 2021/695, (EU) 2021/697 and (EU) 2021/241 [2024] OJ L series.

risks into opportunities through the renewal of business operations.[15]

However, the concept of sustainability is often perceived by some companies as a cost, especially in the short term.[16] This is illustrated by the aforementioned European Directive 2024/1760 which requires large pharmaceutical companies to meticulously manage social and environmental impacts throughout the production and distribution cycle of medicines. This implies that they are answerable for the consequences of failing to fulfil their due diligence obligations, which may result in human rights violations or environmental damage.[17] In acting in compliance with their due diligence obligations, businesses can demonstrate their commitment to ethical and sustainable business practices in compliance with the Directive. Doing so can enhance their reputation and increase trust in the market.

In the absence of compliance with the Directive's due diligence obligations, the key legal issue arises of what consequences, if any, are imposed on companies in such instances.

Where a breach of obligations to ensure respect for human rights as well as environmental protection throughout the production chain is identified, companies will have to take appropriate measures to mitigate, halt, or minimize the negative impacts resulting from their activities, the activities of their subsidiaries, and the activities of their business partners along their business chain. Companies will be held liable for unfair damages in the event of a violation, whether intentional or negligent, of the due diligence obligations provided for by the Directive if concrete damage to a natural or legal person derives from such unlawful conduct. On this point, in Italy, given the broad protection enjoyed by the legal asset

[15] On the evolution of corporate law, see G. Schneider, 'L'emergenza della sostenibilità nel prisma del new normal del diritto d'impresa europea' *Nuovo diritto societario*, 850 (2022).

[16] F. Denozza, 'Lo scopo della società, tra short-termism e stakeholders empowerment' 1 *Orizzonti del diritto commerciale*, 32 (2021); M. Libertini, 'Impresa e finalità sociali. Riflessioni sulla teoria della responsabilità sociale dell'impresa' *Rivista delle società*, 25 (2009).

[17] On the topic of the evolution of European company law, see G. Schneider, n 15 above. In this regard see P. Perlingieri, 'Persona, ambiente e sviluppo', in M. Pennasilico ed, *Contratto e ambiente. L'analisi «ecologica» del diritto contrattuale* (Napoli: Edizioni Scientifiche Italiane, 2016), 325.

'environment', both in doctrine[18] and in jurisprudence,[19] the functional profile of environmental protection is now configured in a dual perspective; in other words, environmental protection is conceived not only as a compensatory function, but also as a restorative and reintegrative function. This theorization of environmental protection does not reduce protection to a mere monetary equivalent of the injuries caused, but requires the prevention of the occurrence of damage and, if damage has occurred, places the burden of removing the event as well as the resulting burdens on the responsible party.[20]

As for the role of consumers, in respect of the sustainable development objectives imposed by Europe, it emerges that they are increasingly interested in knowing what attention the producers of the goods they purchase pay to issues such as environmental and health protection, along the entire production chain. Pharmaceutical companies are no exception precisely because of the sensitive nature of the sector in which they operate, which concerns a commodity as precious as human health. While it is true that the role of pharmaceutical entrepreneurship is widespread in the promotion of sustainability-oriented production models, it cannot be ruled out that consumers are also called upon to contribute in this direction by adopting conscious and responsible consumption practices, which the companies themselves must encourage and not hinder. After all, 'responsible consumption is an action by which the informed and aware consumer assesses the social value expressed in goods and the environmental impact of the company that produces them'.[21] This assessment serves to protect the interests of both the consumer and the wider community in the medium and long term. Consequently, there is a transition from a passive to an active role, whereby individuals are empowered to influence market dynamics through their purchasing decisions and to intervene in corporate

[18] On the impact of the principle of solidarity on the category of climate change damage, see M. Zarro, *Danno da cambiamento climatico e funzione sociale della responsabilità civile* (Napoli: Edizioni Scientifiche Italiane, 2022), 153.

[19] For further information, see the judgment of Consiglio di Stato 22 October 2019 no 10.

[20] L. Ruggeri, 'Which Law for Transition? The Market and the Person in a Prism of Sustainability', in L. Ruggeri and K. Zabrodina eds, *Making Production and Consumption Sustainable: A Global Challenge for Legislative Policies, Case Law and Contractual Practices. Guidelines for Changing Markets* (Wien: SGEM World Science, 2023), 38; V. Cariello, 'Per un diritto costituzionale della sostenibilità (oltre la «sostenibilità ambientale»)' *Orizzonti del diritto commerciale*, 427 (2022).

[21] For the notion of 'sustainable consumption', see ASviS, n 1 above, 31.

strategies to ensure genuine focus on the social dimension, while respecting environmental resources for all.[22]

It is imperative that consumers and patients are made aware of the potential risks associated with the consumption of medicines. This is to ensure that their use is neither excessive nor inappropriate. The reduction of the negative impacts of pharmaceuticals and the assurance that they continue to enhance the quality of life without compromising the health of the environment and future generations can be achieved only through collective action and a general duty of solidarity.

Europe's intention to empower the consumer in the green transition is clear.[23] Prominent in this respect is European Parliament and Council Directive 2024/825/EU[24] which, by banning misleading communications and promoting transparency and environmental responsibility in commercial practices, aims to promote greater consumer protection in every sector. This reform document provides for new rules to ensure that all EU consumers, wherever they live or shop in the EU, can enjoy a common, high level of protection against risks and threats to their safety and economic interests, as well as to enhance the ability of consumers to protect their own interests. Furthermore, these rules aim to strike a balance between the need to control information and communications that may influence consumers' purchasing choices by virtue of their moral sensitivities, their attitude to sustainability, and the risk of consumer confusion. This overcomes the limits that the qualitative information asymmetry inherent in sustainability claims may present with respect to ethically intended consumption, since these are also subject to the control and protection tools provided by the new regulatory dictate of the Due Diligence Directive. The purpose of this regulatory update would be to enable consumers to make more conscious and environmentally friendly purchasing choices, as well as to strengthen their protection against unreliable or false environmental sustainability claims by prohibiting the

[22] P. Perlingieri, 'Mercato', n 4 above, 257.

[23] M. Giobbi, *Il consumatore energetico nel prisma del quadro regolatore italiano ed eurounitario* (Napoli: Edizioni Scientifiche Italiane, 2021), 5; P.M. Sanfilippo, 'Tutela dell'ambiente e "assetti adeguati" dell'impresa: compliance, autonomia ed Enforcement' 6 *Rivista di diritto civile*, 1010 (2022).

[24] Reference is made to European Parliament and Council Directive 2024/825/EU amending Directives 2005/29/EC and 2011/83/EU as regards empowering consumers for the green transition through better protection against unfair practices and through better information [2024] OJ L series.

dissemination of misleading information.[25] In sum, legal certainty for professionals is enhanced, while consumer confidence in environmentally friendly products and accurate information regarding their environmental impact is also strengthened.

A recent ruling of the Court of Justice is also of interest in this regard,[26] due to the multiplier effect resulting from the application of the rules on judicial cooperation between Member States in matters of intentional or negligent torts, regardless of the place where the harmful event occurred or may occur. This is with a view to counteracting the possible violation of rules set up to protect the environment. In particular, this ruling is relevant insofar as it provides that producers of goods and services operating in Europe, including economic operators in the pharmaceutical sector, must ensure compliance with the rules established by European law and which may be assessed not only before the national jurisdiction in which they operate, but also before the courts of the other Member States of the Union. This is done in order to counteract the possible violation of rules set out to protect the environment.

The judgment explicitly refers to the recently introduced European Parliament and Council Directive 2024/825/EU,[27] thereby empowering consumers to play a greater role in the green transition. This is achieved by enhancing protection from unfair practices and information asymmetries.[28] In all sectors, including the pharmaceutical industry, where consumers perceive non-compliance with the behavioural constraints imposed on companies throughout the production chain, legal action may be taken to enforce compliance. This may be done by activating the legal instrument provided for in the event of a violation of the rules protecting the environment, namely the action for damages for civil liability.

[25] G. Ballerini, 'Spunti problematici su sostenibilità, modifiche alla italiana e Proposta di Direttiva Costituzione europea sulla dovuta diligenza' *Studium iuris*, 1001 (2022); E. Barcellona, 'La Sustainable Corporate Governance nelle proposte di riforma del diritto europeo: a proposito dei limiti strutturali del cd stakeholderism' *Rivista delle società*, 5 (2022).

[26] Case C-81/23 *MA* v *F SpA, FI SpA*, Judgment of 22 February 2024, available at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:C_202402398.

[27] European Parliament and Council Directive 2024/825/EU.

[28] See note to judgment: L. Idot, 'Règlement "Bruxelles I Bis" – Règle de compétence en matière délictuelle' *Europe*, 3 (2024).

III. Environmental Sustainability and the New Paradigm of Contractual Autonomy in the Drug Production Chain

The introduction of a revised framework of behavioural constraints concerning the forecasting and assessment of the potential risks that a given business activity may pose to human rights or the environment, and of new consumer protection profiles, places the individual and the realization of shared well-being at the centre, with a consequent change in the contractual paradigm.[29] In this regard, in Italy, with a view to sustainability, it is the constitutional principles that have made an important contribution to the protection of the environment, health, and the human person.[30]

The potential role can be considered of merit-based evaluation, conducted in accordance with constitutional values, in relation to supply contracts that are integral to the drug production and distribution chain. However, these contracts could potentially lead to human rights violations,[31] particularly in instances where they result in environmental damage due to the improper disposal of toxic substances.

If the environment in the Italian constitutional context is conceptualized as a common good that must be protected to facilitate the full and free development of the human person, it follows that the interpreter, who is tasked with carrying out checks of legitimacy and merit in accordance with the pivotal values of the system, must verify the conformity of the contractual arrangement to the value-environment. This process of verification thus allows for the attribution of an authentic 'ecological' connotation to acts of private initiative.[32] From this perspective, the act of contractual autonomy, in contrast with the general interest in the protection of the environment (as well as with other interests, such as the protection of health, psychophysical integrity, and, in the broader

[29] As to the preceptive scope of the principles, see S. Zuccarino, 'Sostenibilità ambientale e riconcettualizzazione del contratto' *Annali della Società Italiana degli Studiosi di Diritto Civile*, 77 (2022).

[30] In this topic, see V. Cariello, 'Per un diritto costituzionale', n 20 above, 437.

[31] S. Polidori, 'Il controllo di meritevolezza sugli atti di autonomia negoziale', in G. Perlingieri and M. D'ambrosio eds, *Fonti, metodo e interpretazione. Primo incontro di studio dell'associazione dei dottorati di diritto privato* (Napoli: Edizioni Scientifiche Italiane, 2017), 407; see also E. Caterini, *Sostenibilità e ordinamento civile. Per una riproposizione della questione sociale* (Napoli: Edizioni Scientifiche Italiane, 2018), 22.

[32] A. Jannarelli, 'Principi ambientali e conformazione dell'autonomia negoziale: considerazioni generali', in M. Pennasilico ed, *Contratto e ambiente. L'analisi "ecologica" del diritto contrattuale* (Napoli: Edizioni Scientifiche Italiane, 2016), 21.

sense, human dignity), cannot be considered to merit protection.[33] The absence of the contractual criterion of merits, whether at the level of the contract as a whole or of individual clauses, gives rise to a pathological phase of the contract, which in turn entails the consequent invalidity of the contract in its entirety or of individual clauses. The issue of control, specifically regarding the evaluation of merits, must be conducted in a concrete manner and about all acts of negotiation, whether typical or atypical. This extends even to those adopted within the context of the pharmaceutical production chain. The objective is to prevent the potential consequence that a private initiative, though causally lawful, may be deemed undeserving of protection if it fails to align with the concrete environmental interest.[34]

In light of the aforementioned considerations, it becomes evident that the evolving concept of contractual autonomy establishes protection of the environment as an intrinsic constraint within the scope of economic operator activities.[35]

This suggests that the conclusion of contracts pertaining to production processes, such as supply contracts within the pharmaceutical sector, means that each economic operator must commit to manufacturing products in accordance with production standards that are aligned with sustainability criteria, which should be explicitly stated[36] in dedicated clauses.[37]

Indeed, within the context of Italian private law, the notion of sustainability, as it pertains to sustainable development, is conceptualized as a production cycle that is integrated with social and environmental requirements, with due consideration of the needs of future generations in an intergenerational framework. The same doctrine[38] has repeatedly pointed out how, under Art 3 *quater*

[33] In this sense, see also M. Pennasilico, 'Contratto ecologico e conformazione dell'autonomia negoziale' 1 *Rivista quadrimestrale di diritto dell'ambiente*, 820 (2017) who writes: 'the principle of sustainable development thus constitutes a parameter of merit for ecological contracts'.

[34] S. Persia, 'Proprietà e contratto nel paradigma del diritto civile sostenibile' 1 *Rivista quadrimestrale di diritto dell'ambiente*, 17 (2018).

[35] M. Pennasilico, 'Sviluppo sostenibile, legalità costituzionale e analisi "ecologica" del contratto' *personaemercato.it*, 38 (2015); G. Perlingieri, 'Sostenibilità, ordinamento giuridico e «retorica dei diritti». A margine di un recente libro' *Il foro napoletano*, 101 (2020).

[36] European Parliament and Council Directive 2024/825/EU is recalled.

[37] S. Landini, 'Clausole di sostenibilità nei contratti tra privati. Problemi e riflessioni' *Diritto pubblico*, 611 (2015); R. Rolli, 'Contract Governance e sostenibilità' *Dirittobancario.it*, 2 (2024).

[38] In regard, see S. Landini, 'Clausole di sostenibilità', n 37 above, 627.

of the Environment Code,[39] every human activity must conform to the principle of sustainable development 'so that the principle of solidarity is also included in the dynamics of production and consumption in order to safeguard and improve the quality of the environment also for the future'. Furthermore, the Environmental Code stipulates responsibility to safeguard the environment for private entities, thereby substantiating the 'ecological' implications of contractual autonomy.

Subsequently, it is observed that the functional profile of the contract is in alignment with the constitutional objective of ensuring the 'full development of the human person' within a framework of solidarity and intergenerational responsibility (Art 3, para 2 of the Constitution).[40]

The necessity to safeguard the individual and future generations has established a novel contractual paradigm, defined as a contract for the protection of unspecified third parties or the entire community;[41] indeed, considering the principle of constitutional solidarity and the prospective relationship between contract and environment, the boundaries of contract relativity are transcended, and the protection of the community is justified. This is because the contract now has a direct impact on the community, rather than merely reflecting it.[42]

In light of this reappraisal of the concept of the contract, the activities inherent in the production chain of pharmaceutical companies are unified by a novel contractual paradigm. This paradigm is defined by its capacity to suggest novel expansions regarding its functional profile and the evaluation of the merits of private autonomy, considering the social and environmental purposes now enshrined in Art 41 of the Constitution. Consequently, it can be seen to perform a conforming function within the context of the so-called ecological contract.[43] In this sense, the function of

[39] Refer to decreto legislativo 3 April 2006 no 152.

[40] M. Pennasilico, 'La nozione giuridica di ambiente nella prospettiva sistematica e assiologica', in Id, *Manuale di diritto civile dell'ambiente* (Napoli: Edizioni Scientifiche Italiane, 2016), 19.

[41] G. Corso, 'Categorie giuridiche e diritto delle generazioni future', in F. Astone et al, *Cittadinanza e diritti delle generazioni future. Atti del Convegno di Copanello, 3-4 luglio 2009* (Soveria Mannelli: Rubbettino, 2010), 9.

[42] U. Mattei and A. Quarta, 'Tre tipi di solidarietà. Oltre la crisi nel diritto dei contratti' *giustiziacivile.com* (2020); M. Pennasilico, 'La "sostenibilità ambientale" nella dimensione civil-costituzionale: verso un diritto dello sviluppo umano ed ecologico' 3 *Rivista quadrimestrale di diritto dell'ambiente*, 4 (2020).

[43] G. Carapezza Figlia, 'I rapporti di utenza dei servizi pubblici tra autonomia negoziale e sussidiarietà orizzontale' *Rassegna di diritto civile*, 462 (2017).

the contract extends beyond the contracting parties, with the potential to impact the positions of third parties. This places the contract in an ultra-individual vision of its effectiveness. In this framework, private self-regulation performs the function of regulation and the implementation of general interests,[44] so that the acts of autonomy of private individuals or associations, which realize general interests of an environmental nature, whose relevant profile is the protection of a common good with shared and multiple enjoyment, will also produce effects towards third parties, thus acquiring external effectiveness.[45] Third parties, which are external to the contract but share the same common interests and are represented in the contractual regulation, will claim to be recipients of benefits derived from the stipulation and, more generally, of rules of conduct. From this perspective, the contract, which is intended to regulate multiple ecologically oriented interests, fulfils its effects in a dynamic and intergenerational dimension.[46] This involves those who, at a different stage and after its conclusion, encounter the environmental legal asset.[47]

This shift towards the sustainability of exchange is now an indication that our traditional classificatory schemes have been rendered obsolete. The theory and the very notion of contract can no longer be constructed in isolation of the specific case in question, considering the impact of each individual contract on the environment and the individual.[48]

From this perspective, contractual practice and recent European legislation[49] propose the inclusion of contractual sustainability clauses, which demonstrate how the contract can serve as a tool for enforcing and governing sustainability in the context of the current situation. [50]

[44] S. Persia, 'Proprietà', n 34 above, 18.

[45] A. Nervi, 'Beni comuni, ambiente e funzione del contratto', in M. Pennasilico ed, *Contratto e ambiente. L'analisi "ecologica" del diritto contrattuale* (Napoli: Edizioni Scientifiche Italiane, 2016), 48.

[46] On the intergenerationality of civil law institutions qualified as 'sustainable', see E. Caterini, 'Sostenibilità', n 31 above, 88.

[47] M.G. Cappiello, 'Il contratto "a rilevanza ecologica": nuovi scenari civilistici a tutela dell'ambiente' *Rivista quadrimestrale di diritto dell'ambient*, 127 (2020).

[48] M. Pennasilico, 'Contratto ecologico', n 33 above, 822.

[49] This section refers to several key international and European legislative initiatives, including the UN 2030 Agenda, the 'European Green Deal', the 'Fit for 55 Package', European Parliament and Council Directives 2022/2464/EU of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting [2022] OJ L322/15, and 2024/1760/EU on companies' duty of care for sustainability.

[50] R. Rolli, 'Contract Governance', n 37 above, 5.

In Italy, emblematic in this regard, also with reference to drug production processes, has been the orientation of the Italian Supreme Court[51] concerning immissions.

Italian Supreme Court judges have specified that the provision contained in Art 844 of the Italian Civil Code, 'in providing for the judge's assessment of the balancing of the needs of production with the reasons of property, must be interpreted, taking into account that the limit of the protection of health and the environment is to be considered intrinsic to the activity of production as well as to neighbourhood relations, in the light of a constitutionally oriented interpretation of the goods protected by Art 844 of the Italian Civil Code'. Such an interpretation positions the right to a normal quality of life more highly than the needs of production. It is evident, therefore, that even in the pharmaceutical sector, environmental sustainability and related contractual clauses integrate stringent obligations where prescribed by law or contract and operate as a general clause intrinsic to the system.

The proposed model is entirely consistent with the principles of the circular economy[52] as originally conceived by the European Union. This concept proposes a type of sustainable production that favours recyclability, with the objective of reducing the environmental impact throughout the production chain and transforming waste from one sector into raw material for another. In this regard, it is imperative to direct attention towards the management of pharmaceutical waste, particularly in relation to packaging waste, a subject that has recently been significantly impacted by legislative intervention.

IV. Sustainable Pharmaceutical Waste Management. Pharmaceutical Packaging Meets Environmental Sustainability

As highlighted by the European Commission,[53] the effective and sustainable management of pharmaceutical waste can serve to reduce the environmental impact and contribute to the protection of ecosystems.

[51] Refer to the Judgment of Corte di Cassazione 8 March 2010 no 5564, *Giustizia civile*, 820 (2010).

[52] J. Kirchher et al, 'Conceptualizing the Circular Economy: An Analysis of 114 Definitions' 127 *Resources, Conservation and Recycling*, 221 (2017).

[53] See the above-mentioned Communication of the Commission to the European Parliament, the Council and the European Economic and Social Committee 'An EU Policy Approach to the Environmental Impact of Medicines' COM(2019) 128 final.

A few environmental sustainability practices have been introduced at the European level with the objective of providing guidance on the management of pharmaceutical waste. These include not only the strategy of promoting the prescription of adequate quantities of medicines to avoid surpluses by supporting patient awareness and education campaigns, but also the sustainable practices of collecting and disposing of unused medicines, as well as recycling medicine packaging and reusing, where possible, unopened and unexpired medicines.

As known, the most recent legislative solutions introduced by Europe have the objective of incorporating sustainable waste management into the green transition. This is to be achieved through the implementation of more rigorous policies and the adoption of innovative technologies, with the aim of reducing the environmental impact of pharmaceutical waste and protecting public health. The management of pharmaceutical waste is inextricably linked to the role of pharmaceutical packaging.

It is anticipated that the implementation of a circular economy for packaging will facilitate the decoupling of economic growth from the use of natural resources, thereby contributing to the achievement of climate neutrality by 2050 and the halting of the loss of biodiversity. This suggests that the management of pharmaceutical packaging waste can be effectively aligned with environmental sustainability.

In the context of pharmaceutical packaging, the issue of recycling has assumed significant importance, to the extent that it cannot be regarded as a mere peripheral concern by the pharmaceutical industry. Indeed, pharmaceutical companies are increasingly being called upon to consider the recyclability of their products at the end of their use cycle, with a view to favouring, wherever possible, packaging with a lower environmental impact. Upon the introduction of a new pharmaceutical product to the market, it is subjected to a comprehensive evaluation process, which encompasses the assessment of its packaging. In the event of a change to the packaging, the drug in question must undergo the entire evaluation procedure once more. This is a lengthy and costly process, which contributes to pharmaceutical companies being constrained by their existing packaging choices. This, in turn, leads them to make compromises on sustainability that are, at best, only partially effective.

In the context of packaging waste, the recent Proposal for a Regulation approved by the EU Parliament[54] is a pertinent point of reference. This legislative proposal, which is supported by the case law of the Court, introduces certain exemptions for primary packaging that is in direct contact with medicines and for outer packaging. However, it also has the potential to exert a restrictive influence on the pharmaceutical sector.[55]

Indeed, particular categories of packaging are exempt from the regulations pertaining to recyclability in order to guarantee the safety and protection of human health. The exemptions pertain to primary packaging that is in direct contact with medicines, and outer packaging that is essential for maintaining the quality of the product. The objective of this regulatory provision is to guarantee that the specific requirements for the protection of medicines are not undermined.

One of the most intriguing aspects of the proposed regulation is the establishment of a unified packaging system based on harmonised standards across Member States. This is intended to address the limitations imposed by the current lack of harmonization in the regulatory framework on this subject. Additionally, the transition towards a harmonized and homogeneous regulation of a sustainable packaging system has been significantly influenced by the case law of the European Court of Justice.[56]

Indeed, in a recent case, the Court observed that the standards set by the regulation are designed to achieve a delicate equilibrium between the objective of free movement of packaging products and the protection of general interests, including the environment. The Court ruled that, in the absence of authorization by the European framework for Member States to adopt more restrictive standards with regard to certain sectors (such as pharmaceuticals), and in the absence of scientific evidence to show that the requirements defined at the European level are insufficient, the balance cannot be called into question by national authorities without precise limits and

[54] European Commission, 'Proposal for a Regulation of the European Parliament and of the Council on packaging and packaging waste, amending Regulation (EU) 2019/1020 and Directive (EU) 2019/904 and repealing Directive 94/62/EC' COM(2022) 677 final. This Proposal for an EU Regulation was approved by the EU Parliament on 15 March 2024.

[55] C. Zervos, 'Imballaggi green, nuove norme UE su riduzione rifiuti. Esenzioni sui farmaci: ecco quali sono' *Farmacista33.it*, 2 (2024).

[56] In this context, reference is made to the recent Case C-86/22 *Papier Mettler Italia S.r.l.* v *Ministero della Transizione Ecologica and Ministero dello Sviluppo Economico*, Judgment of 21 December 2023.

requirements.[57] It thus becomes evident that the recently proposed European measures, despite their focus on the entire packaging chain, also serve to reflexively promote a significantly heightened level of environmental and human health protection.

V. Concluding Remarks

Considering the current European regulatory framework, there is a compelling need to advance sustainable development, which entails the ongoing enhancement of society to guarantee collective well-being within a framework of solidarity. This implies that in the pharmaceutical sector, there is a need to achieve a balance between the use of resources and the protection of the environment, as well as to promote responsible patterns of production and consumption. Previously, environmental concerns were regarded as an external factor of European policies, with a primary focus on economic aspects. However, recent developments have led to a change in perspective, with environmental considerations now seen as an intrinsic element of the development process, in line with the concept of 'sustainable development'.[58] The proposition put forth is that there must be a balance between antithesis and symbiosis with respect to the environment and human development.[59]

In order to prevent not only the market but also democracy from becoming regimes that exploit natural resources without considering the future, it is necessary to base the new rules on intergenerational responsibility and promote a new ecological culture to induce appropriate and sustainable behaviour in the long term. The Italian Constitutional Court expressly referred to the concept of environmental sustainability from an intergenerational perspective in its ruling no 105 of 2024: 'the perspective of protection indicated by the constitutional legislator is of particular interest, which not only refers to the interests of individuals and the

[57] In this regard, see L. Butti, 'Imballaggi e rifiuti di imballaggio. Divieto della commercializzazione di sacchetti di plastica non biodegradabili per l'asporto delle merci' *Rivista giuridica dell'ambiente online*, 5 (2024); T. Reeves, 'L'imballaggio in Europa, Italia: il mercato e i fornitori negli anni '90' *Economist Intelligence Unit*, 3 (1990); G. Quadri, 'La gestione dei rifiuti tra contrastanti interessi costituzionalmente tutelati', in F. Lucarelli ed, *Ambiente, territorio e beni culturali nella giurisprudenza costituzionale* (Napoli: Editoriale Scientifica, 2006), 3.

[58] K. Parella, 'Protecting Third Parties in Contracts' 58 *American Business Law Journal*, 335 (2021); M.A. Ciocia, 'Le tappe dello sviluppo sostenibile', in Id and C. Ghionni eds, *Attività d'impresa e sviluppo sostenibile* (Napoli: Edizioni Scientifiche Italiane, 2021).

[59] M. Pennasilico, 'Sviluppo sostenibile', n 35 above, 40.

community in the present moment, but also extends to the interests of future generations, towards which the present generations have a precise duty to preserve the conditions so that they too can enjoy an environmental heritage that is as intact as possible'.[60]

Italian constitutional jurisprudence is thus aligned with that of France: the decision of the Conseil constitutionnel of 27 October 2023 in fact affirmed that the legislator, when adopting measures likely to have a serious and lasting impact on the environment, must verify that choices intended to meet the needs of the present do not in fact compromise the ability of future generations to decide on the matter, preserving their freedom of choice.[61]

In such a scenario, it is necessary to rethink and revisit, even in the pharmaceutical production chain, the traditional legal schemes of the contract and opt for the implementation of new models that consider the contract as an ecological system, which, oriented to the principle of solidarity, involves the interests of the parties and the general community by going beyond the relativity of effects. Third parties and the community must be involved in the negotiation phase of the contract through consultation and information procedures and must have the right to appeal in the event of violation of the right to be consulted and the right to receive clear and correct information.

The transition from an instrument regulating the individual and selfish interests of the parties to an instrument regulating collective interests makes it possible to state that the contract increasingly escapes the distinction between the public and the private. Even if concluded between private parties, the contractual regulation is necessarily shaped by the environmental interest, thus going beyond the reasons of the individual.[62] The ecological contract,[63] in conclusion, is a sustainable contract with external effectiveness aimed at realizing the fundamental rights of the human person and contributes, in this sense, to the implementation of social justice in an intergenerational perspective.

[60] On this point, in doctrine, see P. Pantalone, *La crisi pandemica dal punto di vista dei doveri. Diagnosi, prognosi e terapia dei problemi intergenerazionali secondo il diritto amministrativo* (Napoli: Editoriale Scientifica, 2023); G. Tulumello, 'Lo sviluppo sostenibile e la lotta al cambiamento climatico fra disciplina costituzionale e diritto dell'U.E.: la centralità della categoria dell'effettività e il ruolo della tutela giurisdizionale' *Giustizia amministrativa*, 5 (2024).

[61] Conseil constitutionnel 27 October 2023 no 2023-1066 QPC.

[62] S. Persia, 'Proprietà', n 34 above, 20.

[63] M. Pennasilico, 'Contratto ecologico', n 33 above, 823.

What is expected as a result is a 'transversal' law,[64] understood as a law on human and ecological development, in other words an innovative discipline based on the recovery of the age-old harmony between man and nature and the subordination of the ruinous primacy of the economy to the full protection of ecosystems and biodiversity. This will strengthen resilience, facilitate the transition from environmental sustainability as a problem to environmental sustainability as a solution,[65] and restore balance and total synergy between economic growth and ecological development, in every sector, including the pharmaceutical one.

Pharmaceutical companies are the primary actors in this process, along with consumers. They are responsible for implementing new and responsible production processes and adopting conscious consumption practices. These actions ensure the conservation or use of natural resources in line with the needs of the community and the full protection of a series of interests.[66] These interests can be traced back to the primary value of the human person. It is imperative to acknowledge that the complete and uninhibited development of the human person is contingent upon the prudent stewardship of the environment.[67] This must be done with a keen understanding of the historical yet intrinsic symbiotic relationship between humanity and the natural world.

[64] For further information on this topic, see P. Dell'Anno, 'Il ruolo dei principi del diritto ambientale europeo: norme di azione o di relazione?', in D. Amirante ed, *La forza normativa dei principi. Il contributo del diritto ambientale alla teoria generale* (Padova: CEDAM, 2006), 134.

[65] M. Pennasilico, 'La "sostenibilità ambientale" nella dimensione civil-costituzionale: verso un diritto dello "sviluppo umano ed ecologico"' 3 *Rivista quadrimestrale di diritto dell'ambiente*, 8 (2020).

[66] A. Nervi, 'Beni comuni', n 45 above, 51; M. Pennasilico, 'Sviluppo sostenibile', n 35 above, 44.

[67] P. Perlingieri, 'Persona, ambiente e sviluppo', n 17 above, 339.

EU Pharma Legislation Reform: Balancing Marketing Authorization, Environmental Risk Assessment, and IP Protection for Enhanced Innovation and Green Transition

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Abstract

This paper examines the proposed reform of European pharmaceutical legislation, with particular focus on the regulation of marketing authorization and pre-authorization environmental risk assessment, as well as the issue of industrial property rights and the proposed relaxation of patent protection. This focus serves to highlight some critical issues related to the role of investments in supporting drug research and production and might be useful for analysing the public-private relationship in the production and commercialization of pharmaceuticals, especially regarding the related impact on attracting private capital for research, innovation, and the green transition of the sector.

Keywords

EU Pharma Legislation, Marketing Authorization, Environmental Risk Assessment, IP Protection, R&D, Green Transition.

I. Context

In recent years, the sustainability of the pharmaceutical industry has attracted increasing attention from consumers, policymakers, and organizations. Since 2016,[1] numerous scientific papers have been published, showing that the presence of biologically active pharmaceutical substances in the environment, particularly detected through water studies, is now a fact.[2] The situation is a growing concern because some of these substances have shown direct and indirect effects on flora and fauna,

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[1] M. Milanesi et al, 'Pharmaceutical Industry Riding the Wave of Sustainability: Review and Opportunities for Future Research' *Journal of Cleaner Production*, 261 (2020).

[2] R.K. Singh et al, 'Strategic Issues in Pharmaceutical Supply Chains: A Review' *International Journal of Pharmaceutical and Healthcare Market*, 10, 234-257 (2016); B.M.K. Manda et al, 'Innovative Membrane Filtration System for Micropollutant Removal from Drinking Water – Prospective Environmental LCA and Its Integration in Business Decisions' *Journal of Cleaner Production*, 72, 153-166 (2014).

and therefore inevitably, on humans.[3] European institutions, seriously disturbed by the situation reported by scientists, have taken these studies into consideration and decided that studying solutions to the environmental impact of drugs during their production, use, and disposal is something for the EU to approach seriously and in an integrated manner.[4] Internationally, both the United Nations 2030 Agenda, particularly Sustainable Development Goal no 6, and the World Health Organization (WHO) stipulate commitments to act to counter the growing presence of drugs in the environment and to combat antimicrobial resistance.[5] The European Green Deal[6] also supports the adoption of measures to address pollution caused by new or particularly harmful sources, such as pharmaceuticals.

Drugs are not industrial products like any others,[7] but 'special' products, characterized primarily by their dual nature as instruments for protecting health, the supreme interest of individuals and the community, and at the same time, as potential objects of economic transactions. Their regulation, which sits at the intersection of different interests,[8] must

[3] W. Kong et al, 'Case Study on Environmental Safety and Sustainability of Pharmaceutical Production Based on Life Cycle Assessment of Enrofloxacin' *Journal of Environmental Chemical Engineering*, 9, 4 (2021); B. Blair et al, 'US News Media Coverage of Pharmaceutical Pollution in the Aquatic Environment: A Content Analysis of the Problems and Solutions Presented by Actors' *Environmental Management*, 60, 314-322 (2017).

[4] European Commission, 'European Union Strategic Approach to Pharmaceuticals in the Environment' (Communication) COM(2019) 128 final, available at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019DC0128&from=ES.

[5] Antimicrobial resistance (AMR) refers to the ability of microorganisms to withstand antimicrobial treatments. The overuse or misuse of antibiotics has been linked to the emergence and spread of microorganisms which are resistant to them, rendering treatment ineffective and posing a serious risk to public health. Residues of medicinal products are widely found in groundwaters and surface waters, including coastal waters and soils, and several publications show that antibiotic residues can contribute to AMR. 'Antimicrobial Resistance' *World Health Organization*, available at https://www.who.int/health-topics/antimicrobial-resistance.

[6] European Commission, 'The European Green Deal' (Communication) COM(2019) 640 final, para 2.1.8.

[7] F. Caroccia, 'La responsabilità per danno da prodotto farmaceutico' *Annali della Facoltà Giuridica dell'Università di Camerino*, 2 (2013).

[8] In the Italian legal landscape, evidence of the aforementioned dichotomy can be found in the very law that established the National Health System, legge 23 December 1978 no 833, Art 29, which states: 'The production and distribution of drugs must be regulated according to criteria consistent with the objectives of the national health service, the social function of the drug, and the predominant public purpose of production'. The provision, in fact, first refers to the objectives of the health system, namely the protection of health as a fundamental right of the individual and an interest of the community (Art 1 of the same law), and secondly it mentions the 'social function' of the drug, an explicit reference to Art 42 of the Constitution and the social function of property that justifies its limitation.

therefore attempt to strike a difficult balance between the protection of health[9] and the protection of economic initiative[10] and competition in the pharmaceutical sector.[11] Secondly, drugs are inherently 'dangerous': compliance with protocols and rules designed to reduce risk during the manufacturing phase ensures that the drug manufacturer can obtain certification of suitability and marketing authorization, establishing a presumption of conformity and safety.

To adapt pharmaceutical regulations to the objectives of the European Green Deal and the UN 2030 Agenda, the European Union has included regulations that could have an impact on the sustainability of the sector in the proposed reform of 'general pharmaceutical legislation', i.e., the European Parliament and Council Directive 2001/83/EC[12] and Regulation 726/2004/EC.[13] The proposal follows the path traced by the 'Pharmaceutical Strategy for Europe'[14] and is based on three guidelines: first, acquiring more data on the presence and pollution of pharmaceuticals (analyses are conducted for some types of drugs, especially for human use, but not all active ingredients are monitored); second, promoting the development of innovative ecological solutions, such as new delivery systems, products with lower environmental impact, advanced waste recycling, reduction of water use, green production methods, and recyclable packaging; finally, setting up stricter pre-authorization regulations for the Environmental Risk Assessment (ERA) of drugs,[15] which, according to the European Commission, should prompt pharmaceutical companies to evaluate and limit the potential negative effects of pharmaceutical production on the environment and public health.

[9] 'The essential aim of any rules governing the production, distribution and use of medicinal products must be to safeguard public health'. European Parliament and Council Directive 2001/83/EC, Recital no 2.

[10] The legal basis referred to by the European Parliament and Council Directive 2001/83/EC is, in particular, Art 114 TFEU.

[11] A. Cauduro, *L'accesso al farmaco* (Milano: Ledizioni, 2017), 9.

[12] European Parliament and Council Directive 2001/83/EC of 6 November 2001 on the Community code relating to medicinal products for human use [2001] OJ L311/67.

[13] European Parliament and Council Regulation 726/2004/EC of 31 March 2004 laying down Union procedures for the authorisation and supervision of medicinal products for human use and establishing a European Medicines Agency [2004] OJ L136/1.

[14] European Commission, 'Pharmaceutical Strategy for Europe' (Communication) COM(2020) 761 final, available at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0761&from=EN.

[15] D. Gildemeister et al, 'Improving the Regulatory Environmental Risk Assessment of Human Pharmaceuticals: Required Changes in the New Legislation' *Regulatory Toxicology and Pharmacology*, 142 (2023); C.T.A. Moermond et al, 'Proposal for Regulatory Risk Mitigation Measures for Human Pharmaceutical Residues in the Environment' *Regulatory Toxicology and Pharmacology*, 143 (2023).

II. Environmental Risk Assessment (ERA): Present European Regulation and New Directive Updates on the Impact for Drug Authorization

The environmental risk assessment of drugs is a systematic process aimed at determining the potential negative impact a drug might have on the environment. This process is essential to ensure that drugs do not cause significant harm to ecosystems or public health when they enter the environment, whether during production, use, or disposal. Currently, this is provided for by the European Parliament and Council Directive 2001/83/EC, as amended, in Art 8, para 3, letter ca. It requires that the application for marketing authorization for a new drug is accompanied by a series of information and documents, including an 'Evaluation of the potential environmental risks posed by the medicinal product. This impact shall be assessed and, on a case-by-case basis, specific arrangements to limit it shall be envisaged'.

The proposal[16] to revise the current regulatory texts defines ERA as 'the evaluation of the risks to the environment, or risks to public health, posed by the release of the medicinal product in the environment from the use and disposal of the medicinal product and the identification of risk prevention, limitation and mitigation measures'. It also specifies that 'for medicinal products with an antimicrobial mode of action, the environmental risk assessment also encompasses an evaluation of the risk for antimicrobial resistance selection in the environment due to the manufacturing, use and disposal of that medicinal product'.

This assessment is conducted through a multi-stage process that starts but potentially never ends. This is because it involves a step-by-step approach, which may be affected by requests from Competent Authorities and ongoing advancements in technical, scientific, and regulatory fields, necessitating new risk assessments and updated evidence of environmental impact. Under the current regulations,[17] environmental risk assessment is mandatory[18] for all marketing authorization applications (MAA) for a medicinal product for human use (HMP). It must

[16] European Commission, 'Proposal for a Directive of the European Parliament and of the Council on the Union code relating to medicinal products for human use, and repealing Directive 2001/83/EC and Directive 2009/35/EC' COM(2023) 192 final, available at https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52023PC0192.

[17] Currently applicable legislative acts that are expected to be affected by the revision are: European Parliament and Council Directive 2001/83/CE on the Community code relating to medicinal products for human use; European Parliament and Council Regulation 726/2004/EC laying down Union procedures for the authorisation and supervision of medicinal products for human use and establishing a European Medicines Agency.

[18] Art 8, para 3 of the European Parliament and Council Directive 2001/83/EC.

be conducted in accordance with specific EMA guidelines, last revised in 2024,[19] with the aim of 'protecting aquatic and terrestrial ecosystems including surface water, groundwater, soil, species at risk of secondary poisoning, and the risk for microbial processes in sewage treatment plants', and it is taken into account in the benefit/risk evaluation of these products. However, in any case, environmental impact is not currently a criterion for rejecting a marketing authorization.

With the proposed issuance of the new 'pharmaceutical package', stemming from the Pharmaceutical Strategy for Europe (Pharma Strategy),[20] which is already at an advanced stage, it is instead envisaged to strengthen the role of environmental risk assessment as a criterion for the marketing authorization of drugs. In particular, Art 15 of the draft Regulation,[21] titled 'Refusal of a centralised marketing authorisation', states:

> '1. The marketing authorisation shall be refused if, after verification of the particulars and documentation submitted in accordance with Article 6, the view is taken that: [...] (d) the environmental risk assessment is incomplete or not sufficiently substantiated by the applicant or if the risks identified in the environmental risk assessment have not been sufficiently addressed by the risk mitigation measures proposed by the applicant in accordance with Article 22, paragraph 3, of the [revised Directive 2001/83/EC]; [...] 2. The refusal of a Union marketing authorisation constitutes a prohibition to market the medicinal product concerned throughout the Union'.

Art 87 of the proposed Directive, on the other hand, prescribes that, even after granting marketing authorization, the competent authority of the Member State may impose on the holder of the same the obligation to carry out a study for environmental risk assessment post-authorization.

[19] Environmental risk assessment of medicinal products for human use – Scientific guideline, Current version – effective from 1 September 2024, available at https://www.ema.europa.eu/en/documents/scientific-guideline/guideline-environmental-risk-assessment-medicinal-products-human-use-revision-1_en.pdf.

[20] European Commission, 'Pharmaceutical Strategy for Europe' COM(2020) 761 final, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020DC0761.

Report available at https://health.ec.europa.eu/system/files/2021-02/pharma-strategy_report_en_0.pdf.

[21] European Commission, 'Proposal for a Regulation of the European Parliament and of the Council laying down Union procedures for the authorisation and supervision of medicinal products for human use and establishing rules governing the European Medicines Agency, amending Regulation (EC) No 1394/2007 and Regulation (EU) No 536/2014 and repealing Regulation (EC) No 726/2004, Regulation (EC) No 141/2000 and Regulation (EC) No 1901/2006' COM(2023) 193 final.

Moreover, it requires the collection of monitoring data or information on use if there are concerns about risks to the environment or public health, including antimicrobial resistance, due to an authorized medicinal product or a related active substance. The aforementioned provisions respond to the declared need for greater and more intense interaction between European pharmaceutical regulation and environmental regulation. This in order to balance on the one hand the need to protect the right to health, by ensuring the quality, safety, and efficacy of medicines and the possibility of accessing the best treatments, and, on the other hand, the protection of the environment, always ensuring that 'measures to address risks do not compromise access to safe and effective pharmaceutical treatments for human and animal patients'.[22]

III. Balance and Interference Between ERA Regulations for Drug Marketing Authorizations, IP Protection, and Innovation Support

1. Twin Transition in the Pharmaceutical Sector

It is interesting to note that in all the proposed amendments to pharmaceutical legislation under analysis, there is a close connection between environmental issues and innovation. It is widely stated that 'EU pharmaceutical legislation can serve as an enabling and linking factor for innovation, access, affordability, and environmental protection'.[23]

More generally, under the lens of the European 'twin transition', in all sectors, the two processes of technological and ecological transition are seen as interconnected and synergistic, as technological advancement can facilitate environmental sustainability and, at the same time, greater sustainability can stimulate innovation. But, especially in the pharmaceutical sector – currently scrutinized for the aforementioned potential environmental issues – advanced technologies and innovative practices can significantly contribute to reducing the environmental impact of the production, marketing, use, and disposal of drugs, while improving operational efficiency and product quality.[24]

[22] European Union Strategic Approach to Pharmaceuticals in the Environment, n 4 above, para 3.

[23] European Commission, 'Proposal for a Directive of the European Parliament and of the Council on the Union code relating to medicinal products for human use, and repealing Directive 2001/83/EC and Directive 2009/35/EC' COM(2023) 192 final.

[24] Many productors are working across their pipeline to foresee and prevent unintended impact of drugs. See, for example, the Novartis report describing the process of integrating ESG targets into business strategies, available at https://www.novartis.com/esg/environmental-sustainability.

In terms of sustainable production, exploration of the following solutions could ensure the sustainability of this high-impact industry: the use of biological organisms and advanced biotechnologies to produce pharmaceutical active ingredients with lower greenhouse gas emissions and less chemical waste compared to traditional methods;[25] the use of 3D printing to reduce waste and optimize material use;[26] the integration of digital technologies in supply chain management; the adoption of circular economy practices for recycling packaging materials and reusing pharmaceutical waste;[27] the use of biodegradable materials and advanced technologies for waste treatment or reduction to safely decompose pharmaceutical compounds and prevent environmental contamination; innovation in production processes;[28] and the use of smart manufacturing systems that integrate sensors and advanced automation.[29] It is for these reasons that the European Union certainly wants to support the development of drugs and manufacturing processes that are inherently less harmful to the environment. To do so, recognizes the importance of supporting research and innovation to develop 'greener'[30] drugs and processes that can more easily degrade into harmless substances in wastewater treatment plants and the environment.

2. Influence of Patents on Innovation

The inclusion of environmental risk assessment among the requirements for marketing authorization, following the consultation procedure held, was judged by some governments[31] and numerous stakeholders as disproportionate to the already high environmental standards in the pharmaceutical industry[32] and to the objectives of innovation development to benefit the marketing of green drugs. Major doubts have arisen because the environmental risk assessment regulations

[25] D. Etit et al, 'Can Biotechnology Lead the Way Toward a Sustainable Pharmaceutical Industry?' 87 *Current Opinion in Biotechnology* (2024).

[26] M. Elbadawi et al, 'Energy Consumption and Carbon Footprint of 3D Printing in Pharmaceutical Manufacture' 639 *International Journal of Pharmaceutics* (2023).

[27] L. Schenck et al, 'A Commentary on Co-Processed API as a Promising Approach to Improve Sustainability for the Pharmaceutical Industry' 113(2) *Journal of Pharmaceutical Sciences*, 306-313 (2024).

[28] Y. Chen et al, 'Optimization of Key Energy and Performance Metrics for Drug Product Manufacturing' 631 *International Journal of Pharmaceutics* (2023).

[29] F. Destro et al, 'Advanced Methodologies for Model-based Optimization and Control of Pharmaceutical Processes' 45 *Current Opinion in Chemical Engineering* (2024).

[30] K. Kümmerer, 'Increased Handling and Use Measures at the Source and Better Biodegradable Pharmaceuticals Are Necessary in the Long Run for the New Paradigm Called "Sustainable Pharmacy"' 35 *Pharmaceuticals in the Environment, Annual Review of Environment and Resources*, 57-75 (2010).

[31] The Italian government, for example.

[32] Among them are trade associations and also the American Chamber of Commerce.

in the proposed amendments are accompanied by intellectual property protection rules that provide for the modification of the regulatory data protection (RDP) rule to allow biosimilar and generic products to enter the market earlier.[33] Another concern relates to the reduction of the market exclusivity period for companies that do not make their drugs available in all EU markets.[34]

It is well known that the launch of drugs and medical devices on the market is the result of a long-term and highly uncertain process. The research and development investments required to reach this phase are substantial and are recovered through sales only over the long term.[35] Moreover, only a small percentage of products successfully pass the initial stages of experimentation and approval and the average cost of R&D for a new treatment in the pharmaceutical industry has been estimated to be between $780 million and $2.8 billion.[36] Therefore, the study and development of some drugs are not initially incentivized, at least from an economic standpoint.[37]

Consideration of the positive influence of patents on innovation and competition in the pharmaceutical industry is not unanimous; indeed, some studies question it.[38] However, the concern about the reduction in data protection and market exclusivity periods in this specific case is determined by the concurrent need to make costly efforts to obtain a complete risk assessment of drugs before they can be authorized for marketing. Consequently, pharmaceutical companies will need to invest more resources and time to conduct thorough environmental studies, which could result in a significant increase in drug development costs and extend the time to bring them to market and remunerate the effort made through commercialization, without being rewarded by a reasonable

[33] In particular, the predefined RDP period could be reduced from eight to six years. See Art 81, Proposal for a Directive, n 16 above.

[34] A reduction of two years from the ten years during which companies can sell their drugs without competition from generic rivals, adding years of 'additional protection' only if a drug is made available in all EU Member States. If a company does not make its drug available across the entire bloc, generic competitors will be able to do so. Pharmaceutical companies will also be strongly incentivized to sit at the negotiating table on prices to reach a timely agreement in each of the EU Member States.

[35] M.K. Kyle, 'Incentives for Pharmaceutical Innovation: What's Working, What's Lacking' 84 *International Journal of Industrial Organization* (2022).

[36] J.A. DiMasi et al, 'Innovation in the Pharmaceutical Industry: New Estimates of R&D Costs' 47 *Journal of Health Economics*, 20-33 (2016).

[37] E. Zuddas, 'Prime riflessioni sulla proposta di riforma della legislazione farmaceutica dell'Unione europea e il tema dei farmaci orfani' *Corti supreme e salute*, 3, 777-778 (2023).

[38] G. Dosi et al, 'Do Patents Really Foster Innovation in the Pharmaceutical Sector? Results from an Evolutionary, Agent-Based Model' 212 *Journal of Economic Behavior and Organization*, 564-589 (2023).

period of exclusive rights and data protection. All this could delay access to essential drugs, particularly for urgent conditions such as cancer, jeopardizing patient care and timely access to treatments.[39]

At the same time, the reduced protection provided by the modification of pharmaceutical industrial property rules could lead to a contraction of private investment in pharmaceutical research and development, determined by the lower profitability of the investment itself[40]. This also in consideration of the contrast to monopolies and dominant positions imposed by European competition protection rules, which might not adequately guarantee the invested capital in the pharmaceutical sector that requires large amounts of capital for R&D.

Over time, the complex of the examined policies could result in a smaller share of private capital employed in R&D, unless hefty compensation is made through public intervention.[41] European companies could thus suffer competitive disadvantages compared to countries with less stringent regulations. It should be noted that the global pharmaceutical industry is based on the massive presence of US companies,[42] which constitute the largest and most concentrated segment: among the top ten pharmaceutical companies, five are American; their revenue is equal to 60% of the total turnover of the top ten; the total revenue of American pharmaceutical companies is equal to 49.5% of the global turnover. This shows that US companies are rewarded by their strong concentration, allowing both the American industry and the top companies to maintain a dominant position in domestic and external markets.

The European market, on the other hand, accounts for about 29%, and, also due to policies against monopolistic and/or dominant positions,[43] there is significant fragmentation, as evidenced by data from the EFPIA 2022 report. Only one European company[44] is positioned among the top ten in terms of revenue.

[39] Investments in pharmaceutical research and development (R&D) have significantly increased over the past two decades; however, the rate of new drug approvals remains slow: for instance, fewer than 40 new molecules were approved each year between 1984 and 2018. See https://www.aboutpharma.com/aziende/rd-nel-farmaceutico-trasformazione-necessaria-per-restare-al-passo-con-linnovazione/.

[40] F. Gaessler and S. Wagner, 'Patents, Data Exclusivity, and the Development of New Drugs' 140 *The Review of Economics and Statistics*, 571-586 (2022).

[41] Which in Europe must be provided in compliance with the European State Aid Regulations.

[42] K. Dunleavy, 'The Top 20 Pharma Companies by 2022 Revenue' *Fierce Pharma*, Special Report (2023).

[43] Due to regulations protecting free competition among businesses.

[44] Sanofi Aventis.

However, the European pharmaceutical market is highly competitive internally and is characterized by very high levels of research and development expenditure (which increased even more after the Covid pandemic) and a consequently high number of industrial property titles.[45] If the combination of changes to the ERA, in the sense of making submission of an ERA mandatory for marketing authorization, along with the reduction of IP protection, were to negatively impact private investment in R&D, among other things, a paradoxical situation would arise where there would be fewer opportunities to develop greener drugs, as the objective of the same changes.

The debate on the dichotomy between industrial protection/innovation/access to drugs is not unknown to the Italian regulatory, jurisprudential, and doctrinal landscape. Even in 1978, the issue was addressed by a historic ruling of the Italian Constitutional Court[46] declaring the unconstitutionality of the rule[47] that prohibited the patentability of drugs.[48] Re-reading the ruling and its motivations, almost fifty years later, and evaluating the balancing of values and interests, can provide a valuable insight into attempts to give current answers to issues that, although new, have common elements with those of the past.

Among the reasons for the unconstitutionality of the rule, multiple arguments were also made concerning the need to promote scientific research. The Supreme Court noted in its ruling that 'one of the purposes of granting property rights arising from patenting is to incentivize research, covering first and foremost the substantial expenses that its organization and conduct entail'. After emphasizing that research is either financed by public bodies or by private entities, which therefore have an interest in seeing their participation remunerated, the ruling concluded that 'if the patent institute is considered socially useful in very delicate sectors of collective life, there must be reasonable grounds for differentiation to exclude such usefulness in the pharmaceutical sector'. In much more recent times, the Covid-19 pandemic and the rapid development and commercialization of various vaccines have shown how medical-pharmaceutical research and innovation can be strongly incentivized by the granting of exclusive rights obtained through

[45] M. Filippelli, 'Note introduttive', in Id, 'Concorrenza, regolazione e innovazione nel settore farmaceutico' *Concorrenza e mercato*, 28, 3-7 (2021).

[46] Corte costituzionale 20 March 1978 no 20, available at: https://giurcost.org. See the case note by C. Chiola, 'La brevettabilità dei medicamenti: dagli speziali alle multinazionali' *Giurisprudenza costituzionale*, 682 (1978).

[47] Art 14, regio decreto 29 June 1939 no 1127.

[48] R. Pardolesi, 'Sul divieto di brevettazione di farmaci' *Foro italiano (*1978); C. Casonato, 'I farmaci, tra speculazioni e logiche costituzionali' *Rivista AIC*, 4 (2017).

patenting.[49] These results seem to confirm[50] that IP protection stimulates the costly and complex innovative process, which would hardly be realized without the expectation of exclusivity over the results.

IV. Compliance of Pharmaceutical Sector Contracts with the Sustainable Development Principles and the Relevance of the DNSH Principle

1. Sustainable Development and Contracts

At this point, the question arises as to whether, in order to promote the ecological transition of the pharmaceutical industry, sector contracts can be shaped by environmental sustainability principles, and if so, how and with what consequences. It is not appropriate here to delve deeply into a civil law examination of whether the principle of sustainable development can have binding force in contractual matters. The issue is debated in Italian doctrine,[51] which is divided in two. Some believe that the principle can have horizontal application, i.e., that it can be effective in relationships between private parties, either directly[52] or indirectly through judgments based on the parameter of 'worthiness'.[53] Others assert that it is a principle that can operate only in the vertical sense, regulating the conduct of Member States and their administrative bodies.[54] While the first opinion

[49] M. Filippelli, n 45 above.

[50] On this point, however, there is no consensus. For an overview of the different positions, see: G. Ghidini, *Profili evolutivi del diritto industriale* (Milano: Giuffrè, 3rd ed, 2015), 82-94; and M. Libertini, 'Tutela a promozione delle creazioni intellettuali e limiti funzionali della proprietà intellettuale' *AIDA*, 299 (2014)

[51] P. Dell'Anno, 'Il ruolo dei principi del diritto ambientale europeo: norma d'azione o di relazione?', in D. Amirante ed, *La forza normativa dei principi (il contributo del diritto ambientale alla teoria generale*) (Padova: CEDAM, 2006), 117; G. D'Amico, 'Problemi (e limiti) dell'applicazione diretta dei principi costituzionali nei rapporti di diritto privato' *Giustizia civile*, 448 (2016).

[52] M. Pennasilico, 'La "sostenibilità ambientale" nella dimensione civil-costituzionale: verso un diritto dello sviluppo "umano ed ecologico"' *Rivista quadrimestrale di diritto dell'ambiente*, 27 (2020).

[53] M. Pennasilico, 'Dal «controllo» alla «conformazione» dei contratti: itinerari della meritevolezza' *Contratti e impresa*, 844 (2020); Id, 'La sostenibilità ambientale nella dimensione civil-costituzionale', n 52 above, 29; P. Perlingieri, '«Controllo» e «conformazione» degli atti di autonomia negoziale' *Rassegna di diritto civile*, 211 (2017); Id, 'Persona, ambiente, sviluppo', in M. Pennasilico ed, *Contratto e ambiente* (Napoli: Edizioni Scientifiche Italiane, 2016), 325; A. Jannarelli, 'Principi ambientali e conformazione dell'autonomia negoziale', ibid 19.

[54] V. Barral, 'Sustainable Development in International Law: Nature and Operation of an Evolutive Legal Norm' 377 *European Journal of International Law* (2012); F. Fracchia, *Introduzione allo studio del diritto dell'ambiente* (Napoli: Editoriale Scientifica, 2013), 118; R. Leonardi, *La tutela dell'interesse ambientale tra procedimenti, dissensi e*

remains uncertain, also due to the semantic indeterminacy that characterizes the principle of 'sustainable development' and therefore the objective difficulty in identifying the exact contours of a binding rule to be applied in private relationships, there is no doubt today about the binding nature of environmental sustainability obligations in public contracting, especially through the application of the DNSH 'Do No Significant Harm' principle.[55]

The principle, as it is used today, was introduced by the European Parliament and Council Regulation 2020/852/EU, also known as the Taxonomy Regulation, which aims to establish a framework to facilitate sustainable investments in the European Union. It stipulates that an economic activity, in order to be financed with European funds, must not cause significant harm to any of the six environmental objectives defined by the Regulation.

Art 12 of the same Regulation 2020/852/EU mentions pollution from pharmaceutical substances, stating that:

> 'An economic activity shall qualify as contributing substantially to the sustainable use and protection of water and marine resources where that activity either contributes substantially to achieving the good status of bodies of water (…) by: (a) protecting the environment from the adverse effects of urban and industrial waste water discharges, including from contaminants of emerging concern such as pharmaceuticals and microplastics, for example by ensuring the adequate collection, treatment and discharge of urban and industrial waste waters'.

In Italy, the binding nature of the DNSH principle in the allocation of public funds and public procurement is now a well-established reality following the long-standing Minimum Environmental Criteria (CAM).[56]

silenzi (Torino: Giappichelli, 2020); C. Irti, 'Gli "appalti verdi" tra pubblico e privato' *Contratto e impresa/Europa*, 204 (2017).

[55] B. Miralles et al, 'The Implementation of the "Do No Significant Harm" Principle in Selected EU Instruments' (Luxembourg: Publications Office of the European Union, 2023).

[56] These are specific measures, approved by the Decree of the Minister of the Environment and Energy Security, aimed at integrating environmental sustainability requirements for various categories of public administration tenders. They fall within the policy tools for 'green public procurement'. The use of Minimum Environmental Criteria (CAM) is referenced by decreto legislativo 31 March 2023 no 36, Art 57, para 2.

More specifically, public contracts[57] financed with PNRR[58] funds are undoubtedly subject to the application of the principle in question, for which Italy has made specific commitments to the European Commission.

In practice, funding decrees and specific technical tender documents explicitly detail the essential elements necessary for compliance with the DNSH principle,[59] and administrative mechanisms that automatically suspend payments and invoke proceedings in the case of non-compliance with the DNSH are sometimes provided. Similarly, in public procurement, administrations guide interventions to ensure conformity by including appropriate references and specific indications in their planning documents, for example through the adoption of exclusion lists and/or selection criteria in project funding notices; they include DNSH requirements in the tender specifications and contracts (and verify them during the selection phase), signed with contractors; they adopt compliant criteria to ensure adequate design and implementation of interventions; and they define the necessary documentation for any controls.

The remedies for non-compliance with these provisions differ depending on the phase of the tender to which they refer. For the public selection phase, the exclusion of competitors who do not meet the required criteria is generally provided for. Numerous court rulings enforce the application of the principle, such as the decision declaring the legitimacy of excluding a competitor from the tender procedure due to the inadmissibility of the technical offer for lack of a document identifying elements for verifying DNSH constraints in a tender for the supply of electric buses.[60]

As for the contract execution phase, non-compliance with the DNSH compliance conditions, ascertained following the monitoring and checks carried out or requested by the contracting authority, in addition to the application of penalties as stipulated in the contract, if provided, typically constitutes grounds for automatic contract termination under Art 1456 of the Civil Code.

[57] The Ragioneria dello Stato, with Circular no 32 of 2021, adopted Guidelines for compliance with the DNSH principle in public tenders, providing operational instructions to Contracting Authorities. The Guidelines were recently updated with Circular no 22 of 14 May 2024.

[58] As provided by Art 18 of the European Parliament and Council Regulation 2021/241/EU.

[59] For example, for all interventions involving the purchase of computers, electrical and electronic equipment, and servers by a public authority, management and operational guidelines are provided, including the requirement that products must have an environmental label according to the UNI EN ISO 14024 classification, or alternatively, a declaration from the manufacturer certifying that the typical energy consumption does not exceed certain predefined limits. This according with the Circular referenced in n 57 above.

[60] Tribunale amministrativo regionale Puglia 4 March 2024 no 263.

2. DNSH Principle in Pharmaceutical Contracts: A Double-edged Sword

With this said, narrowing the field of investigation to the application of the DNSH principle to pharmaceutical sector contracts, the following considerations are relevant: firstly, among the sectors provided for in the technical sheets of the 'Operational Guide for Compliance with the DNSH Principle'[61] – related to each intervention sector (e.g., the construction of new buildings, photovoltaics, cycle paths), which provide the administrations responsible for PNRR measures and the implementing bodies with a summary of operational and regulatory information identifying DNSH constraints and a checklist for verification and control for each intervention sector – the pharmaceutical sector is not included. The activities of interest that might be included could fall under sheet no 26 – 'Enterprise and Research Financing', which do not require belonging to a specific NACE code,[62] but contracts for the supply of medicines would still be excluded.

Beyond this, even hypothetically considering the introduction of specific binding provisions for DNSH compliance in tenders for the purchase of pharmaceuticals,[63] their practical implications would need to be evaluated. From this perspective, the administration's use of early termination instruments in the case of a breach of environmental obligations is not always feasible.[64] Indeed, in the specific case of pharmaceutical supply, it is inappropriate considering the peculiarity of the interests pursued. The supply of medicines to healthcare facilities serves the highest purpose of health protection and the guarantee of the broadest enjoyment of the right to pharmaceutical assistance for all citizens. The termination of contracts with such an objective – even if aimed at environmental protection goals – is not a satisfactory remedy for these interests. It is not always possible to replace the supply of a product with biosimilar or equivalent medicines produced by other suppliers since

[61] Updated with the Circular referenced in n 57 above.

[62] The NACE code (Nomenclature statistique des Activités économiques dans la Communauté Européenne) is a statistical classification code for economic activities, defined by the European Parliament and Council Regulation 1893/2006/EC.

[63] This is undoubtedly a prerogative granted to national legislators who, while respecting supranational regulations, can indeed issue legislative provisions that oblige administrations to pursue environmental interests with their procurement. This has happened, for example, with decreto legislativo 18 April 2016 no 50, which introduced the mandatory application of the Minimum Environmental Criteria (CAM) in Art 34. This provision finds even greater legitimacy after the constitutional amendment of Arts 9 and 41, which increased the importance and strengthened the role of environmental interests.

[64] E. Caruso, 'Public Procurement Between Sustainability Goals and Competitive Purposes: In Search of a New Equilibrium' *P.A. Persona e Amministrazione*, 10, 1, 298 (2022).

drugs of a certain brand, as long as they are covered by market exclusivity or defined as orphan drugs,[65] are considered irreplaceable goods.

Given the above, for the purpose of achieving environmental protection goals against pharmaceutical pollution, the contractual route does not seem to be the most suitable. For similar, albeit not identical, reasons, the implementation of the Corporate Sustainability Due Diligence Directive[66] is also not the most appropriate tool,[67] because the remedy is merely punitive/compensatory.[68]

If the European and national legislator's aim remains to reduce, if not eliminate, the presence of pharmaceutical compounds in the environment, then other instruments should be used to incentivize green production.

V. Conclusion

In the extraordinary complexity and delicacy of the topic of sustainability of the pharmaceutical industry, which intersects with areas of combating climate change, innovation, and IP protection, it is undoubtedly necessary to consider the medium- to long-term impacts of the introduced provisions, and also to evaluate them in relation to other innovations, to avoid effects worse than those that it is intended to prevent. Specifically, excessively rigid environmental assessment (making it mandatory), combined with the restriction of IP protection terms, means risking discouraging private investments in the pharmaceutical sector.

Therefore, it is essential to identify possible regulatory strategies to achieve a balance between the two needs: ensuring greater sustainability and safety in the production and marketing of drugs while not hindering research and development and private investment in innovation.

Innovation policies are traditionally divided into two categories: those that can 'pull' innovation from the private sector by making investments more profitable through increased profits from the developed products, or 'push' innovation by public entities by underwriting the associated costs.[69] Among the 'pull' policies, all strategies of patent restriction or expansion can be included. On the other hand, among the 'push' policies, there are general policies such as R&D tax credits as well as more specific grants or subsidies for specific projects with well-defined objectives.

[65] Orphan drugs are medications intended for the treatment of rare diseases that risk not being produced due to their limited use by a small number of patients, and thus being minimally profitable.

[66] European Parliament and Council Directive 2024/1760/EU.

[67] B. Saavedra Servida, 'Sostenibilità ambientale, autonomia privata e private regulation' *Dialoghi di diritto dell'economia*, 21 (2024).

[68] Arts 25 and 26.

[69] M.K. Kyle, n 35 above.

A good strategy in this regard could be, first of all, to introduce specific incentives for Sustainable Pharmaceutical Research for companies that invest in the research and development[70] of sustainable drugs, also creating special authorization regimes for State Aid.[71] It should be noted that currently, despite the peculiarities of the pharmaceutical sector, aid granted by States to companies does not have a specific regulation in European law but falls mostly within the general framework of aid for research and development.

Among the possibilities, granting tax credits,[72] which, unlike other types of aid (particularly direct subsidies), allow companies to select investment projects without orienting them and, if designed to be independent of the profitability of the research conducted, would be able to incentivize investments characterized by greater uncertainty and more modest expected returns, just as in the case of R&D activities.[73]

As for Environmental Impact Assessment, it could provide for a procedure and requirements that are proportionate and effective for the intended purposes, to avoid overburdening companies with excessive or merely formal requirements that do not add significant value to environmental protection.

A 'Fast-Track' procedure for sustainable innovations could also be considered, i.e., particularly accelerated authorization for products that demonstrate significant environmental benefits (without compromising safety and efficacy), also differentiating ERA requirements based on the product's risk class and reducing burdens for low-impact products.

More specifically, similar to the mechanisms of self-certification,[74] this 'accelerated procedure' could be considered for pharmaceutical products developed with the declared intent of bringing green innovation to the sector, in order to contribute to the sustainability goals of the industry. Simultaneously, a priority review line could be established for these products, thereby reducing the waiting times for authorizations. The implementation of a continuous, ex-post monitoring system could then allow for verification that products authorized through the 'Fast-Track'

[70] For an overview of the topic of tax incentives that can promote innovation, see P. Boria, 'La ricerca e l'innovazione industriale come fattori di una fiscalità agevolata' *Diritto e pratica tributaria*, 5, I, 1869-1911 (2017).

[71] G. Fonderico, 'Aiuti di Stato e industria dei medicinali', in M. Filippelli, n 45 above, 76.

[72] E. Olive et al, 'Do R& D Tax Credits Impact Pharmaceutical Innovation? Evidence from a Synthetic Control Approach' *Research Policy*, 53 (2024).

[73] F. Gastaldi and F. Venturini, 'Gli incentivi fiscali alla Ricerca e Sviluppo in Italia' *Ufficio parlamentare di bilancio. Focus tematico*, 8, (2022).

[74] For example, companies can currently self-certify compliance with the DNSH principle.

procedure continue to maintain the promised environmental benefits without compromising the safety and efficacy of the drug.

Regarding data protection and market exclusivity, if the current levels of data protection are maintained and compensation mechanisms implemented for companies that make their data 'open' for public research purposes, a good balance could be achieved between protecting R&D investment and market access for competing products that can offer lower prices and greater accessibility.

In sum, environmental considerations should be integrated in a way that supports rather than hinders the primary goal of providing safe and effective drugs to patients in need. Special consideration should go particularly to the medium- to long-term effects of these measures so that they do not lead to less environmental sustainability of the pharmaceutical market if it is partially depleted of private investments in R&D for green drugs.

The Energy Performance of Mixed-use Buildings in Italy and in the United States. Treatment Criteria and Tools for Financing Energy Adaptation

Karina Zabrodina*

Abstract

The paper analyses the legal issues related to the treatment of mixed-use buildings in light of the Energy Performance of Buildings Directive. For this purpose, criteria such as the building's ownership and destined use (used in Italy) and the criterion of separation (used in the United States) are considered. A study is included of European and national case law developed with regard to mixed contracts. Finally, the paper explores the buildings' energy efficiency framework in the United States and suggests tools that might be used for financing energy adaptation.

Keywords

Energy Performance of Buildings, Mixed-use Buildings, Treatment Criteria, IECC, ASHRAE Standards, Financing Energy Adaptation.

I. The Energy Performance of Buildings Directive between Neutrality Goals and Duties

The 'collective achievement of the climate-neutrality objective'[1] is no longer just a political commitment, but becomes a binding obligation since the protection of people's rights depends on it. Arts 1 and 2 of the European Climate Law define climate neutrality as an 'objective'. However, if one looks at climate neutrality through an axiological and functional perspective, which focuses on the fundamental values and existential interests to be protected (health, life, security, environmental quality), its

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[1] Art 2 of the European Parliament and Council Regulation 2021/1119/EU of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law') [2021] OJ L243/1.

legal relevance can be understood.[2] This consists of a 'positive obligation'[3] for the European Union and its Member States to adopt any necessary measure to mitigate and prevent the adverse effects of climate change, thus including the reduction of emissions to net zero by 2050, with the aim of ensuring people effective protection.

In this scenario, the buildings sector is one of the many parts of the global sustainability project, which has been outlined by the United Nations Agenda 2030 and imposed due the dramatic consequences of climate change.[4] In fact, it has a significant impact on the path towards climate neutrality as buildings are a key contributor to energy consumption and greenhouse gas emissions.[5] This pushed the European legislator to redesign the current regulatory framework on the energy performance of buildings by providing for new duties for Member States.[6]

For this purpose, the revised Energy Performance of Buildings Directive (EPBD) acts at the same time on two fronts. It provides for different measures, obligations, and deadlines for new and existing buildings, basing the choice on the distinction between public and private, and residential and non-residential ones.

Starting from new buildings (Art 7 EPBD), these, if owned by public bodies, must be zero-emission from 2028. All others, namely privately owned new buildings, will have to comply with new energy standards from

[2] On the notion of 'interest' as a result of legal assessment, see E. Betti, 'Interesse (Teoria generale)' *Novissimo Digesto italiano* (Torino: Utet, 1962), VIII, 838-840. The importance of adopting an interpretative methodology based on the functional, axiological, and systematic analysis of the law and legal acts is highlighted by Id, *Interpretazione della legge e degli atti giuridici. Teoria generale e dogmatica* (Milano: Giuffrè, 1971) and P. Perlingieri, 'L'interpretazione della legge come sistematica ed assiologica. Il broccardo *in claris non fit interpretatio*, il ruolo dell'art. 12 disp. prel. c.c. e la nuova scuola dell'esegesi' *Rassegna di diritto civile*, 990 (1985).

[3] The existence of States' 'positive obligations' concerning climate change has been recently affirmed by the European Court of Human Rights in the climate change litigation case Eur. Court H.R. (GC), *Verein KlimaSeniorinnen Schweiz and Others* v *Switzerland*, Judgment of 9 April 2024. The judges recognized that States enjoy wide discretion, but this does not exempt them from compliance with the duties of effectively implementing the mitigation and prevention measures under the European Convention on Human Rights and pursuant to the Paris Agreement.

[4] See the latest Synthesis Report 'Climate Change 2023' of the Intergovernmental Panel on Climate Change available at www.ipcc.ch.

[5] According to the European Environment Agency Indicators (available at www.eea.europa.eu) and the European Commission data on energy efficiency in buildings (available at www.commission.europa.eu), in the European Union, buildings are responsible for 35% of energy-related emissions and 40% of energy consumption. So, a reduction of these levels is crucial to successfully achieve by 2050 the climate-neutrality objective set in European Parliament and Council Regulation 2021/1119/EU.

[6] The new regulatory framework is defined by the European Parliament and Council Directive 2024/1275/EU of 24 April 2024 on the energy performance of buildings [2024] OJ L series and Directive 2023/1791/EU of 13 September 2023 on energy efficiency [2023] OJ L231/1.

2030. Meanwhile, before the established deadlines, States must adopt measures to ensure that all new buildings are at least 'nearly' zero emission (Art 2 EPBD) and public bodies which intend to occupy a not-owned new building will have to prefer them.

As regards existing buildings (Arts 8 and 9 EPBD), the legislative framework is even more complex since it requires an in-depth assessment of features of the existing building stock,[7] geography, climate, and costs[8] to gradually reduce the energy performance thresholds of non-residential buildings (under 16% from 2030 and 26% from 2033) and residential ones (by decreasing the average primary energy use by at least 16% by 2030 and 20-22% by 2035). Moreover, each Member State is being called on to establish a national building renovation plan (Art 3 EPBD), which should include further national targets to achieve the lower maximum energy performance thresholds by 2040 and 2050.[9]

In both cases, the compliance of States and owners will be checked through the energy performance certificate (Arts 19 and 20 EPBD), which will keep track of the energy class of the building. Although the Directive is addressed to the Member States, making them responsible for achieving the set goals, provisions on the certificate reveal that the buildings' adaptation to new energy standards becomes a duty also for private owners. This arises through the obligation to show the certificate proving the energy class to the potential buyer or tenant and the legal consequences if no certificate is shown, or if no adaptation is made.[10]

[7] The European legislator leaves the decision on whether or not to apply the minimum energy performance standards to certain heritage buildings to the discretion of Member States. In Italy alone, among other European States, the building stock consists to a large extent of heritage buildings. This makes Italian compliance with the EPBD goals and duties more difficult since the choice of whether or not to exempt a building from the efficiency process will have to face economic, legal and administrative challenges.

[8] As highlighted by E. Baldoni et al, 'From Cost-optimal to Nearly Zero Energy Buildings' Renovation: Life Cycle Cost Comparisons under Alternative Macroeconomic Scenarios' 288 *Journal of Cleaner Production*, 1 (2021), there is a big 'investment gap between Cost-Optimal (CO) solutions, that are more economically convenient, and nearly Zero Energy (nZE) solutions, which have the lower energy consumption'. This results from the high costs of investments for building renovation that are needed to achieve 'greater energy savings'. It follows that policymakers are required to adopt financial and legislative measures capable of guiding investors towards not only more economically convenient, but above all more energy efficient solutions.

[9] The different deadlines to deploy solar energy installations on existing public and non-residential buildings can be mentioned among these (Art 10 EPBD).

[10] The EPBD does not provide for specific sanctions. Each State will be able to decide on the possible legal effects of certificates in accordance with national rules (Art 20, para 7) and, therefore, to provide for more or less strict sanctions for breaching the obligation to disclose the certificate or for cases of its invalidity. Following these considerations, it is clear that the Directive designs the adaptation to new energy standards as an obligation which, if not fulfilled, might produce both legal and economic effects in terms of the validity of a contract and the loss of value of the property on the market. The latter effect

II. Outlining the *Quaestio Iuris*

The brief overview of the Directive shows the ambitious roadmap full of obligations and responsibilities which clearly impact on domestic law, its categories and institutes. Property and negotiating autonomy, traditionally considered the highest expression of individual freedoms, are directly affected by sustainability and climate-neutrality duties and are required to reshape underlying legal relationships[11] in accordance with them.[12] Thus, the duty to make buildings energy efficient and the obligation to attach to the sale or lease contract the energy performance certificate intersect with the property's function and with contractual validity.[13]

Following these considerations, the focus of the paper is on the domestic legal implications of such an interaction through an analysis of so-called 'mixed-use' buildings. Given the lack in Italy of any regulatory framework, interpretative questions arise about their treatment in implementing the EPBD, especially if one considers that a single building, or even a unit, may be destined for different uses and that such uses may

undoubtedly represents the significant price for the real estate market and for banks of the application of new building rules whose economic impact must be properly managed and mitigated over time. On the economic effects of the previous European legislative framework on buildings' energy performance, see E. Fregonara et al, 'The Impact of Energy Performance Certificate Level on House Listing Price. First Evidence from Italian Real Estate' 65 *AESTIMUM*, 143-163 (2014).

[11] This confirms the far-sighted intuition of P. Perlingieri, *Introduzione alla problematica della «proprietà»* (Camerino-Napoli: Edizioni Scientifiche Italiane, 1970), who over 50 years ago suggested considering property as a legal relationship that from the structural point of view is configured as a relationship between opposing centres of interests, while from the functional side it can be seen as the regulation of such interests.

[12] The impact on legal categories and institutes of 'ecologism', which protects the environment 'as a function of preserving the human species and the living conditions', is highlighted by E. Caterini, 'Iniziativa economica privata e "crisi ecologica". Interpretazione anagogica e positivismo', in G. Perlingieri and E. Giorgini eds, *Diritto europeo e legalità costituzionale a trent'anni dal volume di Pietro Perlingieri. Atti dell'Incontro di Studi dell'Associazione dei Dottorati di Diritto Privato, 9-10 settembre 2022* (Napoli: Edizioni Scientifiche Italiane, 2024), 273-362. As regards the relation between environmental interest and the contract, see M. Pennasilico, 'Contratto ecologico e conformazione dell'autonomia negoziale' *Giustizia civile*, 809-835 (2017).

[13] This was well highlighted in the presentation held by E. Caterini on environmental sustainability and civil relationships during the 17th national conference *Cambiamento climatico, sostenibilità e rapporti civili* organized by Società Italiana degli Studiosi di Diritto Civile in Rome on 11 January 2024. The author points out that currently the obligation to attach the energy performance certificate to the sale or lease contract is only relevant to the assessment of the exact fulfilment of the contractual performance or to contractual defects such as error or deliberate deception (see Corte di Cassazione 16 May 2022 no 15577 and 9 August 2022 no 24534, *Giustizia Civile Massimario* (2022)). However, according to his opinion, the 'energy efficiency first' principle and the EPBD's obligation to adopt new energy standards may directly affect the 'lawfulness of the object of a contract', making the energy performance certificate 'an element of its validity'.

at the same time satisfy different interests and purposes of the owner. Therefore, particular attention is paid to criteria that can be applied to mixed-use buildings, also in light of European and national case law developed with regard to mixed contracts. Finally, in a comparative perspective, the paper explores the buildings' energy efficiency framework in the United States and suggests tools that might be used for financing energy adaptation according to the EPBD.

III. Mixed-use Buildings. The Ownership and Destined-use Criterion

The EPBD establishes different goals and deadlines according to the ownership criterion (public and private buildings) and to the destined-use criterion (residential and non-residential buildings). However, the building stock also includes mixed-use buildings, whose treatment is entirely left by the European legislator to the discretion of each State (Recital 34 EPBD). The question arises about how cases should be managed such as those in which: (a) a building includes both residential and non-residential units; (b) a residential unit is used for business activity; (c) a building or a residential unit is bound by a building convention?[14] Which criterion must be followed by States to decide whether to treat such buildings as residential or non-residential?

Following the ownership criterion, in case (a), the residential units might be treated as non-residential units and vice versa because of the private or public property of the whole building or some units, regardless of their specific use. This is the case of a building constructed and owned by a construction company that leases units both for residential and non-residential purposes. This is still the case of a building composed of private residential units and public non-residential units intended for institutional purposes or leased to a private individual for business activities. In these non-exhaustive examples, the States' choice will likely be based on the owner, either a private company, a private individual, or a public body. The

[14] Note that the case under letter (c) is extremely interesting as it involves a complex legal relationship between the private builder and the public body in which parties agree on the builder's right to construct on public ground (the so-called '*convenzione in diritto di superficie*') or on the ground transferred to him by a public body (the so-called '*convenzione in piena proprietà*') in return for limits that the builder must bear (temporary impossibility to sell the construction, imposed prices in the case of selling or lease) and obligations to fulfil (eg, urbanization, construction of an adjacent road or additional car parks, the implementation of public lighting). Its relevance to the topic derives from the fact that the legal relationship between the private builder and the public body is characterized by a mixture of patrimonial and non-patrimonial interests, which goes beyond the ownership of the assets and leads to different conclusions depending on assessment according to the ownership or destined-use criterion.

same considerations can be extended to other cases in which, therefore, the measures and deadlines will apply that are provided for the residential and non-residential sector, given the private individual's ownership in case (b), and the private builder's ownership in case (c).[15]

On the other side, following the destined-use criterion, another choice might be made on the basis of the concrete use of the building or its units and, therefore, the specific interest satisfied by that use. Thus, in case (a), preference may fall on treating a building as a residential one to allow the unit's owners to benefit from longer deadlines and appropriate financial measures to adapt their properties to new energy performance standards. This should be done taking into account the existential dimension of the right to housing[16] realized by residential constructions and also the particular attention paid by the EPBD to vulnerable households.[17] According to such hermeneutical methodology based on the functional and axiological reading of the property,[18] it is possible to reach the same conclusion in case (c). In the latter case, the legal relationship between the private builder and the public body resulting from the building convention realizes at the same time the builder's patrimonial interests to construct, lease or sell under specifically imposed conditions, and the public body's interest to ensure people the existential right to housing through social housing. It seems reasonable, then, to apply more favourable rules referring to residential buildings. By contrast, a different conclusion can be reached in case (b) in which the choice to treat a residential building or unit used for business or professional activity as a non-residential one may precisely come from the patrimonial nature of the activity carried out. Although the choice might seem easy, especially if it deals with a single-family building, its complexity arises in all those cases in which, for example, the unit used for business purposes is part of a residential condominium building. Hence, the discussion turns to the initial question: which criterion must be followed by States to decide on how to treat such buildings?

IV. The Italian 'Superbonus 110%' Case. Mixed-use Buildings, Fiscal Incentives and Rule of Prevalence

[15] See n 14 above.

[16] 'The legal relevance of "home", not just as an economic value, but also as an affective one', which derives from Art 8 ECHR, is well highlighted by L. Vicente et al, 'Beyond Lipstick and High Heels: Three Tell-Tale Narratives of Female Leadership in the United States, Italy, and Japan' 32 *Hastings Women's Law Journal* 3, 12-17 (2021).

[17] 'That are particularly exposed to high energy costs and that lack the means to renovate the building that they occupy'. Art 2, point (28) EPBD.

[18] P. Perlingieri, n 11 above.

As can readily be understood, the question is justified by the fact that for the purpose of identifying the most suitable domestic rules and measures to comply with the charted roadmap, preference for the ownership or the destined-use criterion can lead to different scenarios. The mentioned cases show that a building and even a unit can serve several interests, patrimonial and existential, which often coexist. Consequently, their effective protection may depend on the choice of whether to treat the relevant building or unit as a residential or non-residential one.

At this point, there are two intermediate considerations. On one hand, it is clear that the ownership criterion should be avoided as it does not look at the specific use of the building or unit.[19] Therefore, this does not make it sufficiently appropriate to protect the owner's interests or to grade them to find the most suitable and effective case discipline.[20] On the other hand, the destined-use criterion seems to be insufficient, too, because, as case (b) shows, its application will lead to the automatic qualification of a residential unit used for business or professional activity as a non-residential one, without considering that such use might also serve personal or non-patrimonial interests. This underlines the necessity to continue analysing the issue at a deeper level in which the destined-use criterion is combined with an investigation on the interests and purposes pursued by a specific use.

On closer inspection, the choice on how to treat a mixed-use building or unit not only affects the time profile, namely the shorter or longer deadline to align buildings with the new energy standards, but also impacts on the financial profile in terms of individuals' economic capacity and access to measures to face energy adaptation costs. The Directive generally provides for Member States to adopt financing and support measures, such as funds, fiscal incentives, subsidized loans, contractual tools, to facilitate the building transition towards zero-emission (Art 17 EPBD). With regard to the scope of such measures, no difference is made between public or private buildings or between their use, for residential or for business

[19] The insufficiency of the ownership criterion is underlined by P. Perlingieri, *Il diritto civile nella legalità costituzionale secondo il sistema italo-europeo delle fonti* (Napoli: Edizioni Scientifiche Italiane, 4th ed, 2020), III, 274 and 277. The author considers this criterion static and, therefore, proposes a functional approach based on the destined use of a good, the only one capable of enhancing the social function and the utility expressed by a good. This perspective is also adopted with regard to the 'category of commons' by G. Perlingieri, 'Criticità della presunta categoria dei beni c.dd. "comuni". Per una "funzione" e una "utilità sociale" prese sul serio' *Rassegna di diritto civile*, 136-163 (2022).

[20] The decision of Corte di Cassazione 17 luglio 2017 no 17683 is an example of the inadequacy of the ownership criterion. The High Court was called to decide on the false application of the cadastral provisions for a building owned by a private entity that had been rented to the municipality and used for public offices. It was stated that solely private ownership was not sufficient to qualify the building as intended for commercial use as the concrete use of the building would need to be assessed.

purposes. It follows that each State will have to coordinate financial measures with choices of treatment of the mixed-use buildings and units because the application of the former will also depend on the latter.

The need of harmonization is well highlighted by the Italian 'Superbonus 110%'[21] case, which raised some critical issues in applying fiscal incentives to mixed-use buildings. This tax benefit allowed individuals to deduct 110% of expenses for energy efficiency interventions, including the installation of photovoltaic systems and infrastructure for charging electric vehicles. The issue arose in connection with condominiums used for both residential and business purposes, especially whether to apply or not the tax benefit provided for individuals also to those who use the building units, part of a condominium, for professional or commercial activity. The case was solved by the Revenue Agency ('Agenzia delle Entrate') according to the prevalence rule based on the building's use.[22] In particular, on one hand, the exclusion from the scope of the tax benefit of buildings used entirely for business activities was confirmed.[23] On the other, it was decided that in the case of interventions made on common parts of a residential condominium, which includes non-residential units too, owners of the latter would be allowed to deduct costs linked to common parts if this type of unit covered less than 50% of the total area of the building. In the case where non-residential units were over the mentioned percentage, only owners of residential units would be able to benefit from such tax measure by deducting expenses incurred on common parts.

As shown in the Superbonus 110% example, the rule of prevalence of residential units or non-residential ones in a condominium was used as a decisive criterion to establish when also the owner of a non-residential unit would be able to benefit from the fiscal measure. However, its concrete application led to situations with a differentiated treatment[24] of the same

[21] Established in Art 119 of decreto legge 19 May 2020 no 34. Currently, legge di bilancio 2022 has extended the possibility to benefit from such measure by reducing, however, to 70% (in 2024) and 65% (in 2025) the amount of eligible costs.

[22] See Agenzia delle Entrate, Circolare 8 August 2020 no 24/E and Circolare 22 December 2020 no 30/E.

[23] An example in this perspective is the decision of Corte di giustizia tributaria di primo grado Friuli-Venezia Giulia Trieste 11 April 2023 no 81. The Italian tax judges considered as 'fiscal avoidance' and 'abuse of law' the case in which a company (the owner of the whole building) established a condominium through the donation of some units to private individuals only to benefit from the Superbonus incentive.

[24] This critical aspect of the rule of prevalence has already been highlighted with regard to whether and when it is possible to apply consumer law to a condominium. See G.A. Chiesi and M. Sturiale, 'Condominio: "essere o non essere" (consumatore)?' *Immobili & proprietà*, 493, 498 (2020). The authors argue that in some cases the application of the rule of prevalence may bring benefits to persons or organizations which 'under normal conditions' would be excluded by law.

type of unit (non-residential) solely depending on its location, in a residential or non-residential building, and its size, above or under 50% of the total building's area. Thus, to date in Italy there are units that do not differ in terms of their use but whose owners in some cases were allowed the fiscal benefit and in some others not.

For the purpose of transposing the EPBD, this case makes evident, therefore, that Member States like Italy, which miss a regulation of mixed-use buildings, are required to carefully assess, not only the criterion that will be used to qualify a mixed-use building or unit as a residential or non-residential one, but also the effects, in terms of their reasonableness, that the choice might produce, especially in relation to other measures.

V. European and Italian Case Law Concerning Mixed Legal Relationships. From 'Prevalence' and 'Marginality' to Assessment of Interests and Purposes of Use

The rule of prevalence used by the Revenue Agency, which looks from a functional point of view at the specific destined use of a building and unit, is not new to European and national case law. Starting from the *Gruber* case,[25] which was among the first to address the issue of a person purchasing goods intended for purposes which are in part within and in part outside the person's trade or profession (the so-called 'mixed contract'), its application has been extended from consumer contracts to cases concerning condominiums, property, and even disputes on tax assessment.

Thus, in a case relating to the purchase of a smartphone by a lawyer, the Italian Corte di Cassazione pointed out that a person who buys a good for mixed-use can only be considered a consumer if the professional use is marginal.[26] In another case, the notion of consumer was applied relating to a condominium on the basis that the building in question is mainly composed (according to the rule of prevalence) of units owned by natural

[25] Case C-464/01 *Johann Gruber* v *Bay Wa AG*, Judgment of 20 January 2005, available at www.eur-lex.europa.eu. For some considerations on this case, see V. Crescimanno, 'I "contratti conclusi con i consumatori" nella Convenzione di Bruxelles: autonomia della categoria e scopo promiscuo' *Europa e diritto privato*, 1135 (2005); R. Conti, 'La nozione di consumatore nella Convenzione di Bruxelles I. Un nuovo intervento della Corte di giustizia' *Il Corriere giuridico*, 1384 (2005); J. Vannerom, 'Consumer Notion: Natural or Legal Persons and Mixed Contracts', in E. Terryn et al eds, *Landmark Cases of EU Consumer Law: In Honour of Jules Stuyck* (Cambridge: Intersentia, 2013), 57.

[26] See Corte di Cassazione 17 February 2023 no 5097, commented by C. Marseglia, 'Statuto giuridico del professionista consumatore nei rapporti giuridici a scopo misto' *I Contratti*, 380-390 (2023); E. Bacciardi, 'Lo statuto eurounitario degli atti di consumo con scopo promiscuo. Distingue frequenter' *Rivista di diritto civile*, 148-173 (2024).

persons who use them for non-professional purposes.[27] And yet, in the field of taxation, a notice of tax assessment was considered 'legitimate' in a case where the assessment was based on evidence found – during a search carried out without the Prosecutor's authorization – in a car owned by the taxpayer but assigned to an employee for mixed-use (both work and private life), which was located during working time in the company's parking space.[28]

Since its first decisions, which as it is seen were followed accurately by Italian judges, the European Court of Justice supported the rule of prevalence with the 'criterion of marginality' of the professional use to identify those mixed legal relationships mainly marked by a non-professional activity. However, given the difficulty of identifying a clear distinction between personal and professional interests,[29] the rigidity and insufficiency of such a line of interpretation soon emerged. For instance, in the matter of condominium/consumer law, the unsuitability of the rule of prevalence with regard to the mutability of the composition of a condominium[30] and equal treatment[31] was highlighted. On the other hand, the need was seen to stop not only at the nature of use of a specific good but also to assess the underlying interests and those which characterise the mixed legal relationships.[32]

This change in the hermeneutic approach, which looks from a qualitative point of view at the purpose of the use, can be found in recent European decisions.

In particular, in the *Schrems* case,[33] a specific purpose of the mixed contract, consisting of the protection of consumers' rights, was enhanced.

[27] See Tribunale di Milano 26 November 2020. The national decision follows Case C-329/19 *Condominio di Milano, via Meda* v *Eurothermo SpA*, Judgment of 2 April 2020, available at www.eur-lex.europa.eu, commented by J.-D. Pellier, 'L'extension de la protection contre les clauses abusives' 4 *Revue des contrats*, 75-77 (2020); G. De Cristofaro, 'Diritto dei consumatori e rapporti contrattuali del condominio: la soluzione della Corte di giustizia UE' *Nuova giurisprudenza civile commentata*, 842 (2020).

[28] See Corte di Cassazione-Sezione tributaria 24 November 2021 no 36474, *Giustizia Civile Massimario* (2021), in which the judges considered the car as being used for work purposes at that specific time.

[29] L. Ruggeri, 'Nozione di consumatore e contratti con duplice scopo' *Quaderni della Società Italiana degli Studiosi del Diritto Civile* (forthcoming).

[30] A. Celeste, 'Il condominio diventa "consumatore" sia pure solo se le unità immobiliari dell'edificio risultino prevalentemente di proprietà di persone fisiche' *IUS Condominio e Locazione*, 11 January 2021.

[31] R. Calvo, 'Complessità personificata o individualità complessa del condominio-consumatore' *Giurisprudenza italiana*, 1320-1327 (2020).

[32] L. Ruggeri, n 29 above.

[33] Case C-498/16 *Maximilian Schrems* v *Facebook Ireland Limited*, Judgment of 25 January 2018, available at www.eur-lex.europa.eu. On this case, see T. Lutzi, '"What's a Consumer?" (Some) Clarification on Consumer Jurisdiction, Social-Media Accounts, and Collective Redress under the Brussels la Regulation: Case C-498/16 Maximilian Schrems

The European judges extended the nature of a consumer to an individual who used a private account also for his professional activity by establishing that 'activities of publishing books, lecturing, operating websites, fundraising and being assigned the claims of numerous consumers for the purpose of their enforcement do not entail the loss of a private Facebook account user's status as a "consumer"'.

With regard to mixed-use buildings, the interpretative solution that considers the concrete purpose for which a unit is used was adopted in a case concerning the issue of applying consumer law to a natural person who uses the apartment both for personal and professional purposes.[34] The Court of Justice stated that 'the situation in which a natural person uses the apartment constituting his or her personal home for professional purposes also, such as in the context of salaried teleworking or in the exercise of a liberal profession, cannot be excluded from the scope of the concept of "consumer"'.

For their part, national decisions also go in the same direction.

Thus, the High Court specified that the fact that a building regulation only allows residential use of its units does not automatically exclude the possibility for the unit's owner to use it also for professional purposes. In each concrete case, indeed, it is necessary to assess whether the residential use can include mixed uses which are compatible with 'housing functions'.[35]

Focus on the personal dimension of the professional activity's purpose was made in another interesting decision, too, which concerns so-called 'mixed debt' (*indebitamento promiscuo*).[36] The point of the dispute was whether an individual willing to restructure debts relating to personal and family needs and partially to his business and professional activity should be granted the consumer plan. Thanks to the functional approach, through which an accurate assessment was made of the existential interests to be satisfied by the consumer plan, the judges at first instance made an extensive reading of the notion of consumer to include the individual liable for mixed debts on the assumption that the existence of business and professional debts alone cannot deprive the individual of the possibility to protect his personal and family interests affected by the state of insolvency.

v. Facebook Ireland Limited' 25 *Maastricht Journal of European and Comparative Law*, 374-381 (2018).

[34] Case C-485/21 *'S.V.' OOD* v *E. Ts. D.*, Judgment of 27 October 2022, available at www.eur-lex.europa.eu.

[35] Corte di Cassazione 5 July 2019 no 18082.

[36] Tribunale di Brescia 12 November 2022 no 2741 commented by C. Ravina, 'L'indebitamento "promiscuo" dà accesso alla ristrutturazione dei debiti del consumatore?' *IUS Crisi d'Impresa*, 13 June 2023.

VI. A Look at the United States. IECC, ASHRAE Standards and the Criterion of Separation

As pointed out, in Europe the new Energy Performance framework is to be transposed by 2026 and will be gradually implemented within at least the next 20 years to comply with the target enshrined in Union law of economy-wide climate neutrality by 2050. Member States are free to decide how to treat mixed-use buildings and units. These are an important part of the building stock, so much so that, in Italy, the need has arisen to clarify several concerns especially from the fiscal perspective (see Section IV). Given the impact of mixed-use buildings on tax-incentive policies, but also the difficulties that may arise among the owners of units in a condominium in managing energy performance-related choices,[37] the States' decision should then consider the adoption of specific measures and benefits to facilitate the path in achieving the climate neutrality goal (highly energy-efficient, decarbonised and zero-emission buildings) of such a type of buildings, too.

A different approach towards buildings' energy efficiency is used in the United States. Unlike the European Union, there is no federal net-zero legislation.[38] In line with the Paris Agreement, a greenhouse gases reduction target (50-52% by 2030) has been set in the Nationally Determined Contribution.[39] Furthermore, a Long-Term Strategy towards net-zero emissions by 2050 has been adopted.[40] Within these commitments, however, States are free to enact their own policy, as in the case of buildings' energy efficiency. The regulation on energy performance of both residential and commercial buildings is in fact mainly entrusted to each State of the Federation that is called upon to adopt the Energy Code to improve year by year energy efficiency, to reduce emissions, and save consumer costs.[41]

Despite the differences in the adopted energy standards,[42] what ensures a minimum level of harmonization between State regulations are

[37] F.G. Viterbo, *Variabilità e relatività dei rapporti condominiali. Proprietà, persone, "gruppo"* (Napoli: Edizioni Scientifiche Italiane, 2021).

[38] L. Delta Merner et al, 'Comparative Analysis of Legal Mechanisms to Net- zero: Lessons from Germany, the United States, Brazil, and China' 15 *Carbon Management* (2024), available at https://doi.org/10.1080/17583004.2023.2288592.

[39] Available at https://unfccc.int/sites/default/files/NDC/2022-06/United%20States%20NDC%20April%2021%202021%20Final.pdf.

[40] Available at https://www.whitehouse.gov/wp-content/uploads/2021/10/us-long-term-strategy.pdf.

[41] For more, see the Building Energy Codes Program created by the U.S. Department of Energy's Building Technologies Office, available at www.energycodes.gov.

[42] According to the data of the Building Energy Codes Program (available at https://www.energycodes.gov/state-portal), currently there are States such as, for example, among others, Connecticut, Illinois and New Jersey that have adopted the IECC

the American Society of Heating, Refrigerating and Air-conditioning Engineers Standards (ASHRAE 90.1) and the 2021 International Energy Conservation Code (IECC) which are used by States as a model for their Energy Codes.[43] Both establish minimum energy conservation and efficiency requirements, but they differ in their scope. The IECC model is used for residential Codes, while the ASHRAE for commercial ones.

Unlike the European EPBD that leaves the choice on mixed-use buildings to the Member States, in the 2021 IECC the choice is made ex-ante whereby such buildings must at the same time comply with rules provided for both residential and commercial buildings. In other words, in the United States, the issue on how to treat mixed-use buildings has not been left to the States' discretion since the choice falls on the criterion of separation to be applied in Federal States through Energy Codes.

It is interesting to note that such international standards make a particular choice in relation to the qualification of residential and commercial buildings. Among the first, only one-and-two-family dwellings and multi-family three-storey dwellings or less are included. Multi-family four-storey buildings and greater are treated instead like commercial buildings. Furthermore, from the point of view of use, residential buildings are a broad category that includes occupancies containing 'sleeping units' where the occupants are transient or permanent in nature such as boarding houses, hotels, dormitories, monasteries, assisted living and social rehabilitation facilities and so on.[44]

VII. Conclusion. The Treatment of Mixed-use Buildings and Tools for Financing the Energy Adaptation

In the United States the application of IECC and ASHRAE standards to mixed-use buildings follows the criterion of separation. Thus, their energy performance requirements depend on the building's legal qualification, its use and size. These characterizing elements must be

2021 for residential buildings. At the same time, however, there are other States that are still at the IECC 2009 (Kentucky) or have not yet adopted any State-wide Energy Code (Mississippi). See K.A. Kellogg and N. La Cumbre-Gibbs, 'The Impact of State Level Residential Building Code Stringency on Energy Consumption in the United States' 278 *Energy & Buildings* (2023).

[43] In the field of green construction, the 2021 International Green Construction Code (IGCC) represents another model, already adopted by many Federal States, which provides for guidelines to improve the sustainability and environmental performance of buildings' design, construction and operation. As a result of a public-private partnership, the IGCC was elaborated to be used in coordination with the IECC and ASHRAE standards.

[44] The occupancy classification is provided by the International Building Code (IBC 2021) available at https://codes.iccsafe.org/content/IBC2021P2.

combined to identify in the configuration of each specific building the energy standards applicable to residential and commercial parts.

In the European Union, since each State will choose how to treat mixed-use buildings, under this specific profile the implementation of the new Directive will not be harmonized. The choice may fall on their treatment as residential or non-residential buildings or on their separate treatment according to the approach of the United States. In the first two cases, criteria like those of ownership and destined use may be exploited. However, as evidenced in previous sections, the ownership criterion only makes a formal assessment of the owner of the property. This highlights the limit of the ownership criterion consisting of the inability to grasp the dynamic profile of the property to be identified with the use and function for which it is intended. To avoid unequal treatment and to enhance the property relationship from the substantial point of view, the application of the destined-use criterion seems to be more suitable. However, such a criterion, whose application is mostly based on the rule of prevalence, should be integrated with a deeper analysis of interests and purposes for which the implementation of the use of a building or unit is intended. This approach is clearly more complex from the practical side, but it might be more effective, inclusive and reasonable in terms of protection, as is shown by the analysed European and national case law.

There are at least two reasons for the need to place attention on the treatment criteria of mixed-use buildings. On one hand, sustainability, as a pathway towards the protection and enforcement of fundamental rights, significantly affects its perception by institutions, societies and private individuals. Its impact on law and sources is strengthening the collective dimension of the ecological transition[45] by requiring all actors to perform specific duties. Its impact on legal categories like property is strengthening once again its dimension of solidarity[46] by requiring States to adopt policies and measures to achieve the climate-neutrality goals, and builders and owners to 'cooperate'[47] in the energy adaptation of buildings. On the

[45] B.L. Boschetti, 'Oltre l'art. 9 della Costituzione: un diritto (resiliente) per la transizione (ecologica)' *DPCE online*, 1153-1164 (2022).

[46] The property's dimension of solidarity which requires the owner to adopt specific conduct and to comply with duties has already been well highlighted in the field of cultural heritage where owners are required to preserve and enhance the cultural value of the building also for the benefit of third parties and future generations. See F. Longobucco, 'Beni culturali e conformazione dei rapporti tra privati: quando la proprietà "obbliga"', in E. Battelli et al eds, *Patrimonio culturale. Profili giuridici e tecniche di tutela* (Roma: RomaTre-Press, 2017), 211-226, and with specific focus on the 'duty of enhancement' K. Zabrodina, 'La valorizzazione degli immobili culturali tra vincoli espropriativi e strumenti cooperative alternativi' *Teoria e prassi del diritto*, 335-354 (2023).

[47] The duty to cooperate is an expression of overcoming the individualistic idea of property in favour of the relational perspective and is justified by the principle of solidarity: P. Perlingieri, n 19 above, 281-282.

other hand, however, such new duties certainly have costs to be borne by both States and private individuals, thus affecting the public budget and individuals' economic capacity in bearing the costs of energy adaptation.

It follows that, whatever the States' decision on whether to treat mixed-use buildings as residential or non-residential ones, or separately, the uncertainty about funding measures and fiscal incentives (as evidenced in the Italian 'Superbonus 110%' case) strengthens the need to consider also other tools for financing the transition towards a net-zero building stock. Among those that stand out are the negotiating tools which are capable of combining the public and private sector (including institutions, local bodies, enterprises, investors, non-profit organizations and individuals) such as public-private partnerships, energy saving performance contracts, green bonds, social impact investing, and power purchase agreements.

The advantage of such tools lies in the possibility to diversify funding sources and to include as beneficiaries, in energy efficiency projects, all types of buildings: residential, non-residential and mixed-use ones. Other advantages lie in the opportunity for public bodies to register some of these contracts off-balance sheet.[48] In this perspective, private-public partnerships and energy saving performance contracts, which are spreading in Italy thanks to the recent reform of the regulation on public contracts,[49] are particularly suitable for buildings partially intended for institutional purposes or social housing. On the other side, green bonds and power purchase agreements, whose use is consolidated in the United States,[50] seem to be attractive for financing the energy adaptation of mixed-use condominiums which include both residential and commercial units. Such tools may be a valuable alternative both for covering the entire cost of the operation and for integrating costs which are not covered by State fiscal or funding measures.

[48] See the 2022 Manual on Government Deficit and Debt published by Eurostat in January 2023 with regard to the registration of public-private partnerships and energy performance contracts.

[49] Decreto legislativo 31 March 2023 no 36.

[50] See https://betterbuildingssolutioncenter.energy.gov where several USA case studies applying energy performance financing tools can be found. In the European Union, the spread of green bonds and power purchase agreements is still rather small due to their recent regulation (European Parliament and Council Regulation 2023/2631/EU of 22 November 2023 on European Green Bonds and optional disclosures for bonds marketed as environmentally sustainable and for sustainability-linked bonds [2023] OJ L series; European Parliament and Council Regulation that has recently been approved by the Council at the third reading and that will improve the Union's electricity market design).

Toward a New and Sustainable Era of the Building Sector: Building Information Modelling (BIM)

Manuel Ignacio Feliu Rey*

Abstract

This paper outlines the importance of sustainability as a determining criterion to be considered in the application of new technologies in the building sector and in the introduction of new agents and actors in the building process. BIM technology enhances both quality and sustainability in building because of the management of shared information in real time and its constant updating. It is estimated that BIM will contribute to sustainability in the building sector, with an estimated 15% reduction in waste volume and a 57% reduction in waste management costs.

Keywords

Sustainability, Building Information Modelling BIM, Construction, Sustainable Facility Manager, Lean Manager, ISO 19650.

I. Introduction[1]

This paper outlines the importance of sustainability as a determining criterion to be considered in the application of new technologies in the building sector and in the introduction of new agents and actors in the building process. To this end, it is important to bear in mind that the result of building activities (now referred to as an 'asset')[2] is dynamic and extends far beyond the completion and delivery of the constructed building. On the

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[1] This work is the result of collaboration between two research projects: ESCOP4Green ('Enhancing Sustainable Consumption and Production for the Green Transition'), an EU funded project (Next Generation) led by Professor Lucia Ruggeri (University of Camerino, Italy), and the National Research Project of Knowledge Generation IAREDI ('Artificial Intelligence and its impact on the real estate construction sector' (PID2021-124961NB-I00), funded by the Spanish Research Agency and led by Prof. Remedios Aranda and myself, both at the University Carlos III of Madrid (Spain). This work is an outcome of the research presented in New York in 2024 and Vienna 2023.

[2] This is the terminology used and consolidated by ISO 19650, the international standard for managing information throughout the lifecycle of a built asset using building information modelling.

contrary, the life of an asset begins long before design and building commence, and its life continues well beyond the handover of the building to the client, the new owner. This new dimension has led to the emergence of new players in the building industry and new methodologies. Moreover, in this last decade, different players and stakeholders in the building business (both traditional and emerging players) have experienced a profound shift in their relationship. This new way of working is extremely narrow, collaborative, digital, global, and ubiquitous. In few words: a more flexible, dynamic, and 360° vision of different problems and solutions. This not only facilitates real-time problem-solving but also enhances capacity to predict and address potential issues – immediate, future, or hypothetical – by applying state-of-the-art solutions. Finally, this methodology produces a dynamic digital twin of the asset. The digital twin is more than a simple model: it involves the exchange of information in real time between the asset (regardless of its dimension) and its digital twin.

It is easy to understand how this new technology and modelling tool may offer great benefits, but it also implies higher risks. The more reliant we become on this technology, the greater is the potential damage in the event of failure – whether due to human or non-human error. This is one of the reasons why there are new stakeholders in the building industry. This is also one of the reasons why there is a notable silence from the insurance stakeholders on this topic. Ultimately, we are all working with enormously powerful technologies, but without the safety and security guaranteed by a legal framework. This means that today we need to rely on general laws (contract law, liability law, etc.) and specific technical standards[3] as well as ISO 19650 – the 'international standard for managing information throughout the life cycle of a built asset using building information modelling (BIM)'. ISO 19650 consists of five parts that cover different phases of an asset's lifecycle, from planning and design to construction, operation, and maintenance. Moreover, the application of ISO 19650 must be complemented by other ISO standards relating to various issues, including the stakeholder's functions, health and safety

[3] The Spanish Government notes that (https://www.mapa.gob.es/en/desarrollo-rural/temas/gestion-sostenible-regadios/centro-nacional-tecnologia-regadios/normalizacion/organismos-normalizacion/iso.aspx) 'ISO is a network of the national standards institutes of 162 countries, on the basis of one member per country, with a Central Secretariat at its headquarters in Geneva (Switzerland) that coordinates the system. The International Organization for Standardization (ISO) is composed of governmental and non-governmental delegations subdivided into a number of subcommittees charged with developing guidelines that will contribute to environmental improvement. The standards developed by ISO are voluntary, given that ISO is a non-governmental organization and does not depend on any other international organization; therefore, it does not have the authority to impose its standards on any country'.

standards, IT and technological standards, environmental and energy standards, and sustainability matters, among others.[4]

Considering this new and complex reality, which poses a tough challenge to cover in this paper, the outline I will follow is as follows: (i) First, I will provide a brief overview of sustainability in the building sector, and the importance of the impact of the footprint and its evolution. (ii) Second, I will introduce some of the new key players in the building process, such as the Facility Manager and the Lean Construction Manager (LC). (iii) Third, I will present some basic characteristics of BIM, a revolutionary tool that employs a digital, collaborative, and predictive methodology. BIM has been applied in the building sector for several years and already offers some interesting insights into its future potential. (iv) Finally, I will end the paper with some concluding remarks.

II. Sustainability and Building Business: Sustainable Building?

'Sustainability' and 'building construction' have a difficult and complex relationship. Balancing the two involves addressing the need for building – which is essential for the development of human activity (housing, infrastructure, communication, leisure,[5] business, health, etc) – while minimizing the environmental impact and promoting global sustainability.[6]

[4] For example, ISO 15221; 15942; 15643; 16309; 41012; 16627; 15978; 11855, among others. We would just like to highlight ISO 15392 and 17680, which regulate respectively 'Sustainability in building construction' and 'Sustainability of construction works. Assessment of the potential for sustainable renovation of buildings'.

[5] This aspect was partially addressed by M.I. Feliu Rey and M.D. Sánchez-Galera, 'La cooperativa como motor de la sostenibilidad el turismo', in L. Mezzasoma and M.J. Reyes López, *Turismo y sostenibilidad* (Navarra: Ed Aranzadi, 2018).

[6] Sustainability in building construction can be explained as the commitment and consistency in the responsible consumption of resources (both in terms of quality and quantity) in construction so that the current generation does not suffer from the negative consequences of construction in their life, and future generations inherit sufficient resources and an environment as clean and healthy as the current generation did. M.S. Bajjou et al, 'The Practical Relationships between Lean Construction Tools and Sustainable Development: A Literature Review' *Journal of Engineering Science and Technology Review*, X (2017); S. Moradi and K. Kähkönen, 'Success in Collaborative Construction through the Lens of Project Delivery Elements' *Built Environment Project and Asset Management*, XII (2022); S. Moradi and K. Kähkönen, 'Sustainability Indicators in Building Construction Projects through the Lens of Project Delivery Elements', in *Proceedings of the World Building Congress (WBC) 27-30 June 2022* (Melbourne, Australia: Emerald Publishing, 2022); S. Moradi and P. Sormunen, 'Integrating Lean Construction with BIM and Sustainability: A Comparative Study of Challenges, Enablers, Techniques, and Benefits' *Construction Innovation*, XXIV, 189 (2024).

One of the objectives of the 2030 Agenda is precisely to build sustainable and resilient cities (SDG 11).[7] Indeed, the UN states that 'cities represent the future of global life (...). Urban sprawl, air pollution and limited public open spaces persist in cities. Sustainable development cannot be achieved without significantly transforming the way urban spaces are built and managed'.[8] This concern is also reflected in the EU's objectives for 2040 and in the 2050 Agenda.[9]

Clearly, this is a very complex, if not unsolvable, problem, especially for critical issues preventing the sustainable development of the building sector, e.g. increases in costs[10] and shortage of raw materials or inadequate implementation scenario. Therefore, solutions may well have to be considered in a new dimension: the process of digitalization of the building business.[11] It should be noted that the impact of building on sustainability

[7] Wopke Hoekstra, EU Commissioner for Climate Action, said: 'In a climate-neutral Europe, we need to be able to heat and cool our homes and buildings with minimum emissions. We have the technologies to do this, but we need to create a stronger business case for renovations. The new Energy Performance of Buildings Directive will help mobilise additional finance and boost construction value chains. Together we can help homeowners and businesses renovate to save money and prepare for a net-zero future', available at https://www.esgtoday.com/eu-adopts-law-requiring-all-new-buildings-to-be-zero-emissions-by-2030/ (last visited 3 September 2024).

[8] In fact, the EU Climate Target insists on this point. In February 2024, the European Commission presented its assessment of a 2040 climate target for the EU. The Commission recommended reducing the EU's net greenhouse gas emissions by 90% by 2040 compared to 1990. The 2040 climate target will reaffirm the EU's determination to fight climate change and will shape our pathway beyond 2030 to ensure that the EU achieves climate neutrality by 2050. The goal of climate neutrality is at the heart of the European Green Deal and is a legally binding objective set out in European Parliament and Council Regulation 2021/1119/EU of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 [2021] OJ L243, 1-17, also known as the European Climate Act. In any case, the EU's climate target for 2030 is to reduce net greenhouse gas emissions by at least 55% compared to 1990. The 2040 climate target is our next intermediate step on the road to climate neutrality.

[9] This justified and necessary concern is manifested in a large and dense body of legislation such as European Parliament and Council Directive 2024/1760/EU of 13 June 2024 on Sustainability Due Diligence for companies and amending Directive (EU) 2019/1937 and Regulation (EU) 2023/2859 [2024] OJ L series.

[10] For an analysis of the capital cost barrier to sustainable construction and of a tactical framework to reduce costs and ensure sustainable buildings' whole-life costs, see M. Nasereddin and A. Price, 'Addressing the Capital Cost Barrier to Sustainable Construction' *Developments in the Built Environment*, 7 (2021), available at https://www.sciencedirect.com/science/article/pii/S2666165921000089.

[11] Obviously, in turn, the inevitable environmental impact of digitalization must be considered. See T.L. Friedmann, 'We are Openings the Lids on Two Giant Pandora's Boxes' *The New York Times*, available at https://www.nytimes.com/2023/05/02/opinion/ai-tech-climate-change.html (last visited 3 September 2024). On this article, Friedmann (three time winner of Pulitzer Prize) says: 'One of these Pandora's boxes is labelled "artificial intelligence", and it is exemplified by the likes of ChatGPT, Bard, and AlphaFold, which testify to humanity's

is not a one-off event: on the contrary, the impact extends over the various phases of building activity, ie pre-planning,[12] planning, design, supply of materials, construction, maintenance and upkeep of the building, occupancy by tenants, possible repairs and structural modifications. Additionally, factors such as energy consumption and efficiency[13] play critical roles. It is therefore important to consider the building as a unit (asset), with its own life and whose impact on the environment and sustainability must be considered at every stage.[14] This also applies to the total or partial ruin or destruction of the building.

In short, we cannot lose sight of the growing importance, also in terms of reputation, of sustainability in the complex reality of building construction. This leads us to the next section: the emergence of new subjects (actors and stakeholders) whose primary mission is to ensure that the evolution of the asset conforms to preset parameters, including

ability for the first time to manufacture something in a godlike way that approaches general intelligence, far exceeding the brainpower with which we evolved naturally. The other Pandora's box is labelled "climate change", and with it we humans are for the first time driving ourselves in a godlike way from one climate epoch into another. Up to now, that power was largely confined to natural forces involving Earth's orbit around the sun. For me the big question, as we lift the lids simultaneously, is: What kind of regulations and ethics must we put in place to manage what comes screaming out?'.

[12] For example, the proposed expansion of Barcelona airport was stopped in the initial phase precisely because of the environmental impact on the lagoon protected by the Natura 2000 network. cf *Diario El Mundo*, available at https://www.elmundo.es/economia/2021/06/12/60c3afe821efa062568b4652.html.

[13] In this sense, the following illustrate the idea properly: 'Buildings are responsible for approximately 40% of the energy consumption and 36% of the CO_2 emissions of the EU. On average Europeans spend 90% of their time indoors, and the quality of the indoor environment affects health and wellbeing. Two-thirds (65%) of Europe's building stock was built before 1980: about 97% of the EU's buildings must be upgraded to achieve the 2050 decarbonization goal [1], but only around 1% are renovated each year. Buildings have the potential to drive flexibility in the energy system, through energy production, control, storage and demand response, as well as green charging stations for electric vehicles; but this can only happen if a systemic upgrade of the building stock is achieved. A highly efficient, technically equipped and smarter building stock could be the cornerstone of a decarbonized energy system. EU legislation provides a clear framework for Member States to support the implementation of this interconnected system'. M. Fabbri et al, *A Guidebook to European Building Policy Key Legislation and Initiatives* (Buildings Performance Institute Europe, 2020), available at https://www.bpie.eu/wp-content/uploads/2020/08/BPIE_Guide-on-Building-Policy_Final.pdf (last visited 3 September 2024).

[14] The GBCe Country Report 2022: on the state of sustainable building urgencies in Spain identifies six urgencies to transform the sector: 'Acting on decarbonization, circular economy, health, biodiversity, integral renovation and resilience of society is imperative for a sector, the building sector, which is required to change its system to respond to the new environmental, economic, social and institutional challenges [...] Each of these urgencies has a different level of development and understanding and is at a different stage of change. But at the same time, they are deeply interlinked', available at https://gbce.es/documentos/GBC_informe_2022_Digital.pdf.

sustainability criteria. Among these, the Facility Manager (FM) assumes special importance as they are present in almost all phases of the asset. I will also make a brief reference to the Lean Construction Manager (LC) because of its growing role and impact on sustainability.

III. Facility Manager and Lean Construction Manager: New Players in the Building Industry[15]

1. Facility Manager

There are numerous definitions of Facility Manager (FM).[16] Castellanos Moreno[17] offers a detailed overview of the evolution and different perspectives of the figure. However, the basic element of all of them lies in the integrated management of asset[18] maintenance, management and conservation. The aim is to maximize efficiency, profitability, and cost savings throughout the asset's lifecycle, which begins in its pre-construction phase and extends until its demolition or recycling. This comprehensive management, therefore, encompasses every aspect,

[15] Spain regulates the building sector at the national level through the 1999 Law on Building Regulation, which defines and controversially restricts the list of recognized 'building agents'. However, the truth is that building activity is becoming increasingly complex and international, leading to the emergence of new agents, many of whom are of foreign origin. The best known are, among others, the Project Manager, the Forward Funding Manager, and the Facility Manager. Additionally, other new agents such as the Lean Manager and the Risk Manager, with very specific roles that respond to the business side of building development, have emerged. Obviously, although all of them assume a relevant role in terms of the sustainability criteria of the asset throughout its different phases, it is not possible to cover all stakeholders and actors here. For example, public authorities (governments/regulators/local authorities) play a fundamental role in granting or denying licences, permits and authorizations necessary for an asset's success. Other stakeholders include the Risk Manager, building users and owners, design teams (engineering & architecture of buildings), contractors and builders, manufacturers of construction products, deconstruction and demolition teams, investors, developers, and insurance providers.

[16] 'Literature is replete with FM definitions', claims E. Parms et al, 'The Building Information Modelling Trajectory in Facilities Management: A Review' *Automation in Construction*, LXXV, 45-55 (2017).

[17] M. Castellanos Moreno, 'La responsabilidad social como valor añadido del facilities manager en la gestión del patrimonio inmobiliario' (2013), Doctoral thesis supervised by Prof A.E. Humero Martin, School of Architecture, Polytechnic University of Madrid. Thesis published and consulted in the online institutional repository of the University.

[18] The three key components of facilities management are the integration of people, places, and processes. By bringing these three elements together, facilities managers can create a work environment that is conducive to increased productivity and improved quality of life for employees. Parms, Edwards, Sings (2017) state: 'These skills encompass diverse roles and duties may include the strategic planning and management of: plant operations; computer systems analysis; building assets; interior operations; and day-to-day tactical operations of assets and staff'. Of course, information is critical for supporting efficient and effective building maintenance and day-to-day operations.

including space utilization, facilities, human resources and, of course, sustainability. This requires a thorough knowledge of the asset, also in the project phase, and the preparation of an appropriate strategic plan. The FM is present throughout the asset's lifecycle and collaborates closely with other actors such as the Project Manager. This has given rise to the role of the Sustainability Facility Professional (SFP) as a speciality within the functions of the FM,[19] referring specifically to the management of the sustainability of the asset. The SFP's responsibilities include sustainable management of energy,[20] water, waste, and the materials and resources used by an asset. Sustainable Facility Management aims to minimize the negative environmental impacts of the building sector. In fact, 'Sustainable Facility Management (SFM) is a unique process that offers a Facility Manager the authority to make structural, architectural, and operational changes that reduce the negative impact of buildings on their occupants and the environment'.[21] SFM 'encompasses several principles, including energy and water efficiency, waste management, ecological design, use of sustainable materials, user perspective, indoor air quality assurance, appropriate landscaping, enhanced quality of life, financial aspects, and strategic maintenance'.[22]

The recent EU Directive 2024/1760 of 13 June 2024 on Sustainability Due Diligence for companies has significantly reinforced the role of the SFM, elevating its prominence even further. Indeed, Directive 2024/1760, Recital (19) says: 'Therefore, the main obligations in this Directive should be obligations of means. The company should take appropriate measures which are capable of achieving the objectives of due diligence by effectively addressing adverse impacts, in a manner commensurate to the degree of severity and the likelihood of the adverse impact'. This statement is applicable to construction and, of course, more specifically to the SFM.[23]

[19] IFMA's Sustainability Facility Professional (SFP) is an assessment-based certificate programme that offers specialized certification in sustainability. It is also an opportunity for FMs with an interest in efficiency, data-driven decision-making and sustainable practices to gain recognition and expertise. Earning the SFP designation enables individuals to contribute to their organization's economic, environmental and social performance (https://www.ifma.org).

[20] For instance, according to the US Green Building Council, buildings account for 36% of total energy consumption in the United States.

[21] J.P. Fennimore, *Facility Type and Management Methods. Sustainable Facility Management: Operational Strategies for Today* (London: Pearson Education, 1st ed, 2014), 1-31; see also G. Alfalah and T. Zayed, 'A Review of Sustainable Facility Management Research' *Sustainable Cities and Society*, LV (2020).

[22] D. Kincaid, *Adapting Buildings for Changing Uses: Guidelines for Change of Use Refurbishment* (London-New York: Taylor &Francis, 2004).

[23] See Art 29 (Civil liability of companies and the right to full compensation) European Parliament and Council Directive 2024/1760/EU.

2. Lean Construction Manager (LC)

In 1992, the Center for Integrated Facility Management at Stanford University published a Technical Report signed by Lauri Koskela, entitled 'Application of the New Production Philosophy to Construction Technologies'.[24] This report basically advocated for a shift in the vision of construction, proposing that it should be seen as a flow of processes instead of an isolated activity.[25] Lean construction[26] is a project delivery process that uses lean methods to maximize stakeholder value and reduce waste by emphasizing collaboration between teams on a project.

The goal of Lean Construction (LC) is to increase productivity, profitability, and innovation in the industry.[27] LC is born for site execution but extends to all stages of the project. In other words, as Koskela[28] noted, 'there are two main processes in a construction project: (a) Design process: is a stagewise refinement of specifications where vague needs and wishes are transformed into requirements, via a varying number of steps, to delayed design. Simultaneously, this is a process of problem detection and solving. It can be further divided into individual subprocesses and supporting processes. (b) Construction process: is composed of two different types of flows: (i) Material process consisting of the flows of material to the site, including processing and assembling on site. (ii) Work processes of construction teams. The temporal and spatial flows of construction teams on site are often closely associated with the material processes'.

In addition, LC activity promotes greater efficiency, waste reduction, team confidence, customer satisfaction, collaborative risk management, fair delivery of profits and improved safety on projects. A modern and contemporary re-reading of the purpose of LC must surely include

[24] Available at https://stacks.stanford.edu/file/druid:kh328xt3298/TR072.pdf.

[25] L. Koskela, *Technical Report* (Stanford University, 1982), 5: 'The ideas of the new production philosophy first originated in Japan in the 1950s'. The most prominent application was the Toyota production system. The basic idea in the Toyota production system is the elimination of inventories and other waste through small lot production, reduced set-up times, semiautonomous machines, co-operation with suppliers, and other techniques (citation of Monden 1983, Ohno 1988, Shingo 1984, Shingo 1988)'.

[26] X.M. Brioso Lescano, 'El análisis de la Construcción sin pérdidas (Lean Construction) y su relación con el Project & Construction Management: Propuesta de regulación en España y su inclusión en la Ley de Ordenación de la Edificación' (2015), Doctoral thesis supervised by Prof Dr A.E. Humero Martin, School of Architecture, Polytechnic University of Madrid. Thesis published and consulted in the online institutional repository of the university.

[27] An example of this is the T-30 Hotel (China) which was built using Lean. This 30-storey hotel was built in just 15 days and included a number of innovative features. Lean aims to maximize value for stakeholders, while minimizing waste and improving efficiency across the board (see X.M. Brioso Lescano).

[28] L. Koskela, n 25 above, 38.

advocating sustainability during the Flow of Construction, (that is, a movement that is smooth and uninterrupted, as in the flow of work from one crew to the next[29]), where this is translated into cost, value and time.

The functions assigned to FM and LC are further enhanced in a BIM environment, as this triangle represents a real paradigm shift[30] in the building industry, moving away from individuality and local optimization toward team spirit, aligned interests, and project optimization.

IV. Building Information Modelling (BIM) and Sustainability

Directive 2014/24/EU[31] states in Art 22: 'For public works contracts and design contests, Member States may require the use of specific electronic tools, such as of building information electronic modelling tools or similar'. Thus, with the expression 'building information electronic modelling tools or similar', for the first time in the European Union, specific mention is made of the usefulness and convenience, later converted into necessity, of using BIM. In addition, the European directive also stipulates that contracting authorities must offer alternative means of access until these tools become widely available. Finally, this directive requires Member States to put in place some provisions requiring the use of these systems in public procurement contracts, with the following objectives: cost savings[32] (economic and time), an economic boost to the building sector, and the improvement of sustainable design.[33] In other

[29] S. Moradi and P. Sormunen, 'Integrating Lean Construction with BIM and Sustainability: A Comparative Study of Challenges, Enablers, Techniques, and Benefits' *Construction Innovation*, XXIV, 190 (2024).

[30] S. Moradi et al, 'A Competency Model for the Selection and Performance Improvement of Project Managers in Collaborative Construction Projects: Behavioral Studies in Norway and Finland' *Buildings*, XI, 10004 (2021).

[31] European Parliament and Council Directive 2014/24/EU of 26 February 2014 on public procurement and repealing European Parliament and Council Directive 2004/18/EC [2014] OJ L94/65.

[32] The EUBIM Task Group, supported by the European Commission, published in 2017 a handbook for the introduction of BIM methodology by the European public sector, in which it estimates – in that year – that the use of BIM allows savings of around 10-20% of construction expenditure. Today, this percentage of savings is much higher. The increasing application of BIM makes the total savings in the building sector very significant. However, the analysis carried out by the Interministerial BIM Commission on the basis of the 2022 tenders published on the Public Sector Procurement Platform foresees a significantly higher potential implementation of BIM, which estimates that between 20% and 25% of the estimated value of the tender of AGE and its public bodies and related or dependent public law entities is susceptible to the use of BIM.

[33] European Commission, 'Making public procurement work in Europe and for Europe' (Communication) COM(2017) 572, alludes to the transformative potential of using BIM methodology for the building sector: 'a specific approach (to strategic public

words, Directive 2014/24/EU fosters the gradual yet steady implementation of BIM.[34]

What exactly is Building Information Modelling (BIM)?[35] Clearly, BIM is *not* a simple software tool that allows the evolution of classic modelling systems in a digital format. It is not an actor in the building industry: BIM is not an agent similar to, for example, a project manager, a developer, or a builder. Rather, BIM is a working methodology for the creation and management of a project which centralizes all the information generated by all the agents involved in the lifecycle of an asset. This collaborative approach makes BIM a key tool in project management. Naturally, BIM methodology requires the intervention of professionals with specific

procurement) is needed in priority sectors, such as Construction [...]. Initiatives and tools such as [...] Building Information Modelling [...] are already in place'.

[34] The aforementioned Directive is transposed in Spain through the Public Sector Contracts Law 9/2017, which regulates the administrative procedure through which a public body develops a contracting process of a different nature or object, such as works, project tenders or related services (Works Management, Health and Safety coordination, Quality Control, etc). Section six of the fifteenth additional provision of this law, entitled 'Rules on the means of communication to be used in the procedures regulated in this law', states that 'for public works contracts, works concession contracts, service contracts and project tenders and in mixed contracts that combine elements of these, contracting authorities may require the use of specific electronic tools, such as Building Information Modelling (BIM) or similar tools'. In other words, Public Sector Contracts Law 9/2017 allows but does not (at that date) oblige public bodies to require the use of BIM methodology in public tenders by including it in the tender specifications. In 2018, the Spanish Government issued Royal Decree no 1515 of 28 December 2018, establishing the Interministerial Commission for the incorporation of the BIM methodology in public procurement. This Commission was tasked with drawing up a Plan for the Incorporation of the BIM Methodology in the public procurement of the General State Administration, setting minimum thresholds for its mandatory application and outlining actions for its gradual and progressive implementation. This Plan was approved on 28 December 2023. On the other hand, in Spain, Royal Decree 472/2019, published in the Official State Gazette on 2 August 2019, regulates the direct granting of subsidies to various professional associations and general councils of professional associations to support training on BIM methodology during the 2019 budget year. In 2022, the Spanish Law on Architectural Quality stated that 'the use of specific electronic tools, such as digital building information modelling (BIM) methodologies, will be encouraged in public sector projects' which 'will facilitate the drafting of projects, construction management and management of the execution of the work and the use and maintenance of architecture'. More recently, in 2023, as part of this slow but unstoppable implementation of BIM in Spain, Order PCM/818/2023 of 18 July (BOE 20 July 2023) was published, approving the Plan for the Incorporation of the BIM Methodology in the public procurement of the General State Administration and its public law entities.

[35] BIM is also defined in Fundamentos BIM en la contratación pública, published by the Spanish BIM Interministerial Commission, available at https:// cvp.mitma.gob.es/fundamentos-bim-para-la-contratacion-publica-2.

professional qualifications: architects and engineers with specialized knowledge of how BIM works.[36]

BIM is a collaborative work methodology for the management of building or civil works projects through a digital model. This digital model serves as a large database that makes it possible to manage the elements that make up the asset's infrastructure throughout its lifecycle. The BIM methodology represents a real technological revolution for the building industry's production and management processes, aiming to centralize all project information in a digital model created by all its agents. This tool makes it possible to build more efficiently, reducing costs while allowing designers, builders and other agents involved to work collaboratively. BIM is the evolution of traditional plan-based design systems, as it incorporates: (i) geometric information (3D – represents the information of the architectural design and each engineering aspect involved in order to obtain a detailed geometric representation of each part of the building –); (ii) time (4D – allows the execution process of a project to be known and controlled through simulations, etc –); (iii) cost (5D – control of costs and estimation of expenses of a project with a direct impact on its profitability –); (iv) sustainability or environmental (6D – behaviour of the project allowing for the creation of variations in materials, fuels, etc –); and (v) maintenance (7D – managing the lifecycle of the project: inspections, maintenance, etc). The use of BIM goes beyond the design phase, extending into the execution of the project. BIM is a digital and dynamic representation of a projected and/or constructed object (buildings, bridges, roads, etc) through the structured, coordinated, and coherent use of a reliable database. This allows for decisions to be taken throughout the lifecycle of the object, starting with the design and ending with its demolition or decommissioning.

BIM is regulated in the ISO 19650 standard where BIM is defined as the use of a shared digital representation of a built asset to facilitate the processes of the design, construction, and operation of the asset and to provide a reliable basis for decision-making. BIM works with a single digital model,[37] which contains all relevant information about the asset. This improves all construction processes, avoiding errors and inconsistencies that can arise from using different models for the partial description (structures, installations, structural, and physical enclosures).

[36] In this regard, see Spanish Royal Decree 472/2019 (BOE 2 August 2019), which regulates the direct granting of subsidies to various professional associations for BIM methodology training.

[37] It is important to underline that a digital mock-up is not a static representation of the project in digital format, but a dynamic representation of all phases of the life of an asset, its design, and implementation. The information in the digital model is interactive and dynamic. Today it has evolved into what is known as a digital twin.

The different intervention of each stakeholder and agent responds to each phase or cycle attributed to them (which may be several), and of

course, also to the special contents assigned to it. These contents may coincide – totally or partially – with several complementary tasks shared by different actors. The information provided, shared, verified and accepted (or refused) in each dimension implies a very high degree of predictability of the future evolution of the asset (short, medium, and long term) and its consequences (cost, time, sustainability, maintenance, and thus makes a forecast on its evolution) close to certainty. This is a complex and collaborative intervention where all agents are involved in each different phase of the BIM methodology.

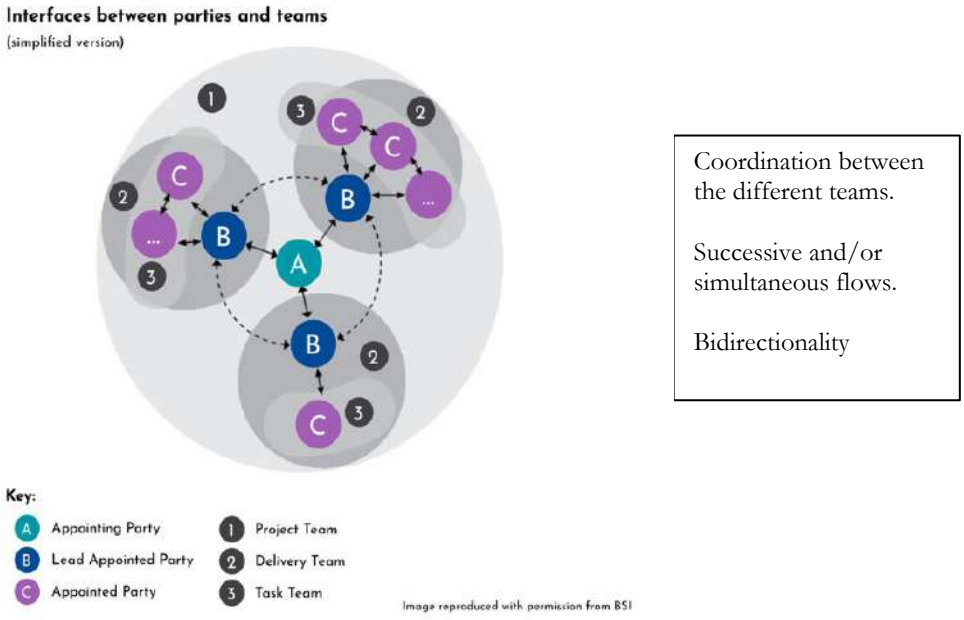
Information is one of the axes of BIM. This information (in each dimension) is sought, analysed, selected, contrasted, modified, approved (and even rejected) and shared by different human teams. This implies the sophisticated management of this information. Therefore, prior to initiating a search for information, the Appointing Party (ie the owner, or asset developer or builder) must establish a set of requirements about who can access and modify the information, when they can do so, and the reasons for doing so, or in any other way affect the information (including but not limited to the asset's requirements (AIR)) on behalf of the organization (OIR), teams, employers (EIR), and other stakeholders.

Following this, the management of Asset Information (AIM) and Project Information (PIM) comes into play.

The BIM structure is organized around key people (actors) with different roles and functions: (i) the Appointing Party (triggers action and receives the information); (ii) the Lead Appointed Party (leads the action by leading the production of information); (iii) the Appointed Party

(produces and delivers the information under the leadership of the Lead Appointed Party).

These roles form different hierarchical teams: (i) the Project Team (composed by the Appointing Party); (ii) the Delivery Team (composed by the Lead Appointing Party); (iii) the Task Team (composed by the Appointed Party and – optionally – by the Lead Appointing Party), as shown in the following graph:



Project Team structure (1), composed of some Delivery Teams (2) and Task Teams (3). Information exchanges can be internal (dotted line) or external (solid line). Source: Norma UNE-EN ISO 19650-2:2019.

This structure, as outlined by ISO 19650, also dictates a clear distribution of roles and responsibilities among the different teams.

For example, FM or SFM could be part of both the Task Teams (searching information) and the Delivery Teams (involved in planning, searching, authorizing or rejecting the information provided by the Task Team, etc). FM or SFM responsibilities would change according to their assignment (or not) to different Teams.

V. Conclusion

BIM technology is a tool that enhances the quality and sustainability of building projects as a result of the real-time management of shared

information and its constant updating (Common Data Environment CDE, ISO 19650). The old scheme of the verticality of information is replaced by a horizontal, collaborative, and predictive model.

The use of BIM is estimated to contribute to sustainability in the construction sector by reducing up to 15% of waste volume and up to 57% of waste management costs ('European Construction Sector Observatory', 2021).

As stated in the Triennial Report on Public Procurement in Spain in 2021, 2022 and 2023,[38] the BIM methodology allows for a single source of information, fosters close collaboration among all stakeholders, and supports digital and collaborative management of information throughout the entire lifecycle of an asset. This also allows for more sustainable projects, the earlier detection of project errors, and more accurate drafting of technical specifications, which in the long run means fewer contract modifications and better and more sustainable contract execution. From an SPC point of view, the delivery of more sustainable projects and infrastructure will be more efficient. In short, it contributes to reducing waste or to optimal waste management, as well as to the improvement of the environmental performance (eg energy efficiency) of buildings and infrastructure (as it allows for the optimization of designs to reduce resource consumption or the use of more sustainable materials). The proper application of BIM methodology is likely to contribute to reducing environmental externalities in public procurement, among other green benefits.

While BIM presents a promising landscape for sustainability, it is not without risks, yet it is an area that deserves further exploration.

[38] Ministerio de Hacienda, Gobierno de España, Date of publication on the Transparency Portal: 6 August 2024, available at https://transparencia.gob.es/transparencia/transparencia_Home/index/MasInformacion/Informes-de-interes/Hacienda/InformetrienalContratacionPublica21-22-23.html (last visited 16 August 2024).

Negative Externalities from Electricity Generation and the Right Remedy: A Comparative Analysis of Alaska and Sweden

Art Nash* and Gianna Giardini**

Abstract

Electricity generation, whether from renewable or conventional sources, produces negative externalities that may affect common goods. Despite the rich debate, common goods are still in search of an identity. Therefore, international practice has developed several forms of protection, such as litigation, legislative policies, or negotiations. The aim of this paper is to investigate the different remedies adopted by Alaska and Sweden to address externalities arising from non-renewable and renewable electricity generation, respectively. The analysis leads to the conclusion that the European approach seems to be more in line with the theory of the commons, by directly empowering local communities through policies and the use of agreements. It prevents the uncertainty associated with the compensation for damages as pursued by the Alaskan authorities in the proposed case study. In addition, this approach helps to ensure energy justice and avoids delays in achieving sustainability goals, while safeguarding that no one is left behind.

Keywords

Electricity Generation, Negative Externality, Common Goods, Right Remedy, Information and Participation, Just Energy Transition.

I. Introduction

Electricity is a form of energy produced by converting another form of energy into electricity. The energy we use to make electricity can come from renewable or non-renewable sources. Most renewable energy sources are based on kinetic energy. Kinetic energy is the energy of movement. Wind turbines are powered by moving air. Hydroelectric turbines are driven by moving water. Wave turbines are driven by the movement of the sea. Non-renewable energy sources (nuclear, biomass and fossil fuels) are all based on chemical energy.[1] Originally, electricity generation was based solely on

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the combustion of coal. Later, other fuels such as natural gas and oil were introduced. The entry of renewable energy was a milestone.

Electricity generation produces negative externalities.[2] The externalities cover both the production of energy from fossil sources and the production of energy from renewable sources.[3]

From a legal perspective, negative externalities from electricity generation undermine the use of common goods, such as clean water, clean air or fertile soil.[4]

Debate on the *commons* has evolved both in Europe and in the United States.[5] Scholars agree that they are defined as goods that, irrespective of

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www.phd-sdc.it) Cycle XXXVIII, with the support of a scholarship financed by Ministerial Decree no 351 of 9 April 2022, based on the NRRP – funded by the European Union – NextGenerationEU – Mission 4 'Education and Research', Component 1 'Enhancement of the offer of educational services: from nurseries to universities' – Investment 4.1 'Extension of the number of research doctorates and innovative doctorates for public administration and cultural heritage'. Section 3 belongs to Gianna Giardini. The Introduction and Conclusion are by both authors.

[1] For complete information, see B. Novakovic and A. Nasiri, 'Introduction to Electrical Energy Systems', in M.H. Rashid ed, *Electric Renewable Energy Systems* (Cambridge: Academic Press, 2016), 1-20.

[2] On the meaning of externality as intended in this paper, see A. Zerrahn, 'Wind Power and Externalities' 141 *Ecological Economics*, 245-260 (2017): 'A negative externality is an effect outside market mechanisms that affects an individual or a firm beyond its control by reducing its utility or its expected perfect production set. In neoclassical theory, it represents a market failure and reduces social welfare by driving a wedge between the private and social costs'. See also T. Helbling, 'Externalities: Prices Do Not Capture All Costs' *Back to Basics: Finance & Development*, 38-39 (2017); P. Lemieux, 'The Threat of Externalities' *Regulation*, 18-24 (2021).

[3] On these points, see A. Bielecki et al, 'The Externalities of Energy Production in the Context of Development of Clean Energy Generation' 27 *Environmental Science and Pollution Research*, 11506-11530 (2020). Nuclear power, for example, produces radioactive waste. Conventional thermal power plants, which generate thermal energy through chemical combustion of fossil fuels such as coal, oil or natural gas, cause significant pollution of the air, water and soil through the emission of toxic substances and carbon dioxide and through transport. Mining causes deep destruction of the soil. In the case of hydropower, the presence of a large dam can significantly alter the ecosystem. On the other hand, biomass leads to the expansion of agricultural land or a change in the use of existing land from food and feed production to energy crops. This not only leads to higher food and feed prices, but also causes environmental degradation, such as water consumption and loss of biodiversity. Potential risks of geothermal energy include groundwater contamination and the release of hydrogen sulphide and other gases into the atmosphere. Solar energy causes problems with the storage of materials from solar panels. Wind turbines generate continuous low-intensity noise and vibration from airborne components and their structure. Theoretically, they can cause stress, which in turn can affect health. Wind farms also have a significant impact on the environment and the landscape.

[4] D. Elliot and D. Etsy, 'The End Environmental Externalities Manifesto' 506 *NYU Environmental Law Journal*, 506-542 (2021).

[5] On the subject, see, *inter alia*, S. Rodotà, *I beni comuni. L'inaspettata rinascita degli usi collettivi* (Napoli: La scuola di Pitagora, 2018); U. Mattei, 'I beni comuni come istituzione giuridica' 2 *Questione giustizia*, 59 (2017); A. Ciervo, 'Agire per tutti e per

whether they belong to the public or private domain, are characterized by the fact that they are pledged for the purpose of realizing the fundamental rights of the individual. Common goods are recognized by a community that is committed to managing and caring for them, not only in its own interest, but also in the interest of future generations.[6] The common good combines care, duty, reciprocity and participation. The common good is what we all, individually and collectively, have not only passive rights to use, but active rights and duties to protect.[7]

Despite the flourishing debate, the common goods are still looking for identity and protection.[8] The protection of common goods is not a simple theoretical solution, mainly because it depends on an approach marked by an individualistic view of property.[9] However, as several authors have pointed out, we are faced with a 'fluid' concept that is constantly in motion, so that it is difficult to contain it in a regulatory formula.[10]

As a result, international practice has developed various forms of commons protection. The first is litigation. Strict enforcement of the jurisdiction can contribute to efficient investment and greater social benefits. In addition, regulatory agencies can be strong mediators. The second option is the promotion of legislative policies. The third and final approach, which is usually the most effective, is negotiation.

Against this backdrop, the question which arises in this work is the following: What is the right remedy when negative externalities from both renewable and non-renewable electricity generation affects the common goods?

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nessuno. Appunti per una teoria processuale dei beni comuni' 2 *Questione giustizia*, 97 (2017); G. Perlingieri, 'Criticità della presunta categoria dei beni c.dd. «comuni». Per una «funzione» e una «utilità sociale» prese sul serio' *Rassegna di diritto civile*, 1, 137-163 (2022); B. Sirgiovanni, 'Dal diritto sui beni comuni al diritto ai beni comuni' *Rassegna di diritto civile*, 1, 229-246 (2017); E. Ostrom, *Governing the Commons. The Evolution of Institutions for Collective Action* (United Kingdom: Oxford University Press, 1990).

[6] See on this point U. Mattei, n 5 above, according to which 'a common good can be anything that the community recognizes as meeting a real, fundamental need outside of market exchange. In addition to public physical space, institutional organizations such as cooperatives or municipalities, trusts managed for the benefit of future generations, village economies, water-sharing facilities and many other organizational structures, both ancient and contemporary, can be covered by the concept. The usefulness of the common good is created through shared access by the community as well as widespread decision-making at all levels'.

[7] Thus S. Rodotà, *Il diritto di avere diritt*i (Roma: Laterza, 2013), 109.

[8] In this sense, see A. Di Porto, 'I "beni comuni" in cerca di identità e tutela', in G. Conte, A. Fusaro, A. Somma and V. Zeno-Zencovich eds, *Dialoghi con Guido Alpa* (Roma: Roma Tre-Press, 2018), 163-178.

[9] Thus, A. Ciervo, n 5 above.

[10] The expression is by M. Francesca, 'Beni comuni e razionalità discreta del diritto', in G. Perlingieri and A. Fachechi eds, *Ragionevolezza e proporzionalità* (Napoli: Edizioni Scientifiche Italiane, 2017), 476.

The answer to this question takes shape through a comparative analysis of the United States and the European Union, in particular between Alaska and Sweden. The first part of the work is devoted to examining the remedies adopted in Alaska to repair the damage caused by the spillage of oil, which is commonly used as a fossil fuel for the production of non-renewable energy. The second part of the work focuses on the legal solutions enacted in Sweden to limit the negative externalities generated by the production of renewable energy. The aim of this work is to show how the energy transition, conceived as a shift from fossil to renewable energy sources, enables the adoption of legislative and/or negotiated solutions that respect the rights of the individual and of the community and ensure better protection of the common goods.

II. Negative Externalities of Conventional Energy Production on Local Communities: The Case of Alaska

In 1973, the Arab Oil Crisis arose from an oil embargo against the US stemming from the geopolitics of the Yom Kippur War. This prompted the US Congress to pass legislation for massive petroleum extraction and transport via pipeline, for bolstering domestic oil reserves. This challenge was addressed with the US Congress passing the Alaska Native Land Settlement Act, opening the way for drilling and transporting oil from Prudhoe Bay on Alaska's Arctic North Slope.[11]

Many residents in the area of Valdez and other Prince William Sound coastal communities were directly dependent on seasonal economic activity around eco-tourism, subsistence, and mariculture in the open, pristine waters that were shared with the variously nation-flagged tankers passing back through to the refineries in the lower 48 States. The health of biological ecosystems in the waters that the tankers travel through to pick up the oil is inextricably tied to seafood and tourism activities. Thus, one

[11] E.W. Kenworthy, 'Judge Orders Hickel to Delay Permit for Alaska Pipeline, Road' *The New York Time*s, 2 April 1970. The US Congress approved the provisions for the pipeline, but many Native tribes had demanded payment of land loans that had been granted when Alaska became a State. As a result, the US Supreme Court upheld an injunction on the right of way for the pipeline on behalf of five Athabascan villages (Allakaket, Betties, Minto, Rampart and Stevens Village), based on a 1948 law that prohibits the US Department of the Interior from granting rights of way (without consent) over land used by tribes organized under the famous Indian Reorganisation Act of 1934. The Supreme Court case brought by indigenous tribes against the original US Congressional approval of the Alaska oil pipeline was a solution to finally settle the permanent ownership, or 'land claims', of the land they had used in perpetuity as a kind of property rights issue per se. Once these ownership issues were codified in the Alaska Native Claims Settlement Act of 1971, this legislation became the basis for Native corporations, subsistence food rights and even the legal argument for damages from the oil spill's impact on local tribal communities in Prince William Sound.

detrimental event on the environment may cripple aggregate economic activity for years.

On 24 March 1989, the Exxon Valdez, an oil tanker owned by the Exxon Shipping Company, spilled 11 million gallons of crude oil into Alaska's Prince William Sound.[12]

There were personal health costs to the outside workers who developed long-term chronic respiratory problems from cleaners and the hydrocarbons dispersed widely to remove the oil from rocks on beaches. There were also intangible costs such as the cultural loss by Alaskan Chugach Natives who were reliant on local, subsistence-gathered foods and hunting grounds, which were damaged and coated by the crude oil.[13] There were over 1,300 miles of coastline affected, including wildlife habitats and breeding grounds.[14] In some cases, the surface oil may not be visible when sailing or even by walking on beaches due to tidal action or Exxon clean-up crews steaming and wiping off the rocks. Yet when turning over shore rocks or drawing a sample several inches deep in the sand or soil there are still reserves of dark petrol present. This creates ecological and potential food chain problems as these are venues for shorebirds to collect food and where sea mammals have traditionally sunned themselves and mated.

As a major tort law case, ultimately courts had to take into account US maritime law.[15] The initial 1991 settlement resulted in a criminal plea agreement ($25 million), criminal restitution ($100 million), and civil settlement ($900 million). Exxon Valdez's captain faced the Alaska criminal court one year later and was found guilty on one of four counts for the negligent discharge of oil, costing him just over $50,000 in fines and a 90-day jail sentence. The US Coast Guard charges were dismissed, while his master's license was suspended for nine months. Around the same time, in the US Federal court, a grand jury indicted Exxon for felony and misdemeanour charges. Exxon paid close to $1 billion in fines for environmental claims and was then pressed into a lawsuit against six dozen attorneys representing individuals seeking compensatory and punitive

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[12] Alaska Oil Spill Commission, 'Spill: The Sinking of *Exxon Valdez*'s Final Report' (1990). This report contains official details of each aspect of the oil spill and the dynamics of corporate actors. See also C. Rickter and Alaska Oil Spill Commission, 'Spill: The Wreck of the Exxon Valdez' (1990), 4.

[13] G. Palast, 'The True Cause of the Exxon Valdez Disaster: Vultures' Picnic, chapter 7', available at https://www.gregpalast.com/my-home-is-now-a-strange-place/ (last visited August 2024).

[14] National Oceanic and Atmospheric Agency, 'Damage Assessment, Remediation, and Restoration-Valdez Oil Spill', available at https://darrp.noaa.gov/oil-spills/exxon-valdez#:~:text=Exxon%20settled%20in%201991%20with,civil%20settlement%20(%24900%20million) (last visited August 2024).

[15] W. Lovett, 'Valdez Punitive Damages and Tort Reform' 3 *Tort and Insurance Law Journal*, 1071-1128 (2003).

damages. A jury in a subsequent 1994 tort case awarded $5 billion dollars for punitive damages in 1994 due to reckless conduct by Exxon.[16] After further appeals from Exxon, seven years later the newly persuaded federal courts found the amount to be excessive. Thus, the following year a district appeals judge reinstated only $4 billion. The following year the US Supreme Court ordered the appeals judge to reconsider and in 2006 the same appeals court cut the punitive damages in half. In 2009, the Supreme Court then reduced the final damages to $1.5 billion.[17]

The complexity of the reparations process was compounded by the fact that it was not easy to determine liability. It ended up that there had been no single person responsible but rather a mix of unheeded corporate protocol, a lack of regulation enforcement, HR departments not following up on employees' conditions, governmental communication, all of which contributed to the oil spill. Some of the legal arguments were based on the Bill of Rights and Reconstruction-Era amendments, and the reduction of damages derived from the application of maritime law and the corresponding subsequent limits.

However, the intangible impact of this fact has been unquantifiable.

One study on the four dozen bird species of Prince William Sound found that the oil spill had clear, initial negative impacts on the habitat of nearly half of the species, suggesting serious initial effects on livability.[18] Coastal villages themselves have been affected in their seasonal routines and in the recreation activities of residents. The 'community' itself was altered with all the new stresses, and the quality of life for many changed, all from the one oil spill and the resultant chaotic clean-up operations.

However, the reality is that the consequences of fossil fuel use are much broader than the single case of the Exxon Valdez spill.

One of the most audacious sets of negative externalities may be raising its head in the Arctic. Though some may debate to what extent crude oil or fossil fuels are contributing to the increase in mean temperatures, in the Arctic it is clear that these increases outpaced the rest of the US by at least

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[16] K. Schneider, 'Exxon is Ordered to Pay $5 Billion for Exxon Valdez Spill' *The New York Times*, 17 September 1994. This made it, at the time the largest standing tort award, until it was surpassed by other larger awards in the 2000's while awaiting appeals. See also D. Barwick, 'The American Tort System's Response to Environmental Disaster: The Exxon Valdez Oil Spill as a Case Study' *Stanford Environmental Law Journal*, 19, 25 (2000); E. Barker, 'The Exxon Trial: A Do-It-Yourself Jury' *The American Lawyer*, 69-77 (1994); J. Hersch and W. Kip Viscusi, 'Punitive Damages by Numbers Exxon Shipping Co v Baker' 18 *Supreme Court Economic Review*, 1 (2010).

[17] L. Cabrasser, Heimann & Bernstein, 'Exxon Valdez Oil Spill Class Action' (2006), available at https://www.lieffcabraser.com/environment/exxon-valdez/ (last visited August 2024).

[18] R.H. Day, S.M. Murphy et al, 'Effects of the *Exxon Valdez* Oil Spill on Habitat Use by Birds in Prince William Sound, Alaska' 7 *Ecological Applications*, 593-613 (1997).

200% in the 20th century.[19] This thermal acceleration is exacerbating the melting of permafrost (soils that are frozen for at least 24 consecutive months). Moreover, one of the uncompensated penalties for remote Alaska Native tribal communities as a whole that is tied to the oil or carbon emitted mostly elsewhere is climigration.[20] Unfortunately for several coastal Alaskan tribes, the personal 'social' costs are high in this regard as entire communities are having to contemplate leaving their locations where they have lived permanently and to do so without recompense (beyond funding for logistics and material costs to relocate away from shorelines that are losing out to new watermarks). This means that often ancestral graveyards are left to erode and are left to the sea, and old school or tribal buildings are dismantled and burned. In the period of relocation that in some cases lasts several years, some jobs are lost, thus forcing families into urban areas for temporary work.

While federal agencies such as the Department of the Interior can impose a royalty surcharge on fossil fuel and mineral extraction leases, it may not be as easy for Alaska agencies overseeing their own oil and gas leases. Penalty fees are also another tool for agencies to internalize social costs into production costs that would then be accounted for in producers' supply curves. Generally, in the United States, a regulatory agency such as the Environmental Protection Agency would be the one exacting penalties for excess pollution. Such fees can shift the demand curve or the willingness to pay by producers who manufacture products and cause emissions, yet the monies from the fines may not be internalized and put toward increasing the overall social benefit. Rather, the collected fees may instead end up supporting another project that has a different marginal (incremental) benefit over some other product type.

It should be noted that not all costs to society can be monetized, such as cultural and language heritage disintegration or extinction due to the climate-induced diaspora that is becoming increasingly familiar. When tribal and small agricultural communities are dispersed into urban areas, the day-to-day economic transactions and homogeneous school bodies there often do not help promote local languages and other customs. There are concentrated efforts by non-government organizations and community

[19] US Global Change Research Program, 'Monitoring Change in Alaska and the Arctic', available at https://www.globalchange.gov/highlights/monitoring-change-alaska-and-arctic. Climate change in the Arctic and Boreal Region is unfolding faster than anywhere else on Earth and work is being done to see how Wildfires and melting permafrost are progressing and changing patterns.

[20] See M.P. Nico, 'The Recognition of International Protection to Environmental Migrants in the Recent Orientation of Corte di Cassazione', in L. Ruggeri and K. Zabrodina eds, *Making Production and Consumption Sustainable: A Global Challenge for Legislative Policies, Case Law and Contractual Practices. Guidelines for changing Market* (Wien: SGEM, 2023), 627-644.

groups to revive many of the language and cultural skills that are best preserved by the generation of elders, yet these knowledge bearers are passing away with time.[21] Considered in some countries as 'national treasures or national assets', often the elders reside on their ancestral lands and their knowledge and transmission of it is tied directly to that land. When forced to leave due to changes in subsistence food or fur hunting, the increasing patterns of effects of climate change, or the destruction of homes from extreme weather events, then culture, or the ability to transmit it to younger generations, ultimately vanishes.

There is no way for pricing *per se* to compensate, mitigate, or reclaim traditional culture when it disappears. Even in cases where oppressed groups demand historical restitution funds based on race (such as African Americans for reparation for US slave labour or the German Democratic Republic making transfer payments to first and second generation Holocaust victims), reparations may make up financially for lost wages and/or property stolen, but will not restore forgotten or lost heritage.

In March 1994, Judge Russell Holland found no base for financial compensation for the damage to Alaskan Native culture of the local Chugach tribes, stating that 'Alaskans have the right to lead subsistence lifestyles, not just Alaska Natives'. He went on to add that 'Neither the length of time in which Alaska Natives have practiced a subsistence lifestyle nor the manner in which it is practiced makes the Alaska Native lifestyle unique'. Quite simply, he noted that the choice to 'engage in activities is a lifestyle choice that was made before the spill and was not caused by the spill'.[22]

Nevertheless, it is notable that environmental and social analysis has recently received increased attention, as in the case of the Willow Project. The Willow Project is an approximately $7 billion proposal by ConocoPhillips to drill for oil and gas in Alaska. It would be located in the National Petroleum Reserve Alaska, a 23-million-acre (93 million hectare) area on the North Slope. The full project was initially approved by the Trump administration years ago, but a federal judge in Alaska overturned that decision in 2021, saying that the environmental analysis was flawed and needed to be redone.[23] Biden's Interior Department scaled back the project to reduce its impact on the habitat of species like the polar bear and

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[21] Denakkanaaga is an Alaskan 501c3 non-profit that acts on the Elders' behalf, working to ensure that their concerns are addressed regarding teaching young people such things as native cultures, traditions, languages, subsistence food, and social issues. Available at https://www.denakkanaaga.org (last visited August 2024).

[22] E. Rhoan, 'The Rightful Position' 20 *San Joaquin Agricultural Law Review*, 181 (2011).

[23] *Sovereign Inupiat for a Living Arctic* v *Bureau of Land Mgmt.*, 3:20-cv-00290-SLG (D. Alaska Aug. 18, 2021).

the yellow-billed loon[24], but decided to allow it to move forward, taking into account the important revenue that it would have brought to Alaska's local governments and communities, including in terms of infrastructures and jobs.[25] Environmental groups remain concerned about the decision, arguing that the project does not meet the goal of a clean transition.[26] Either way, the case is certain to represent a first and timid attempt to balance corporate and community interests in the US energy sector.

III. Negative Externalities of Renewable Energy Production on Local Communities: The Case of Sweden

In the latest National Climate and Energy Plan submitted to the Commission under Regulation 2018/1999/EU on the governance of the Energy Union and climate action, Sweden plans to achieve a renewable energy share of 67% by 2030.[27] This is a very ambitious target considering that only 10 of the 27 Member States submitted an update of their plan by the deadline of 30 June 2024, and that the average of the renewable energy shares reported by the remaining Member States is 37.2%.[28] Nevertheless, in its recommendations adopted at the end of the European semester, the Council of Europe calls on Sweden to develop its untapped renewable energy potential by reducing emissions from road transport and

[24] More information is available at https://www.doi.gov/pressreleases/interior-department-substantially-reduces-scope-willow-project.

[25] See https://www.conocophillips.com/sustainability/sustainability-news/story/responsibly-developing-alaska-s-willow-project/, where the company involved in implementing the project reaffirms its commitment to the integration of sustainability, stakeholder engagement and biodiversity.

[26] See, among others, https://www.greenpeace.org/usa/news/greenpeace-usa-among-groups-suing-to-stop-the-willow-oil-project-in-alaskas-western-arctic/. In any case, the Biden Administration's approval has been upheld by the federal judge of Alaska.

[27] cf. Sweden National Climate and Energy Plan (30 June 2024) available at https://commission.europa.eu/document/download/26d2c93e-641d-489f-a160-a7052fde58bb_en?filename=SE_FINAL%20UPDATED%20NECP%202021-2030%20%28English%29.pdf (last visited 23 September 2024).

[28] The national energy and climate plans (NECPs) were introduced by the European Parliament and Council Regulation 2018/1999/EU on the governance of the energy union and climate action, agreed as part of the Clean energy for all Europeans package which was adopted in 2019. The national plans outline how the EU countries intend to address the five achievements of the energy union: decarbonization, energy efficiency, energy security, internal energy market, research, innovation and competitiveness. This approach requires a coordination of purpose across all government departments, and it provides a level of planning that will ease public and private investment. The National Climate and Energy Plans are available at https://commission.europa.eu/energy-climate-change-environment/implementation-eu-countries/energy-and-climate-governance-and-reporting/national-energy-and-climate-plans_en (last visited 23 September 2024).

streamlining permitting procedures for the development of renewable energy, especially offshore and onshore wind.[29]

Hydropower and bioenergy are the main renewable energy sources in Sweden: hydropower for electricity generation and bioenergy for heating. Wind power capacity has increased significantly over the last decade. Recent studies show that the Swedish electricity generation system can reach 100% renewable energy by tripling wind capacity in combination with existing hydropower. Based on the current growth rate of wind power installations, the target could be reached within 20 years, as planned by the Swedish government, which aims to produce 100% renewable energy by 2040.[30]

However, some have already pointed out that wind farms will restrict the reindeer herders from moving and will endanger the reindeer themselves.[31]

Sweden is also fertile ground for research into critical raw materials, which are of strategic importance for the EU, but characterized by a high supply risk. In April 2024, the European Union adopted Regulation 2024/1252/EU, known as the Critical Raw Materials Act. The main aim of this legislation is to maintain the Union's resilience[32] by ensuring that 10% of the raw materials needed to build the equipment for the energy and digital transition are extracted in the EU. In this way, the Critical Raw

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[29] The recommendations for each Member States are available at https://www.consilium.europa.eu/en/press/press-releases/2024/07/16/european-semester-2024-council-agrees-on-country-specific-recommendations/. For Sweden, we can read: 'Even though Sweden has the EU's highest share of renewables in total energy consumption, it still has an untapped potential for renewables. This potential could be harnessed to accommodate the ongoing electrification of industries in the south of Sweden, and the innovative, green industrial developments and decarbonisation in the north of Sweden, which require even greater electricity production. There are still several obstacles to expanding the countryside's renewable energy production capacity. This could result in Sweden not allowing its envisaged expansion of wind capacity by 13 GW and of solar power capacity by around 5 GW between 2021 and 2030. One such obstacle is permitting barriers for both offshore and onshore wind power. These barriers emanate from inefficient permitting procedures and veto rights of communes and defence authorities, among other things' (last visited 23 September 2024).

[30] Z. Jin et al, 'Towards a 100 % Renewable Energy Electricity Generation System in Sweden' 171 *Renewable Energy*, 812-824 (2021).

[31] A. Szpak, 'Relocation of Kiruna and Construction of the Markbygden Wind Farm and the Saami Rights' 22 *Polar Science* (2019).

[32] To understand what the European Union means by the concept of resilience, see 2020 Strategic Foresight Report – European Commission (available at europa.eu). The report analyses resilience along four interrelated outcomes – social and economic, geopolitical, green and digital – and explores its relevance for achieving long-term strategic goals in the context of the digital, green and fair transition. In particular, with regard to critical materials for the construction of technological devices used in the energy transition, the concept of resilience is directly linked to that of the value chain, with most of the supply required to take place in the European Union (last visited 23 September 2024).

Materials Act leads to an increase in mining activity on already fragile land, while tending to reduce the EU's reliance on third countries (namely, China).

In January 2023, the Swedish mining company LKBA announced the discovery of Europe's largest deposit of rare materials – key tools for the production of renewable energy technologies – in Kiruna. Kiruna is one of twelve mines in the Sami area of northern Sweden. The announcement could seem crucial for the Union's energy future. But the indigenous people who live there claim that these mines and the infrastructure that supports them have caused pollution, devastated ecosystems, poisoned the lichen that reindeer eat and removed them from grazing lands.[33]

Reindeer husbandry is considered a common good. The protection of reindeer husbandry is expressed both in various national laws and in the international obligations to protect the rights and culture of the Sami people as an indigenous people and a national minority.[34]

For these reasons, as early as February 2022, UN human rights experts urged Sweden not to approve an iron mine in the Gállok region, home of the indigenous Sami people, because the mine would generate large amounts of pollution and toxic waste and endanger the ecosystem, including reindeer migration.[35]

Electrification has its drawbacks.[36]

Of course, the electrification process that the European Union is striving for cannot override the protection of the rights of local communities. The just energy transition must not undermine the rights of people and local communities. Indigenous peoples and their knowledge are indispensable for the sustainable management of natural resources and the conservation of biodiversity, both of which are essential for fighting climate change and achieving the Sustainable Development Goals.

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[33] See K.N. Pilflykt, 'Sámi rights must not be sacrificed for green energy goals of Europe (commentary)', available at mongabay.com (last visited 23 September 2024).

[34] The current Reindeer Herding Act (1971) states that people of Sámi ancestry can be members of a Sámi reindeer herding community and, as such, also having the right to herd reindeer and other rights, such as fishing, hunting, etc. On this point, see R. Nilsson, 'The Consequences of Swedish National Law on Sámi Self-Constitution: The Shift from a Relational Understanding of Who Is Sámi Toward a Rights-Based Understanding' 19(3) *Ethnopolitics*, 292-310 (2019).

[35] The full order is available at https://www.ohchr.org/en/press-releases/2022/02/sweden-open-pit-mine-will-endanger-indigenous-lands-and-environment-un (last visited 23 September 2024).

[36] Electrification is one of the fundamental objectives of the European Union, which aims to reduce dependency on fossil fuels from third countries. The drafting of an Electrification Action Plan is one of the main missions of the new Commission. More information can be found at https://commission.europa.eu/document/download/1c203799-0137-482e-bd18-4f6813535986_en?filename=Mission%20letter%20-%20JORGENSEN.pdf (last visited 23 September 2024).

Development is sustainable when it promotes and protects the human person. Sustainability is indeed an expression of solidarity.[37]

In order to protect local communities, some municipalities have started to express their 'veto' on the development of renewable energy projects.[38] As a result, on 9 September 2024, the Swedish government included a package of measures in the 2025 Budget Act that balances the development of energy transition with the rights of local communities. In particular, the government proposes to invest more than SEK 1 billion to ensure a higher and more secure energy supply and to promote the green transition. Part of these funds are earmarked for investments in electricity generation, energy storage, energy efficiency and flexibility services. On the other hand, municipalities will be compensated for the expansion of wind power by increasing the property tax on wind turbines. The support to municipalities will be equal to the full amount of property tax generated by wind energy. The income is estimated at SEK 340 million in 2025, SEK 370 million in 2026 and SEK 400 million in 2027. The government also wants to ensure that the local community shares in the income generated by the wind farm. It is assumed that citizens living near the new wind turbines will receive a share of the revenue in proportion to the value of their property if the wind farm had not been built.[39]

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[37] P. Perlingieri, 'I diritti umani come base dello sviluppo sostenibile. Aspetti giuridici e sociologici' *Rivista giuridica del Molise e del Sannio*, 1, 11 (2000), Lezione Inaugurale del IV Corso multidisciplinare universitario di educazione allo sviluppo 'Vivere il duemila', held at the University of Sannio on 10 January 2000. In the essay, the author explains how 'human dignity and human rights become (...) the basis of sustainable development'. Thus, also, D. Cambou, 'Uncovering Injustices in the Green Transition: Sámi Rights in the Development of Wind Energy in Sweden' 11 *Arctic Review on Law and Politics*, 310-333 (2020), who calls for a 'human rights-based approach to sustainable development that puts emphasis on the rights of Indigenous peoples and other marginalized communities as an avenue to promote social justice'.

[38] According to a new report from the Swedish Wind Energy Association, the so-called municipal veto and the armed forces stopped almost all ongoing wind energy projects in the first half of 2024. At the same time, the municipal veto was the main reason why none of the eleven applications for wind energy on land and in territorial waters that were finally decided on in the first half of the year were approved. The report is available at https://svenskvindenergi.org/pressmeddelanden/nastan-alla-vindkraftsprojekt-stoppades-forsta-halvaret-2024 (last visited 23 September 2024).

[39] The press release announcing the new regulatory package and the mechanism by which it will be financed is available at https://www.regeringen.se/pressmeddelanden/2024/09/satsningar-pa-elektrifiering-och-gron-omstallning/ (last visited 23 September 2024). On this point, see D. McCauley, T. Field, R. Heffron and I. Todd eds, *The Future of Just Transitions* (Cheltenham, UK: Edward Elgar Publishing, 2024), 11, according to which 'Regulations are an important tool for ensuring that all communities have equal access to clean energy resources regardless of income or geography. For example, regulations could require utility companies to provide incentives for low-income households or rural areas who adopt solar panels or other renewable technologies'.

From a civil law perspective, there is a growing trend for agreements to be signed between local communities and project promoters concerning the use of land and natural resources. A recent study carried out by the Stockholm Environment Institute, the Sustainability Learning and Research Center, Department of Women's and Children's Health, the Eajran Sïjte and Tuorpon Reindeer Herding Community, the Advokat Inger-Ann Omma AB, and the School of Government and International Relations of Griffith University (Brisbane, Australia), in cooperation with the Swedish Sámi Association, has analysed some of these agreements and the main contractual clauses.[40] More than half of the agreements contain clauses requiring the investor to develop measures to reduce reindeer damage, for example by using ecoducts or by designing safe crossings. However, the most common approach was to allow the developer to offer fixed financial compensation. In other cases, albeit a minority, developers agreed to inform or listen to the reindeer herders, although they did not commit to giving the Sami any real influence over decisions. As far as dispute resolution is concerned, mediation seems to be the preferred approach because it is cheaper.

Although the study notes that in some cases local communities are still the weak party of the agreement, the development of agreements can be a method for indigenous groups to become 'proactively' involved in the governance of the resources.[41]

To this end, it should be noted that the Sami, by virtue of their status as indigenous peoples, have access to individual and collective rights under international human rights law, enshrined in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) of 2007, which are based on the principle of self-determination.[42] The principle of self-determination recognizes the rights of indigenous peoples to their ancestral lands and the natural resources they contain. As a result, indigenous peoples must be involved in the decision-making process.

In 2015, the Swedish government adopted a National Action Plan (NAP) on business and human rights, which requires extractive companies to consult with stakeholders, including Sami communities, and to carry out environmental impact assessments (EIAs).[43] However, these are voluntary

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[40] For full research results, see R. Kløcker Larsen et al, 'Negotiated Agreements and Sámi Reindeer Herding in Sweden: Evaluating Outcomes' 37(7) *Society & Natural Resources*, 981-999 (2024).

[41] See J. Saloranta and A. Hurmerinta-Haanpää, 'Proactive Contract Theory in the Context of Corporate Sustainability Due Diligence' 6(3-4) *Journal of Strategic Contracting and Negotiation*, 221-236 (2022).

[42] Available at https://www.ohchr.org/en/indigenous-peoples/un-declaration-rights-indigenous-peoples (last visited 23 September 2024).

[43] The National Action Plan on Business and Human Rights draws inspiration from the UN Guiding Principles on Business and Human Rights, according to which

practices that are wholly insufficient to ensure full compliance with the international human rights framework and to prevent business-related violations.

In this sense, Directive 2024/1760/EU on corporate sustainability due diligence is a turning point, as it is extremely useful for the protection of the Sami and the strengthening of their negotiating power. [44]

The Directive requires companies to monitor, prevent, and mitigate adverse impacts of their production on human, social, and environmental rights throughout the whole value chain. The Directive identifies local communities among stakeholders,[45] ie those likely to be affected by the activities addressed by the Directive, and sets out for local communities, as stakeholders, a set of rights including the right to adequate access to information, the right to consultation, the right to participate in decision-making,[46] as well as the right to complain.[47]

In addition, it must be read and interpreted in a systematic way in the context of Directive 2018/2001/EU (the Renewable Energy Directive), Art 15 of which explicitly states that Member States must ensure public participation to designate renewable acceleration areas and must promote public acceptance of renewable energy projects through the direct and indirect participation of local communities in such projects.

The European Union recognizes public participation as essential. As stated in the 2024 State of the Energy Union Report, the energy sector needs to accelerate to meet the EU's ambitious targets.[48] But working with local citizens is indispensable if the energy transition is not to be

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'businesses' human rights efforts are expected to establish an integrated and ongoing process in the company to identify, prevent and manage human rights risks and opportunities, as appropriate to the size, nature and context of the operations, i.e. due diligence'. The plan is available at https://globalnaps.org/country/sweden/ (last visited 23 September 2024).

[44] On this argument J. Blazej Zwierzchowsky and E. Rott-Pietrzyk, 'The Sustainability Obligation in Value Chain Contracts', in M. Santos Silva, A. Nicolussi, C. Wendehorst, P.S. Coderch, M. Clément and F. Zoll eds, *Handbook of Private Law and Sustainability* (New York: Routledge, 2024), 564. See also R. Cavalli, 'Contract Law and Sustainability of Global Value Chain: Assessing the Proposal for an EU Corporate Sustainability Due Diligence Directive from a Contract Law Perspective', in M. Santos Silva, A. Nicolussi, C. Wendehorst, P.S. Coderch, M. Clément and F. Zoll eds, ibid, 580; S. Ciacchi, 'The Newly-adopted Corporate Sustainability Due Diligence Directive: An Overview of the Lawmaking Process and Analysis of the Final Text' 25 *ERA Forum*, 29-48 (2024); V. Marano et al, 'Multinational Firms and Sustainability in Global Supply Chains: Scope and Boundaries of Responsibility' 55 *Journal of International Business Studies*, 413-428 (2024).

[45] Art 2, para 1, letter (n) of Directive 2024/1760/EU.

[46] Art 13 of Directive 2024/1760/EU.

[47] Art 14 of Directive 2024/1760/EU.

[48] Art 3, para 1 of Directive 2018/2001/EU imposes on Member States the obligation to collectively achieve a 42.5% share of renewable energy production by 2030, with an aspiration of up to 45%.

compromised by concerns about landscape, biodiversity, cultural heritage and lifestyles, particularly in rural areas.[49]

In this perspective, Sweden should strive for a complete transposition of the European legal framework on Renewable Energy Communities (RECs).[50] In fact, the European Directive has not yet been transposed, on the grounds that the Swedish legal framework enables the establishment of energy communities irrespective of the timely transposition of the European regulation.[51] On the contrary, it would be preferable to implement the Directive and, in particular, the provision that sets out the purpose of an energy community, which is to generate environmental, economic and social benefits rather than financial profit. Explicit implementation could build trust and contribute to the effective acceptance of renewable energy projects by local communities, making them real actors of the energy market.

In essence, the need to integrate human rights into renewable energy policies is at the heart of the energy transition. This need could be fulfilled by ensuring that indigenous communities are consulted and give their consent before any energy project affects their land, by conducting assessments to understand the cultural significance of the land to indigenous peoples, by providing training and education, or by developing models where indigenous communities receive a fair share of the benefits of energy projects, such as revenue sharing, job creation and infrastructure development.[52] In this sense, the energy transition is approached from a human rights perspective, with the aim of redressing existing inequalities and enabling social inclusion.[53] Hence, the involvement of local

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[49] State of the Energy Union Report 2024, 7, available at https://energy.ec.europa.eu/publications/state-energy-union-report-2024_en (last visited 23 September 2024).

[50] Art 22 of Directive 2018/2001/EU.

[51] P. Holmberg and T.P. Tangerås, 'The Swedish Electricity Market – Today and in the Future' 1 *Sveriges Riksbank Economic Review* (2023). Sweden states that the legal framework is to be considered implemented through Act SFS 2018:672 on economic associations, but in fact SFS 2018:672 is not sufficient. Firstly, because the Directive opts for freedom of contract for the establishment of energy communities. Secondly, in the case of economic association, the interests of the members of the community could override social and environmental interests if the statutes do not provide otherwise. More information on the Sweden legal models is available at https://social-economy-gateway.ec.europa.eu/my-country/sweden_en (last visited 23 September 2024). See, also, J. Palm, 'The Transposition of Energy Communities into Swedish Regulations: Overview and Critique of Emerging Regulations' 14 *Energies*, 4982 (2021).

[52] J. Carling, 'Human Rights and Indigenous Peoples in Just Energy Transitions', in Development Co-operation Report 2024: Tackling Poverty and Inequalities through the Green Transition (Paris: OECD Publishing, 2024).

[53] See on this point D. McCauley, T. Field, R. Heffron and I. Todd eds, *The Future of Just Transitions*, n 35 above, 11, 14, according to which 'just transition aims to ensure that the shift towards a more sustainable energy system considers the needs and concerns of all affected communities, including workers in industries that may be impacted by this

communities in transition projects and processes serves to ensure energy justice,[54] to guarantee the acceptance of energy policies, to reduce the risk of conflict and, ultimately, to avoid delays in achieving energy goals while ensuring that no one is left behind.

IV. Conclusion

Electricity, whether generated from non-renewable or renewable sources, produces negative externalities. These are likely to have a negative impact on local communities and on the common goods, of which local communities are custodians.

There is growing debate within the scientific community about common goods, and there are still uncertainties about legal protection.

The analysis in this paper has highlighted the diversity of remedies adopted by the United States and the European Union.

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transition. This means considering issues such as job creation, retraining programs, and support for communities that rely on industries like coal mining or oil extraction'. Indeed, 'the concept of a "just transition" recognizes the potential social and economic impacts of this shift and seeks to ensure that the benefits and burdens are equitably distributed. One major challenge in achieving a just transition is the siting of new renewable infrastructure. While renewable energy sources such as solar and wind power may seem like cleaner alternatives to fossil fuels, they can still be controversial if not planned and executed properly. (...) To balance the need for rapid decarbonization with concerns about social justice and economic stability, it is important to consider these potential impacts from the outset of planning for new renewable infrastructure. This includes engaging with affected communities early on, ensuring that they have a voice in decision-making processes, and providing adequate compensation or support for any displacement or loss of livelihoods.

[54] On this point, see K. Jenkins, D. McCauley, R. Heffron, H. Stephan and R. Rehner, 'Energy Justice: A Conceptual Review' 11 *Energy Research & Social Science*, 174-182 (2016), according to which 'local communities, such as the indigenous Sami people, are scattered across mostly the northern parts of Norway, Sweden, Finland and Russia (all Arctic states) and are living off fishing and reindeer herding. Thus, such communities are heavily dependent on the local ecosystems. Early intervention is paramount to an effective consultation process, and thus the engagement of local communities is an imperative with regards to procedural justice aspects'. To better understand what energy justice means, see R.J. Heffron, *The Challenge for Energy Justice* (Switzerland: Springer, 2021), 3, where he explains that 'energy justice is centred on: the normative aim of contributing to make the world a better place, i.e., a more just and sustainable world; it is based on five core justice philosophies which are procedural, distributive, restorative, recognition and cosmopolitan justice; and its definition is that it is about applying human rights across the energy life cycle'. On this point, see also L. Casalini, 'Legal Profile of First Renewable Energy Communities in Rome, "Le Vele": Rethinking Energy for a Social and Urban Regeneration', in L. Ruggeri and K. Zabrodina eds, *Making Production and Consumption Sustainable: A Global Challenge for Legislative Policies, Case Law and Contractual Practices. Guidelines for changing Market* (Wien: SGEM, 2023), 430, where the authors discuss energy as 'an intangible common good, capable of sparkling solidarity, inclusion and social relations'.

In the case of Alaska, the community has been granted judicial protection and compensation for damages, including punitive damages. One of the most important results was also the rapid response of the US Congress, which amended the Clean Water Act of 1972 under the Oil Pollution Act of 1990 (33.U.S.C. 2701-2761), forcing the oil industry itself to fund the Prince William Sound Regional Citizens' Advisory Council as the first federally mandated watchdog group. It has been successful in working within the local community to negotiate with the oil industry for the implementation of more protective technologies and practices. However, it has been pointed out that compensation is limited by the practical incommensurability of the damaged interests. In the case of a spill of oil, used as a fossil fuel for energy, it is not easy to determine who should pay and how much should be paid to internalize the costs of restoring destroyed ecosystems, oil on beaches and health problems caused by carcinogens and volatile organic compounds used in the clean-up process. Moreover, in the case of fossil fuels, whose negative externalities may be of global relevance, in terms of compensation, it may be very difficult to identify both those responsible and the victims.

Regarding Sweden, the analysis of the negative externalities generated by the production of renewable energy leads to the adoption of legislation that seeks to strike a fair balance between the general interest of the energy transition and the interests of those who might be affected by it. In addition, negotiated solutions with the direct involvement of the local community are pursued.

The European approach seems more in line with the theory of the commons. The institutions of common goods function by directly empowering their users to seek a system of rules inspired by the effective and preventive protection of the common goods.

Common goods are also better protected in the case of negative externalities generated by renewable energy. The transition from fossil fuels to renewables allows for a preventive and precautionary balance of interests that maximizes the benefits of energy and climate action while minimizing the negative impacts on people and their communities. Indeed, phasing out fossil fuels and expanding renewable energy solutions can have a significant impact on local economies and cultures. Early engagement with local communities must therefore be not only a priority, but also a shared value on the road to a clean energy transition.

Circulative Bottom-Up Processes for Sustainable Development as a Prosumer: Lesson Learned from Asia

Kozue Kashiwazaki*

Abstract

This paper discusses the relationship between economic and urban development through case studies in Asia. Firstly, it introduces housing issues and regional disparities due to rapid urbanization in Asian countries, with a case study in Thailand. To consider sustainable development to support the next stage to review lifestyle, this study then introduces a new business model from a Japanese small enterprise as an advanced case. Through the subsequent impacts of bottom-up processes, the expanding cycle demonstrates a further vision of the potential of sustainable development.

Keywords

Buy One Give One, Solar Lantern, Prosumer, Disparity, Asia.

I. Introduction

Historically, Japan maintains a form of sustainable business mentality called *Sampo-Yoshi* originally adopted by Omi merchants who were from Shiga Prefecture mainly during the Edo and Meiji periods from 1600. *Sampo-Yoshi* means *three-way satisfaction*. The merchants emphasized that business should be beneficial to three parties, namely, the seller, the buyer, and the local community, and consequently it would deliver more in the future. This thought was accepted and respected throughout the country. In fact, many businesses today continue to follow this mindset as company policy. However, the wave of globalization and informatization has surpassed such small business minds, so that recognizing this mindset in real life, especially in urbanized cities, is becoming difficult.

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Nowadays, the changes are more striking in the developing counties of Asia. This study first conducts a review of the recent rapid urbanization and related issues at the macro and micro levels. Chapter II then introduces the case of Thailand, which has experienced rapid urbanization and widening disparity, and presents narratives of struggle among poor local communities. Chapter III proposes a new business model by a company in Tokyo classified as a small and medium-sized enterprise (SME). Through case studies of the project, the study takes the lessons learned from new bottom-up processes and the cycle to elucidate the potential of sustainable development from the perspective of *Sampo-Yoshi* that promotes the concept of prosumers beyond the disparities between the urban and rural, the consumer and producer, and the giver and receiver.

II. Development and Disparity

1. Two-Line Patterns of Urban Growth

The growth of the population of mega cities worldwide since 1950 is evident (Figure 1), as evidenced on the cover of the *Journal of the Architectural Institute of Japan* issued in January 2011 with the title 'Future Slums – in Prospect for Urbanization'. The topic confronts us with the startling global question of how to handle urbanization, sustainability, and ecology.[1]

As Figure 1 shows, in the beginning, New York was the biggest city with a population of approximately 12 million in 1950. Within a few years, Tokyo became the biggest mega city as a metropolitan region through major economic growth until the 2000s. A notable aspect is that there are two patterns of growth. The first is the relatively high rate in developing countries (e.g., Delhi and Mumbai in India, Sao Paulo in Brazil, Kolkata in India, Shanghai in China, Karachi in Pakistan, and Buenos Aires in Argentina) shown as pink lines. The second is the comparatively slow growth rate in developed countries such as New York City, Los Angeles, and Chicago in the United States, Paris in France, Moscow in Russia, and London in the United Kingdom as blue lines.

The topic of the journal emphasizes that the different line patterns indicate that Tokyo in Japan experienced rapid urban growth which developing countries had faced 50 years previously. An aspect that requires careful consideration is the experience of Japan in terms of gains and

[1] The *Journal of the Architectural Institute* is the oldest academic journal in Japan issued from 1887. Available at https://www.aij.or.jp/eng/journal/journal.html (last visited 30 August 2024). Selected references include: M. Davis, *Planet of Slums* (USA: Verso, 2006); M. Hosaka, *Asian Cities and Our Living* (Tokyo: Akaishi Shoten, 1994); M. Mostafavi and G. Doherty, *Ecological Urbanism* (Zurich: Lars Mueller, 2010); and R. Narita, *Cultural Experience in Modern Urban Spaces* (Tokyo: Iwanami Shoten, 2003).

losses as a result of rapid development, which can be reviewed for the benefit of cities in developing countries that are currently facing severe urban issues such as overcrowding, traffic jams, disaster risks, urban sprawl, environmental deterioration, loss of historical heritage, and pollution.

These urban issues commonly lead to social and cultural problems, most notably the corrupting of local communities by their new lifestyle with convenience goods and services. Citizen no longer seem to need relationships with neighbours. In the case of major cities in developed countries, people are seeking to move away from cities to acquire a better quality of life. However, in Japan, concentration of the population in the Tokyo metropolitan area is continuing, drawing on the strength of high technology. Nowadays, the risk of a super aging society in Tokyo is a serious concern.

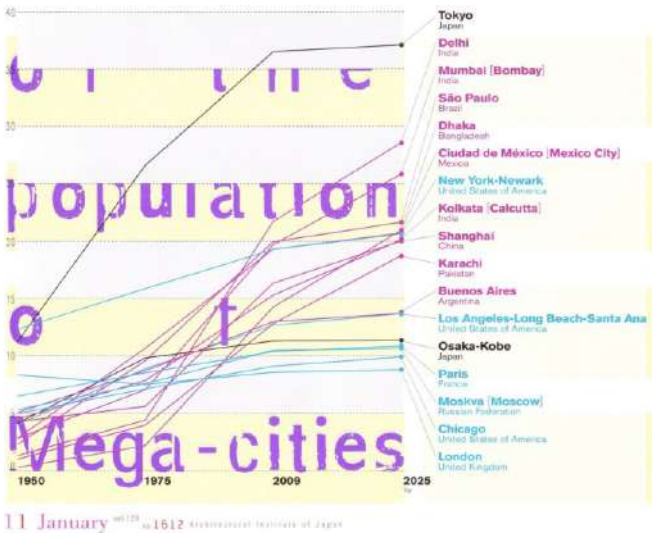

Figure 1: Population Growth of Mega Cities Since 1950[2]

In the field of urban planning, slums are recognized as a historical urban issue, characterized by sprawling urbanization, and can be an obstacle to proper urban management worldwide. Slums, that is, settlements outside the scope of urban planning frameworks, have been viewed as an undesirable problem. Although many plans and projects, such as eviction and relocation, are implemented under development mainly led by the government, the total number of such informal settlements continues to rise in developing countries.[3]

[2] Architectural Institute of Japan, *Future Slums – in Prospect for Urbanization* (Tokyo: AIJ, 2011) (in Japanese), 124, 1612.

[3] United Nations, *Implementation of the Outcome of the United Nations Conference*

On the other hand, there is recognition that urban planning is facing a paradigm shift from 'government to governance', which promotes a bottom-up planning system and involves all stakeholders. The development of urban informal settlements mainly focuses on cooperation with governments and community-based organizations, although large gaps exist between the formal and informal sectors. Some academic circles consider that a practical evaluation and examination of this partnership process are required for further sustainable urban development.[4]

The concept of partnership can be considered as one of the methods for development through governance. Although many definitions of the term exist by case and by region, a commonly recognized one is that it is a 'process of shared resources and responsibility by independent organizations in the long term'. This came into prominence as a concept of new public management in the United Kingdom in the 1980s[5] with the objective of slimming down government bodies and accepting the various needs of residents. A best-selling book in the United States *Reinventing Government* (1992)[6] promoted the need to recognize that implementing actors are composed not only of the local government but also of the private sector, non-government, non-profit, and people's organizations.[7] Through conceptual and practical reviews, discussion on partnership tends to identify the importance of the following topics: the necessity of a comprehensive framework for physical construction; the difficulty of reaching mutual agreements based on varying forms of private profit; the lack of a formal right to decision-making within community-based organizations; and the difficulty of formulating an overall opinion in one community through people's organization.[8]

In the case of developing countries, the concept of partnership for governance was mapped out by developed countries in the context of an assessment on international aid from the late 1990s. Although many development policies employed the concept at the national and regional levels, practical discussion and evaluation tended to be limited to partial

on Human Settlements (Habitat II) and Strengthening of the United Nations Human Settlements Programme (UN-Habitat): Report of the Secretary General (A/61/262) (New York: United Nations, 2006).

4 N. Devas, P. Amis, J. Beall, U. Grant, D. Mitlin, F. Nunan and C. Rokodi, *Urban Governance, Voice and Poverty in the Developing World* (UK: Earthscan, 2004).

5 H. Yamamoto, *Local Government and Local Governance* (Tokyo: Hosei University Press, 2008) (in Japanese).

6 D. Osborne and T. Gaebler, *Reinventing Government: The Five Strategies for Reinventing Government* (USA: Penguin Publishing Group, 1992, reprinted 1993).

7 N. Devas et al, n 4 above.

8 Y. Nawata, 'Institutionalization of Community and the Patterns in Modern Japan: Self-government of Community', in *International Comparison of Decentralization and Partnership in Self-government Bodies* (Tokyo: Nippon Hyoron Sha, 2009) (in Japanese), 15-43.

structural systems and issues[9] such as irrational budgeting and corruption by politicians. In practice, large socio-economic disparity may also impede further communication to build relationships between stakeholders.[10]

2. The Case of Thailand

The disparity between the poor and rich is becoming severe in developing countries in Asia. Many slum and squatter settlements can be found in cities. An increasing number of migrants move to cities from rural areas and, occasionally, beyond the borders due to the pull of cities seen in the concentration of job opportunities and social services. As the Land of Smiles and an attractive destination for foreign tourists, Thailand was unfortunately nominated as one of the countries with the highest rates of economic disparity by Credit Suisse in 2018.[11] It was reported that approximately 1% of the population is rich, while 67% own property.

3. Rapid Urbanization in Bangkok

The capital city of Thailand, Bangkok, is one of the mega cities in Asia and is home to a population of more than 9 million, which comprises 13% of the national population (2021). Urbanization has spread rapidly alongside globalization since the 1980s. Similar to the experience of other developing countries, informal settlements or slums have emerged due to the large number of migrants without proper accommodation and social services, including education and training. Although the number of slums reached over 1,200 in 2008, NGOs estimated the figure to be over 1,700. Figure 2 shows that the locations of slum communities are expanding from the city centre to the suburbs.

[9] S. Odugbemi and T. Jacobson eds, *Governance Reform under Real-World Conditions: Citizens, Stakeholders, and Voice* (USA: World Bank, 2007), 277-330.

[10] N. Hataya, *Urban People's Organization in Developing Countries: Role in the Development Society* (Tokyo: Institute of Developing Economies, 1999), 493, 14-17.

[11] Credit Suisse, *Global Wealth Databook 2018* (October 2018), available at https://www.credit-suisse.com/media/assets/corporate/docs/about-us/research/publications/global-wealth-databook-2018.pdf (last visited 9th June 2024).

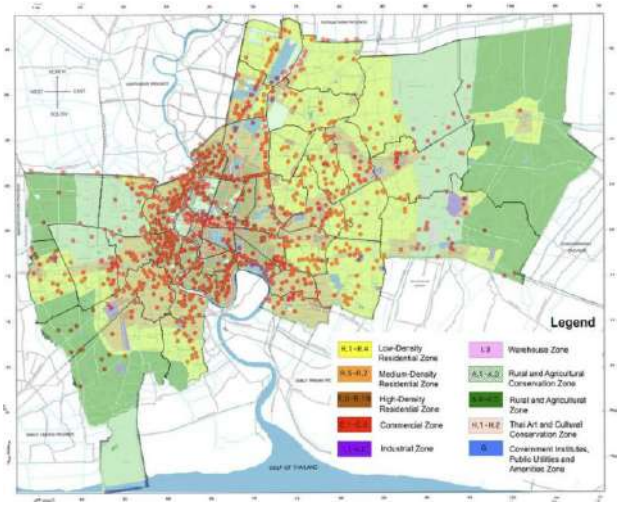

Figure 2: Comprehensive Plans and Locations of Slum Communities in Bangkok[12]

The Bangkok Metropolitan Administration (BMA) initiated the registration of communities under the Act of Community Committee Management in 1985 via the BMA law. The Department of Community Development conducts the management of 50 district offices. In exchange for a monthly budget (5,000 baht in 2009) to all registered communities irrespective of the size of the population, the Committee is obligated to submit a monthly report with evidence and attend monthly meetings at the district office.

In the Thai language, community is called c*humchon*, which the BMA categorizes into five types of community, namely: slum, urban, public housing, privately developed, and suburban communities (Table 1). Additionally, high-rise communities have been considered a new category since 2015. By 2016, the total number of communities reached 2,069 with a population of 2,103,277 composed of 411,432 families and 331,175 households, which cover 18.2% of the total population in Bangkok. Given the changes from 2011 to 2016, the number of typically poor (slum) communities decreased from 797 to 682, which indicates that these communities were relocated or upgraded. Public housing communities also decreased by nearly half, that is, from 119 to 68. The form of housing called *flat* is not shown under the expanding redevelopment, especially the construction of condominiums for the rich. In contrast, the number of urban communities increased from 287 to 457.

[12] Bangkok Metropolitan Administration: the author's GIS data analysed from address information given by the National Housing Authority (NHA) in Thailand for 2001.

Table 1: Definition and Number of Communities in the Bangkok Metropolitan Area[13]

Category	Definition	2011	2016	
Slum communities	Highly dense and disorderly, issues include living environment, especially security and sanitary; 15 households/1,600m^2.	797	682	33.0%
Public housing	Medium-high apartments developed by the National Housing Authority. BMA installed drainage, garbage collection, roads, sanitary facilities and so on.	119	68	3.3%
Urban communities	Located in urbanized areas; household density is lower than for slums and higher than for suburbs.	287	457	22.1%
Privately developed communities	Detached houses, town houses, and apartments developed by private companies. BMA installs drainage, garbage collection, and roads, among others.	365	358	17.3%
Suburban communities	Partially agricultural activities; vulnerable to natural disasters, such as floods, due to incomplete infrastructure.	420	420	20.3%
High-rise communities	Since 2015	NA	84	4.1%

The review of development projects implemented from 1960 to 2006 reveals that the major actor of planning and projects shifted from the central government to public organizations. The study comprehensively shows the lack of networking between the project actors and local governments and the limited rights and authority in local governments and communities.

4. The Collective Housing Programme at the National Level

Plans and projects for development in poor communities changed dramatically from the 1960s to the 2000s. Specifically, from 1960 to early 1980, the major types of projects were eviction and the relocation of slums by landowners and private developers. Since the establishment of the National Housing Authority (NHA) in 1973 to provide low-cost housing for people in the low- and middle-income brackets, large-scale relocation projects were rapidly launched and construction took place. Moreover,

[13] Edited based on data from the Department of Policy Establishment of the BMA, *Guideline for Community Development* (Bangkok: Technical and Planning Division, Office of Community Development, 1992, 2011 and 2016).

since the establishment of the Urban Community Development Organization (UCDO) in 1992, many projects for communities were set up with increased attention given to the self-development of communities under the Sixth and Seventh National Economic and Social Development Plan (1987–1997). The Community Organization Development Institute (CODI), through a merger between UCDO and the Rural Development Fund in 2000, led to the launch of bottom-up processes and people-centred projects as pilots throughout the country. At the same time, it promoted networking between communities for the sharing and learning of experiences.[14,15]

As an outstanding development programme, the CODI spearheaded the *Baan Mankong* (Secure Housing) Collective Housing Programme in January 2003. The programme channelled government funds in the form of infrastructure subsidies and soft housing and land loans directly to poor communities. It planned and implemented improvements in housing, the environment, basic services and tenure security, as well as budget management.[16] This community-driven approach enabled citizens to become core actors and to decentralize the solution-funding and implementation process to cities and communities. The CODI designated the key elements in the programme as flexible finance, saving groups, collective arrangements, horizonal support, and technical support. The types of upgrading were categorized as on-site upgrading, re-blocking, reconstruction, land sharing, and relocation.

For all types of programme, the following key steps are essential:

(1) identify stakeholders and explain the programme;

(2) organize network meetings, which may include visits from people in other cities;

(3) hold meetings in each urban community and involve municipal staff, if possible;

(4) establish a joint committee that includes network leaders, the municipality, academics, and NGOs to oversee implementation;

[14] K. Kashiwazaki and T. Kidokoro, 'A Study on the Partnership Process for the Development of Urban Informal Settlements: The Challenge of the Community Organization Council (COC) in Bangkok Metropolitan Area, Thailand' *Journal of International City Planning* (Japan: City Planning Institute of Japan, 2010), 391-400 (in Japanese).

[15] K. Kashiwazaki, 'Spatial and Social Impacts of Formalization of Community Development Activities: The Case of Bangkok, Thailand', in *Proceedings of the 3rd Conference of Asian Association of Urban and Regional Studies* (Japan: AAURS, 2011), 172-185.

[16] Community Organization Development Institute, Ministry of Social Development and Human Security, Thailand, *BAAN MANKONG – Thailand's City –wide, Community-Driven Slum Upgrading and Community Housing Development at National Scale* (Thailand: CODI, 2016).

(5) hold a meeting by the joint committee with representatives from urban poor communities;

(6) conduct a survey that includes all communities and collect information on households, housing security, land ownership, infrastructure problems, community organizations, savings activities and existing development initiatives;

(7) based on the survey, develop a plan for the entire city;

(8) during the above-mentioned process, support community collective saving, because this not only mobilizes local resources but also strengthens local groups and builds collective management skills;

(9) select pilot projects on the basis of need and the willingness of the community to implement and learn;

(10) prepare development plans for pilots, begin construction, and implement as a learning centre for other communities and actors;

(11) extend improvement processes to other communities, including those living on the fringes of society, such as the homeless and migrant workers;

(12) integrate these upgrading initiatives into city-wide development, including coordination with public and private landowners, to provide secure tenure or alternative land for resettlement; and

(13) build community networks based on common land ownership, shared construction, cooperative enterprises, community welfare, and the collective maintenance of canals and create economic spaces for the poor (e.g., new markets) or opportunities, whichever is possible, during upgrading.

By 2016, a total of 984 projects were run in 1,939 communities with 99,203 households in 348 cities in 76 provinces (out of a total of 77 provinces). The grants and loans approved were 6,670 and 8,351 million baht (USD 202 and 253 million), respectively, while the amount of community savings reached 236 million baht (USD 7.8 million).[17]

5. For the Next Stage to Create Sustainable Development

Through the experiences of community development under the concept of the Baan Mangkong programme, the study suggests that there are certainly different processes to be upgraded. Several successful pilot projects have led to the strengthening of community unity and the collection of information on social and economic activities within communities in Bangkok. These model cases are offered for review for other poor communities through networking. At the same time, a number of communities faced difficulties in the implementation of the steps due to

[17] ibid.

unexpectable events such as fires, the spread of infectious diseases, and changes of committee members.[18,19] Changes in local politicians and community leaders also led to radical differences. Kim (2022) reported that the strict restrictions during the COVID-19 pandemic led to residents changing their mind, especially about what they consumed and how much they saved.[20]

The review implied that the implementation of the development programme is time intensive, while management after construction has become increasingly important. Currently, the more important issue is how to change the mentality and behaviour of residents toward consumption and production in order to maintain the cohesion of their developed community and their living environment. To move toward a life of stability, people must reconsider their economic lifestyles.

III. The 'Buy One Give One' Project

1. The Status of Small and Medium-Sized Enterprises in Japan

Before the waves of rapid urbanization and globalization, business activities commonly emerged from their local communities on the small scale. In Japan, the Small and Medium-sized Enterprise Basic Act (Act no 154 of 1963) classifies the range of small and medium-sized enterprises according to the type of industry. For example, a manufacturing business should be a company/individual with a fund of less than JPY 300 million or less than 300 permanent employees, while a wholesale business should possess a fund of less than JPY 100 million or 100 employees. Other examples include a retail business, whose fund should be less than JPY 50 million or 50 employees, and a service industry with a fund of less than JPY 50 million or 100 employees. According to the report of the Small and Medium Enterprise Agency under the Ministry of Economy, Trade and Industry, the number of SMEs in Japan reached 33,650,000 in 2021,

[18] K. Kashiwazaki, 'Urban Communities and Sustainable Development Goals', in H. Kitawaki and A. Kaneko eds, *Evidence-based Knowledge to Achieve SDGs from Field Activities* (Japan: ASPARABOOKS, Center for Sustainable Development Studies, Toyo University, 2021), 121-133.

[19] M.N. Rahman and K. Kashiwazaki, 'Urban Poor Community Housing in Thailand: Qualitative Study on the Perceptions of Yen Akard Community Residents Regarding the Baan Mankong Program', in *Proceedings of the 17th Conference of Asian and African City Planning* (Japan: CIDUP, 2021), 124-131.

[20] K.B. Apolinar and K. Kashiwazaki, 'Impact of COVID-19 on Financial Behavior and the Housing Project in a Small-Congested Community in Bangkok, Thailand: A Case Study in Yannawa District', in *Proceedings of the 19th Conference of International Development and Urban Planning* (Japan: CIDUP, 2023), 100-108.

which comprises 99.7% of all enterprises. This number decreased from 38,090,000 in 2014, although the rate remains the same at 99.7%.[21]

Regardless of size, companies pay more attention to sustainability especially after the spread of the Sustainable Development Goals (SDGs).[22] In terms of the energy sector, small scale and off-grid supply is becoming recognized as effective support for developing counties where there are great geographical distances between communities or houses such as mountainous and desert areas, rather than large-scale and on-grid supply.[23]

In the case of companies or organizations using solar lanterns, the following approaches are examples: a social project such as the '100 thousand solar lanterns project' by the Panasonic Cooperation,[24] charity activities by volunteer groups,[25] and programmes of education, research and social engagement.[26] One notable project as part of an economic scheme by SMEs is WASSHA[27] which was established in 2013 in Tokyo. The startup helps organize local people in Tanzania, Uganda and Mozambique to lend solar lanterns from a charging kiosk where maintenance is also carried out. The process enables local people to understand how to manage energy and how to do business. Its outstanding characteristic is that the process involves not only the local people, but also individual investors and doners internationally. In order to develop and offer continuous support, the impact needs to be evaluated not only at the individual level, but also continuously at the level of the community and society.

To implement projects such as these to support areas in need, researchers underline the importance of localization from the aspect of

[21] Available at https://www.chusho.meti.go.jp/koukai/chousa/chu_kigyocnt/2023/231213chukigyocnt.html (last visited 30 August 2024) (in Japanese).

[22] Presented in the 2022 White Paper on Small and Medium Enterprises in Japan. Available at at https://www.chusho.meti.go.jp/pamflet/hakusyo/2022/PDF/2022hakusyosummary_eng.pdf (last visited 30 August 2024).

[23] T. Okamura et al, 'The Current Situation of Solar Home System Usage and Problems Due to Its Inappropriate Uses in Unelectrified Areas of Tanzania' 59 *Africa Report*, 110-121 (2021) (in Japanese).

[24] Panasonic, '100 Thousand Solar Lanterns Project', available at https://panasonic.net/sustainability/en/lantern/ (last visited 25 August 2024).

[25] 'All-Light Village Project', Global Peace Foundation, available at https://www.globalpeace.org/project/all-lights-village-project (last visited 30 August 2024).

[26] T. Onishi, *Development of Solar Lantern for Non-electrified Area in Thailand – The Result of Involving Energy Issue in Design Education* (Japan: Japanese Society for the Science of Design, 2021) (in Japanese).

[27] WSSHA, available at https://wassha.com/ (last visited 30 August 2024).

users.[28] The projects provide evidence of the efficient and flexible impact of new energy on the activities of local people. However, the researchers also point out maintenance-related difficulties and the need to combine this source of energy with other energy sources for sustainable development.[29,30]

2. Background of the Project

Landport Co. Ltd.[31] was established in Tokyo in April 1990 as a small company. Its mission is to 'light up your heart', and its vision is to develop a business that synchronizes with the global environment and the well-being of people. In 2017 Landport invented a small solar lantern which was named 'CARRY THE SUN'® using the concept of 'the sun at night in the world'. It was developed from the experiences of evacuation during the Hanshin Awaji earthquake in Japan in 1995. The memory of the fear of darkness and relief from a small light during the night is etched in the memory of the CEO, Aya Denma.

The size of the cuboidal lantern is 110 mm and it weighs 57 g. It can be held flat like a Japanese traditional toy, *Kami Fuusen* (paper balloons), so that it is easy to handle. The portable and waterproof lantern is suitable not only for outdoor use such as on camping sites and in mountaineering activities, but also indoors, as in bathrooms and bedrooms. Another outstanding aspect is the high-quality battery, which lasts for 72 h (continuous use), while solar charging takes 7 h. It costs JPY 4,400 (EUR 25.66).[32]

In 2017, the 'Buy One Give One®' project was launched. If a consumer purchases lanterns from the official website of the project, then the company delivers the same number of lanterns to areas without or with an insufficient electricity supply such as slum communities, villages of ethnic minorities in mountainous areas, refugee camps, and disaster-affected areas around the world. Sales via the project website increased from 133 in 2019 to approximately 16,000 in 2023. Sales in 2023 were three times higher than those in 2017.[33]

Figure 3 illustrates the concept of the project and presents the cycle

[28] S. Konaka, I. Ota and S. Son, *Humanitarian Aid from the Aspect of Area Studies: Reviewing from the Field of Nomads in Africa* (Japan: Showado, 2018) (in Japanese).

[29] M. Numata et al, 'Technoeconomic Assessment of Mini-grids in Myanmar' 99 *Journal of the Japan Institute of Energy* (Japan: Japan Institute of Energy, 2020) (in Japanese), 67-74.

[30] T. Okamura et al, n 23 above, 110-121.

[31] Landport Co., Ltd, Official Website https://carrythesun.jp/en/ (last visited 30 August 2024).

[32] Exchange rate on 27 June 2024.

[33] K. Akama, 'Refugee Support: Buy One Give One' *Nikkei MJ* (13 October 2023) (in Japanese).

among sellers, customers, and children in supported areas. Consumers obtain not only lanterns but also information about the supported areas as feedback through Landport's website and on SNSs such as Facebook and Instagram. The data collected by the Centre for Sustainable Development Studies is included as feedback. In addition, this organization was tasked to examine and publish the practical impacts of the project in the field and in the communities. Table 2 reports the time, areas, and number of delivered lanterns since 2022.

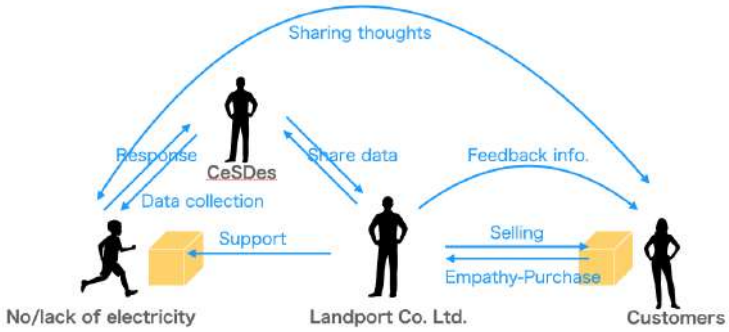

Figure 3: Cycle of the Buy One Give One® project

Table 2: Delivered Lanterns

Year	Destination of Delivered Lanterns	# of CTS
2022	(January) Vietnam	200
	(February) Futaba, Fukushima	285
	(March) Southern Sudan Refugee Camp	1,000
	(April) Child Medical Center	110
	(July) Philippines	40
	(August) Vietnam	200
	Myanmar Refugee Camp	50
2023	(March) Futaba, Fukushima	200
	(February to June) Turkey	12,240
	(August) Myanmar Refugee Camp	624
	(September) Karachi, Pakistan	53
2024	(January) Noto, Japan	10,000+

The characteristic of this project is not only delivering the lanterns but, through the process, understanding the local situation. The company is eager to collaborate with local shops, volunteers, and artists to brand the project as an original one. Sometimes it sells not only lanterns, but also products from disaster-damaged sites to support its business. The latest case is Noto which suffered serious earthquake damage on 1 January 2024, causing many traditional stores to lose the place where they could sell their products. The flexibility of collaboration is also one of the strengths of the

business scheme. It also uses SNSs such as Instagram and Facebook.

3. Carry the Sun 'Hands to Hands'

A collaborative research project was launched with an agreement between the Centre of Sustainable Development Studies in Toyo University and Landport Co. Ltd. in October 2021. A questionnaire and field survey were conducted to examine the impact of a project in Northern Vietnam in 2022 and at the Myanmar refugee camp in Thailand in 2023. For the questionnaire, the major questions were as follows.

A) Profile: name of school, grade, age, gender, family structure, and occupation of the members of the household
B) Use of lantern: frequency, aim, method of battery charging
C) Perception: positive and negative points
D) Changes: security, most significant change
E) Any ideas to utilize the lantern for the future

Through the valuable cooperation of schoolteachers, local companies, and NGOs, the authors collected 45 responses from villages in Northern Vietnam and 30 from the Myanmar refugee camp in Thailand. The subsequent section describes the outcome of the field observation and interviews.

4. The Case of Northern Vietnam

A total of 400 lanterns were delivered in 2022 and 2023 to ethnic schools in the Ha Giang Province of Northern Vietnam and the Thanh Hoa province of Central Vietnam. Poverty suffered by ethnic minorities in Northern Vietnam is severe. The Kinh, Tày, Hmong, Nùng, and LaChi are the major ethnic groups in this area. Many of them traditionally worship the virgin forests and maintain their unique traditional cultural lifestyles. These rich cultural diversities can be observed in the city centre at the morning market at the weekends. However, their living conditions are deteriorating year on year due to their limited income. The effects of climate change in recent years have led to strong thunder and winds, which have inflicted serious damage on agricultural products. Moreover, the effect of the COVID-19 pandemic led to the loss of

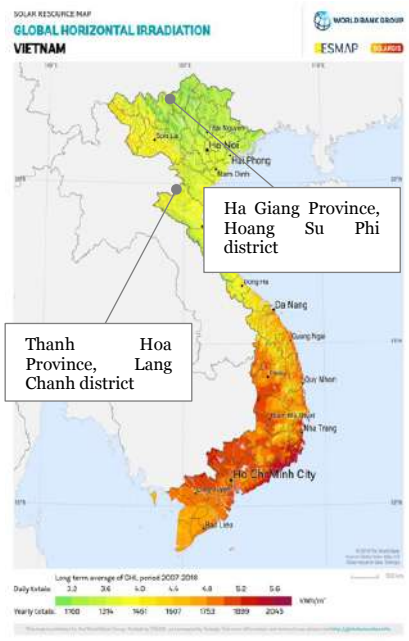

Figure 4. Location of Targeted Schools in Districts
Source: Global Solar Atlas 2.0, Solar Resource data Solargis, CC BY 4.0©The World Bank

opportunities for the education of children in these areas. The disparities of income and education opportunities for children are widening between rural areas and cities.

The surveyed area is Ha Giang Province, which is 319 km from Hanoi and is known for its beautiful landscape of terraced paddy fields. The villages that received lanterns are in the Hoang Su Phi district (629 km²) with a population of 66,683 as of 2021.The life of rice farmers is difficult as they conduct traditional farming on a number of pocket-sized fields with water buffalos. Children need to walk up and down the ridges between the rice fields to school every weekday. Going to school may take more than one hour for many children, so that some children stay in boarding schools and go home during the weekend by motorcycle with parents or relatives.

The houses in the villages are scattered among the mountains, because the inhabitants need to care for the land of their ancestors. A few houses use a small-scale hydroelectric generator from the spring. However, the supply is relatively unstable due to the limited volume of water, especially during winter, and it is occasionally difficult to maintain the generator. Some houses suffer fire due to the poorly maintained wires from the generator to their homes. Although the public supply of electricity has expanded since 2019 after the development of a national road from Hanoi to the Northern Provinces, payment by cash is a new challenge for those who lack sufficient job opportunities.

Figure 5: Location of Refugee Camps
Source: UNHCR

The results of the questionnaire indicate that children frequently (77.8%) and occasionally (22.2%) use the lanterns. In other words, all the respondents use the lanterns after delivery. The main purpose of the use of the lantern is studying (75.6%), reading books (6.7%) and visiting friends. Other responses include for daily life, travelling to school, and eating meals. Nearly 88.9% use the lanterns at home rather than at school or outside. The average length of use is 56.9 minutes Among the respondents, 71.2% use the lantern every day and 22.2% four to six days per week.

It was also clear that 24.4% pay attention to the weather to charge the battery, while 42.2% mentioned that they study at home as a new habit. Others stated that the lantern makes it possible to eat dinner together as a family. The most significant change was related to study habits. A few

expressed the desire to use the lanterns as public lights on the streets and as decoration at local festivals. On the other hand, 26.7% of children mentioned that they experience difficulty, as they need to rent the lantern from family or friends.

A remarkable outcome is that the lanterns tend to support the study habits of the children and strengthen relationships within the family. To effectively charge the battery under the sun, parents support children in finding a good and safe place. A number of parents keep the lantern on the family altar which is the most sacred place when not in use and allow children to use it for studying. Many of them also mentioned that they love the shape of the light which shines gently rather than too brightly like fluorescent lights.[34,35]

5. The Case of the Myanmar Refugee Camp

Since the coup d'etat on 1 February 2021, more than 1.12 million people (December 2022) have fled from Myanmar to neighbouring countries. The United Nations High Commissioner for Refugees (UNHCR) recorded approximately 1.83 million domestic refugees in May 2023. The situation remains severe and requires long-term support.

Nine refugee camps exist along the boundary of Myanmar in Thailand (Figure 5). In 2023, a total of 724 lanterns were delivered in refugee camps, migrant schools, and medical centres through the support of local NGOs.

In 2023, as part of the study, a survey was conducted at a refugee camp located 75 km from the centre of Mae Sot across the mountains. It is home to 8,952 people and 1,757 households, numbers which continue to increase each month. The camp is divided into 16 sections, and each section has a leader and committee members for management. Although the UNHCR partially initiated the Refugee Resettlement Programme to the United States in 2015, many residents remain on the list, and approximately 20% of the population have been denied resettlement due to old age. Although they can receive 312 baht per month through digital cash, available shops for its use are limited, and the amount is insufficient to obtain daily meals.

The results of the survey indicate the following situation in the camp. In terms of employment, 30% of heads of household work as day labourers, 20% operate retail shops within the camp, and others work as farmers, NGO staff, and administrative officers or are employed in needlework. In

34 K. Kashiwazaki, 'Impact Analysis of Small-Scale Support – Case Study of Solar Lantern Project to Ethnic Minorities in Northern Vietnam', in *The 34th Conference of Japan Society for International Development* (Japan: JASID, 2023) (in Japanese).

35 K. Kashiwazaki, 'Impact Analysis of Solar Lanterns for Non-electrified Villages in Vietnam – From the Primal Survey in 2022', in *Proceeding of the International Symposium of Asian-Pacific Planning Societies* (Japan: City Planning Institute of Japan, 2022), 29-32.

terms of frequency, 40% of the children responded that they frequently use the lanterns and 55.3% occasionally use them. On the other hand, 6.7% do not use the lanterns.

The main purposes of use are studying (56.7%), reading books (26.7%), and general lighting (10%). Others responded that they use them 'during blackouts', which implies they have electricity. A total of 93.3% use the lanterns at home for an average of 86.2 minutes while 73.3% use them once to three times per week, and 20.0% use them four to six times per week. The frequency differs according to the day of the week.

The results of the questionnaire and field surveys on ethnic minority villages located in mountainous areas in 2022 and the Myanmar refugee camp in Thailand in 2023 point to the impact of the lantern on actions and minds. First, we found that more than 90% of children use the lantern continuously for studying at home. Furthermore, we identified that a new relationship emerged between children and parents in terms of the use of the lantern and for effective battery charging under the sun. For example, fathers occasionally place the lantern on the roof when children are in school.

These impacts are limited, since they do not directly change the cultural lifestyle. However, to use the lantern in daily life, people pay greater attention to their environment with regard to the weather and safety. Moreover, a sense of control is created in the need to maintain the lantern as part of their own property.

6. New Cycles

Lessons from the project can be drawn not only from the individuals who received the lantern but also from those who support the project such as local schools, community organizations and companies that deliver the lanterns. The process of directly delivering from one hand to another takes time, incurs costs, and demands effort. However, the outcome of the project is the promotion of empathy and introspection on one's lifestyle regarding the consumption of products and energy. This change of attitude is the major objective of the project.

Two consumers joined a trip to deliver lanterns to Myanmar refugee camps in the summer of 2023. After the trip, they recalled their old family history, which connects Japan, Myanmar, and Thailand. The study suggests that they had begun to understand the situation in these areas and the reason for the challenges being faced there. Moreover, they recognized that the support given to these areas has led to major impacts on themselves to connect with global issues. On the trip, they also met people from Myanmar, Thailand, Japan and elsewhere and also organizations engaged in supporting refugees and children. This experience of connection affected both sides with common aims. The process offers the

potential of extending the cycle of the Buy One Give One® project.

The movement is also expanding to university students through collaborative research projects with companies and academics. For example, a student volunteer group held events and a workshop to connect students who had limited opportunities to get together face to face due to the COVID-19 pandemic in 2020. This experience led to awareness about the environment and social responsibilities of the young generation through active learning. Nowadays, these activities are being enhanced as social collaboration in the research and education fields.

As the next step to increase its impact, it is important to strengthen the cycle by involving local members belonging to the high- and middle-income population. The companies and NGOs which support the project have started to promote the product and project with colleges, business partners, and friends who have sufficient money to purchase lanterns and intend to support poor children in their country. This movement is quite slow and difficult to reinforce as a business system, but it can encourage participants to recognize sustainable markets through their daily consumption and production.

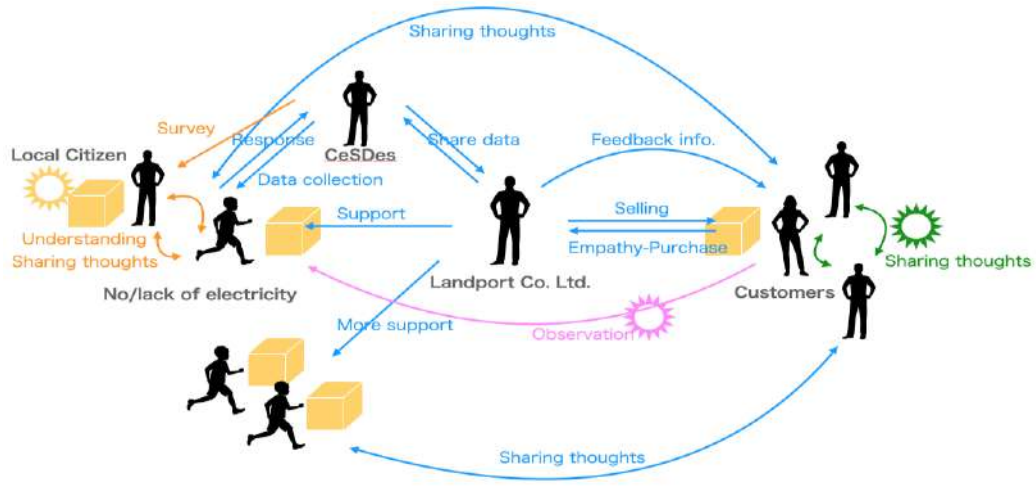

Figure 6. Expanding Cycle of the Project

IV. Conclusion

The concept of the sustainable market such as *Sampo-Yoshi* is based on one where community and life are connected. In recent years, the advances of globalization and digitalization have led to greater efficiency, improved convenience, and transparency, which should continue to develop in the future. However, it is also important to note that it has

become possible to visualize not only the efficiency of production and consumption, but also the philosophy and purpose to continuously create added value.

As we have seen from the case of urbanization and the housing issue in Thailand with the Baan Mangkong programme, rapid development has led to disparities, but a bottom-up approach can be used in poor communities for people to improve with their own hands their housing and living environment for the long term. At the same time, we have learnt how to regenerate the cohesion of local communities which is weakening especially in city areas in Japan which face serious depopulation and where society is aging. Nowadays, the community organization uses digitalization such as social networks to supply extensive information, and it provides more opportunities to understand the latest situation of each individual that goes beyond language. It is time to teach each other the process of development at the community level.

It can be said that the business model of the Buy One Give One® project can provide the opportunity for those who commonly consume products as part of their normal lifestyle to think about what sustainability means to them as opposed to poorer people.

Overall, it can be concluded that the sustainable business model allows for sustainable development to be viewed as a whole. Due to the acceleration of globalization and economic-oriented development without proper policy and regulations, disparities between rich and poor, and between the city and rural areas are growing. However, the fine opportunity offered by a small solar lantern can make an impact on poor children in rural areas who can spend more time studying at home, expanding their awareness of the environment, for example regarding the weather, create new relationships with the family, and recognize their cultural value in beautiful nature and in communities. These children are certainly important human capital and will contribute to the local community and society even though they might need to move to city areas for education or job opportunities in the future. At the same time, a person who has started to recognize the issue of disparity in his or her own country and the unsustainable lifestyle in the city also has the chance to move to a rural area to support and contribute to environmental and cultural conservation.

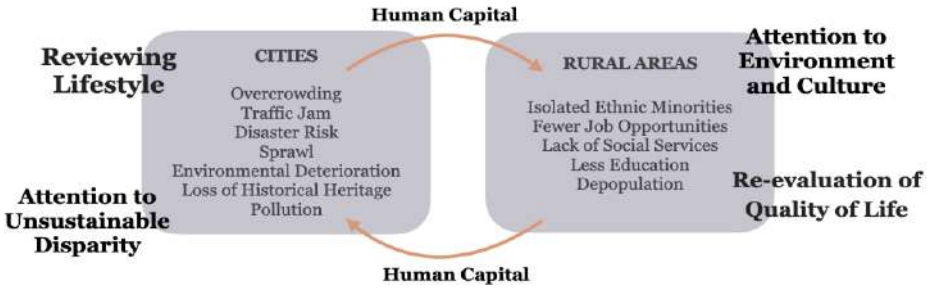

Figure 7: Further Cycle Toward the Elimination of Disparities

In a further vision, this cycle of reviewing consumption and production leads to better human capital and personal cycles beyond cities, rural areas, and countries. Indeed, this vision may be overly optimistic; however, the current researchers continue to hope that the cycle will lead to new market systems. This change can start with small actions.

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Reframing Legal Pathways to Sustainable Transition: A European Perspective on Ecological Constitutionalism in Light of the Cauca River Case in Colombia

Riccardo Perona*

Abstract

The paper explores the constitutional impact of the shift from the proprietary understanding of nature to the recognition of new legal subjectivities, especially within the context of 'new constitutionalism' and the 'Andean' perspective. The case of the Cauca River is presented as paradigmatic, as it has been recognized not only as a legal subject, but as victim of the armed conflict in Colombia. Experiences like this confirm the crucial role that can be played by innovative doctrines in the era of 'transitions' and offer insights for further legal elaborations also in the European and Italian context.

Keywords

New Andean Constitutionalism, Ecological Constitutionalism, Indigenous Rights, Biocultural Rights, Legal Subjectivity, Cauca River.

I. Introduction: 'They Repeatedly Tear the Earth', or the Environment under Proprietary Understanding

The most well-known stasimon from one of the foundational texts of Western philosophical and legal tradition owes its notoriety to a description of the greatness of human beings:

> 'There are many formidable things,
> but none more formidable than
> are human beings.
> They sail over ocean's grey wastes
> with southerly storm-winds between
> towering waves.
> And the god most primeval of all –
> undying, unwearying Earth –
> by turning the soil
> they repeatedly rake her and tear,
> as horses pull ploughs back and forth, year after year (...)'.[1]

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Thus, as early as in the 5th century BC, Sophocles' *Antigone* showed elements of what today is commonly referred to as the proprietary understanding of the relationship between human beings and natural entities.

As a characteristic feature of the Western legal tradition, this conception has been typically studied by private law scholars.[2] Gaius' division between 'persons' and 'things' (linked by a relationship of domination of the former over the latter, guaranteed by the 'action') is typically mentioned as a conceptual root.[3] The success of this approach in the Middle Ages and in the Modern Era is well known: Spanish Scholasticism in the 16th century already defined the 'legal subject' as the entity to which the 'dominion over things' belongs.[4] In later centuries, this justified the exquisitely patrimonial and anthropocentric character of the category, which allowed the right to property to become the most paradigmatic of subjective rights in modern codifications.[5] In the words of Jean-Étienne-Marie Portalis, drafter of the Napoleonic *Code Civil*, 'all laws refer to persons or to property, and to property for the use of persons'.[6]

Over the last decades, however, the proprietary understanding of the relationship between persons and things has constituted the object of several critiques: indeed, theoretical instances as well as practical experiences have challenged the basic conception of the world that we live in as a mere set of natural 'resources' to be exploited – by 'repeatedly tearing the Earth', in Sophocles' words – and have proposed alternative conceptualizations. While various approaches in legal theory have long

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[1] Sophocles, *Sophocles: Antigone and Other Tragedies* (translated by Oliver Taplin, Oxford: Oxford University Press, 2020), 26.

[2] It has been suggested that the whole modern issue of rights revolves around the legal notion of *dominium* as the proprietary relationship between 'men' and 'things'. F. Viola, 'Antropologia e diritti' *Enciclopedia di bioetica e scienza giuridica* (Napoli: Edizioni Scientifiche Italiane, 2009), 536-554.

[3] See Gaius, *Institutiones*, 168-180. On the impact of this tripartition on modern legal thought, see R. Míguez Núñez, *Le avventure del soggetto. Contributo teorico-comparativo sulle nuove forme di soggettività giuridica* (Milano-Udine: Mimesis, 2018), especially 15-19; M. Maureira Pacheco, 'La tripartición romana del derecho y su influencia en el pensamiento jurídico de la época Moderna' *Revista de estudios histórico-jurídicos*, 269-288 (2006).

[4] R. Míguez Núñez, 'Soggettività giuridica e natura. Spunti per una riflessione civilistica' *Diritto & Questioni Pubbliche*, 29, 32 (2020), citing A. Guzmán Brito, *Los orígenes de la noción de sujeto de derecho* (Bogotá: Temis, 2012), 6.

[5] See R. Míguez Núñez, n 3 above, 61-64.

[6] J.E.M. Portalis, *Discours de présentation et exposé des motifs sur le projet de Code civil devant le Corps législatif*, 1801, translated by the author. By no coincidence, an analogous reference to Gaius' *summa divisio* also appears in the German Pandectistic doctrine: 'everything that is the opposite of a person is called a thing'. See A.F.J. Thibaut, *System des Pandektenrechts* (Goldbach: Keip Verlag, 2000. 100 Jahre Bürgerliches Gesetzbuch), translated by the author.

suggested the possibility to extend the concept of rights ownership beyond the sphere of human beings,[7] more recently, relevant studies, once again in private law, have reconsidered the anthropocentric reading of legal subjectivity and tried to broaden the category to encompass non-human entities.[8] Often, these proposals have been aligned with the reconfiguration of a more complex concept of personhood.[9] Also, in many cases, doctrinal studies have been inspired by relevant developments in comparative experiences, especially those characterized by the considerable influence of indigenous communities and culture.[10]

This particular aspect has raised the interest of public law and constitutional theory: indeed, scholars have considered how such worldviews have not only inspired constitutional reforms or milestone judgments, but may have even configured 'new' forms of 'constitutionalism' within the public law tradition.[11] In particular, Latin-American experiences have been examined, characterized as they are by the incorporation of ecologically oriented paradigms at the constitutional level.[12]

This paper explores such constitutional developments, firstly by contextualizing them within the conceptual framework of 'new constitutionalism' and the 'Andean' perspective (section II). Then,

[7] For an overview, see S. Dellavalle, 'Granting Rights to Nature? Considerations on Three Different Approaches to the Question' 9 *Max Planck Institute for Comparative Public Law & International Law (MPIL) Research Paper Series* (2022).

[8] See M.R. Marella, 'Antropologia del soggetto di diritto. Note sulle trasformazioni di una categoria giuridica', in F. Bilotta and F. Raimondi eds, *Il soggetto di diritto. Storia ed evoluzione di un concetto nel diritto privato* (Napoli: Jovene, 2020), 57; see also R. Míguez Núñez, n 3 above, especially 71-94.

[9] See, among others: G. Oppo, 'Declino del soggetto e ascesa della persona' *Rivista di diritto civile*, 829 (2002); S. Rodotà, 'Dal soggetto alla persona. Trasformazioni di una categoria giuridica' 21 *Filosofia politica*, 365 (2007). For a comprehensive study on the 'person' in (private) law, see P. Perlingieri, *La personalità umana nell'ordinamento giuridico* (Napoli: Edizioni Scientifiche Italiane, 1972); Id, *La persona e i suoi diritti. Problemi del diritto civile* (Napoli: Edizioni Scientifiche Italiane, 2005). On the opportunity of expanding the concept of personhood beyond the boundaries of the 'human', see T. Pietrzykowski, *Personhood Beyond Humanism. Animals, Chimeras, Autonomous Agents and the Law* (Cham: Springer, 2018), 25.

[10] For an introduction, see S. Lanni ed, *I diritti dei popoli indigeni in America Latina* (Napoli: Edizioni Scientifiche Italiane, 2011).

[11] See R. Viciano Pastor and R. Martínez Dalmau, 'Fundamentos teóricos y prácticos del nuevo constitucionalismo latinoamericano' *Gaceta Constitucional*, 307-328 (2011); R. Viciano Pastor and R. Martínez Dalmau, 'El nuevo constitucionalismo latinoamericano: fundamentos para una construcción doctrinal' *Revista General de Derecho Público Comparado*, 1-24 (2011).

[12] See, for now, M. Carducci, 'Epistemologia del Sud e costituzionalismo dell'alterità', in M. Carducci ed, *Il «nuevo constitucionalismo» andino tra alterità indigenista e ideologia ecologista. Diritto Pubblico Comparato ed Europeo*, 2, 319 (2012); S. Baldin and M. Zago ed, *Le sfide della sostenibilità. Il buen vivir andino dalla prospettiva europea* (Bologna: Filodiritto, 2014), 73; S. Lanni ed, n 10 above.

Colombia will be presented as an example of 'ecological' constitutionalism (section III) and the peculiar case of the Cauca River will be presented as paradigmatic, as it has been recognized not only as a legal subject, but as a victim of armed conflict (section IV). By comparing and pinpointing the peculiarities of such a case *vis-à-vis* other examples of 'subject rivers' in different legal systems, even beyond the 'Andean' area (section V), the study highlights the crucial role that can be played by innovative legal elaborations in the era of 'transitions' and offers insights for further legal elaborations also in the European and Italian context (section VI).

II. Beyond Anthropocentrism: 'New' and 'Andean' Perspectives in Contemporary Constitutionalism

Over the last decades, Latin American constitutional developments have become a point of interest for legal scholarship far beyond the borders of the continent, marking a shift from the earlier notion, suggested by some, that many of the experiences in the area represented examples of 'failed constitutionalism'.[13] Today, scholars emphasize the innovative and original aspects of the region's constitutional dynamics: rather than viewing them as isolated and independent, these developments are seen as part of a broader, coherent phenomenon, whose most accepted denomination is 'new constitutionalism'.

According to the authors who proposed its configuration as a theoretical and doctrinal category,[14] the Latin American 'new constitutionalism' shares some elements derived from Euro-continental scholarship, such as the emphasis on the 'constitutionalization' of contemporary legal systems,[15] but still lacks a fully developed doctrinal structure in its original aspects: it appears as a phenomenon arising mainly from popular demand and social movements, rather than from coherently organized theoretical propositions. Still, it can be considered as an emerging constitutional current, given some identifiable and fairly well-

[13] K.S. Rosenn, 'The Success of Constitutionalism in the United States and Its Failure in Latin America: An Explanation' 22 *The University of Miami Inter-American Law Review*, 1-39 (1990).

[14] See R. Viciano Pastor and R. Martínez Dalmau, 'El nuevo constitucionalismo latinoamericano', n 11 above, 4. The expression echoes the well-known, and widely debated, doctrine of 'neoconstitutionalism' (which, in the perspective of the authors, is the well-established doctrine that offered the original conceptual basis to the 'emerging' doctrine of new constitutionalism). See S. Pozzolo, 'Neoconstitucionalismo y especificidad de la interpretación constitucional' *Doxa*, II, 339-353; M. Carbonell ed, *Neoconstitucionalismo(s)* (Madrid: Trotta, 2003); D. Lascarro-Castellar and J. Mejía Turizo, 'Nuevo constitucionalismo en Latinoamérica: Perspectivas epistemológicas' *Revista de la Facultad de Derecho, Universidad de la República Uruguay*, 24-48 (2019).

[15] R. Guastini, 'La constitucionalización del ordenamiento jurídico: el caso italiano', in M. Carbonell ed, *Neoconstitucionalismo(s)*, n 14 above, 50-57.

defined features common to different countries in the region.[16]

In this sense, the characterizing traits of 'new constitutionalism' would be peculiar focus on the democratic processes in the constituent phase and the commitment to substantive democracy over formal democracy.[17] From these basic aspects spring several other elements that are common to the Latin-American experiences, both of a formal and material nature:[18] among the latter, the most interesting for our study can be identified in the promotion of the integration in the constitutional discourse of historically marginalized sectors, such as indigenous peoples and worldviews.

This peculiar issue has often been traced back to the 'Andean' component of 'new constitutionalism', a specific feature or even a version of the phenomenon which is particularly palpable in countries crossed by the Andes mountains.[19]

In the Andean perspective, the conquests of liberal constitutionalism in terms of rights and freedoms are reaffirmed, while at the same time they are put in dialogue with the ancient traditions of the ancestral Latin American cultures. In this regard, some have spoken of 'mestizo constitutionalism' to refer to the resulting, original mixture of elements, in

[16] According to some authors, the experiences that showed relevant common elements were the constitutional reforms in Brazil (1988), Costa Rica (1989), Colombia (1991), Mexico (1992), Paraguay (1992), Peru (1993), Venezuela (1999), Ecuador (1998 y 2008) and Bolivia (2009). R. Uprimny, 'Las transformaciones constitucionales recientes en América Latina: tendencias y desafíos', in C. Rodríguez Garavito ed, *El derecho en América Latina: un mapa para el pensamiento jurídico en el siglo XXI* (Buenos Aires: Siglo Veintiuno, 2011), 109. Others have criticized the homogeneity of these experiences. See P. Salazar-Ugarte, 'El nuevo constitucionalismo latinoamericano (una perspectiva crítica)', in L.R. González Pérez and D. Valadés eds, *El constitucionalismo contemporáneo. Homenaje a Jorge Carpizo* (Ciudad de México: UNAM, 2013), 345-387.

[17] R. Viciano Pastor and R. Martínez Dalmau, 'El nuevo constitucionalismo latinoamericano', n 11 above; see R. Viciano Pastor and R. Martínez Dalmau, 'La Constitución democrática, entre el neoconstitucionalismo y el nuevo constitucionalismo' *El Otro Derecho*, 63-84 (2014).

[18] The formal elements are the originality as well as the significant length of constitutional texts, their ability to combine technically complex elements with accessible language, and the commitment to a direct involvement of the people for any constitutional change; the material aspects are the provision of new forms of participation, the presence of a long bill of rights, and the promotion of the integration of historically marginalized sectors. R. Viciano Pastor and R. Martínez Dalmau, 'El nuevo constitucionalismo latinoamericano', n 11 above, 14.

[19] Indeed, the 'new Latin American constitutionalism' is frequently referred to as the 'new Andean constitutionalism'. However, a complete overlap between these two concepts may not be correct, as other cultural components within the Latin American constitutional culture can be identified different from the Andean one. In particular, a significant void can be observed in the legal scholarship as regards the 'Caribbean' constitutional culture: for a preliminary study, see only S. Wheatle, 'Constitutional Principles: Forging Caribbean Constitutionalism', in R. Albert, D. O'Brien and S. Wheatle eds, *The Oxford Handbook of Caribbean Constitutions* (Oxford: Oxford Handbooks, 2020).

which the introduction of values and principles inspired by the indigenous perspective enriches those traditionally derived from the European legal culture, ultimately reflecting the historical 'pluricultural' characteristic of the continent.[20] In some cases, these approaches even allowed for the contributions and knowledge of ancestral peoples and cultures to be considered as an actual 'source' of constitutional law.[21]

Under these premises, the 'Andean' new constitutionalism also shows another relevant feature: the particular type of constitutional combination described above is often seen as the result of a violent encounter, to be understood in the historical and cultural context of anti-colonialist claims.[22] In this sense, the Andean perspective questions the cultural foundations of legal, political and economic systems, reflecting the historical processes of struggle of the autochthonous communities against European colonial powers[23] and the 'counter-hegemonic' proposals of 'post-development'.[24]

In this perspective, it comes as no surprise that the new (Andean) constitutionalism, while granting relevant space for the recognition of the indigenous 'otherness', also tends to highlight and value particular aspects of legal protection that, using Western categories, could be called 'ecological', but that actually correspond to a different worldview, alternative to the anthropocentric vision derived from Roman law.

The alternative 'holistic' vision that emerges here impacts on several classical issues of constitutional law, fostering, for instance, the transition from the 'welfare state' (*estado del bienestar*) to the 'state of caring', in a context that not only focuses on social integration, but on the possible reformulation of the relationships between humans and the natural environment, conceptualizing the latter as a constitutionally protected subject and owner of rights.[25] In particular, the notion of 'good living'

[20] Á. Echeverri Uruburu, *Política y Constitucionalismo en Suramérica* (Bogotá: Universidad del Sinú, 2015).

[21] L.A. Fajardo Sánchez, 'El Constitucionalismo Andino y su desarrollo en las Constituciones de Bolivia, Ecuador, Perú y Venezuela' *Revista Diálogos de Saberes*, 55-75, 58 (2017). See also L.A. Fajardo Sánchez, 'Fray Antón de Montesinos: su narrativa y los derechos de los pueblos indígenas en las constituciones de Nuestra América' *Hallazgos*, 20, 217-244 (2013).

[22] B. De Sousa Santos, *Refundación del Estado en América Latina. Perspectivas desde una epistemología del sur* (Quito: Abya Yala, 2010).

[23] L.A. Fajardo Sánchez, n 21 above, 57.

[24] S. Lanni, 'Diritto e «a-crescita»: contributo contro-egemonico alla preservazione delle risorse naturali' *Diritto pubblico comparato ed europeo*, 3, 593 (2017); A. Acosta, *El Buen Vivir en el camino del post-desarrollo. Una lectura desde la Constitución de Montecristi* (Quito: Fundación Friedrich Ebert, FES-ILDIS, 2010).

[25] See S. Bagni ed, *Dallo Stato del bienestar allo Stato del buen vivir. Innovazione e tradizione nel costituzionalismo latino-americano* (Bologna: Filodiritto, 2013); J.J. Bustamante Lozano, 'La naturaleza como sujeto de derechos: reflexiones en torno al constitucionalismo andino' *Tesla Revista Científica*, 135 (2022); S. Baldin, 'I diritti della

(*buen vivir*) has been studied, in opposition to the Western concept of 'welfare' (*bienestar*): an indigenous paradigm (*sumak kawsay*) that promotes the harmonious coexistence of humans and nature, based on the 'biocentrism' of the Andean perspective.[26]

This peculiar trait of the new Andean constitutionalism, which highlights the biocentric aspect of the indigenous cultural heritage, has gained special practical relevance in some Andean countries: particularly, in Colombia, progressive judicial decisions have granted legal personhood to natural entities such as rivers and forests, reflecting an evolving interpretation that has become interestingly stronger in the context of the country's post-conflict.[27]

III. The Colombian 'Ecological' Constitution Between Indigenous Perspectives and New Legal Subjectivities

Colombia's adoption of a new Political Constitution in 1991 marked a significant change in the country's institutional structure and fundamental principles, compared to the previous constitutional text that dated back to 1886. Although it can be considered relatively old in comparison to those of other Latin American countries, the Constitution of 1991 already showed innovative features in terms of environmental protection. Besides, an even more relevant hermeneutical work has been done by the Constitutional Court which has come to interpret it as an 'ecological constitution'.

According to the Court, a triple dimension can be underlined in this regard: 'On the one hand, environmental protection is a principle that irradiates the entire legal order, since it is the State's obligation to protect the natural wealth of the Nation. On the other hand, it results in the right of all people to enjoy a healthy environment, a constitutional right that is enforceable through various judicial channels. And, finally, a set of obligations imposed on authorities and individuals derives from the ecological constitution'.[28]

This milestone judgment marked a significant change towards the progressive overcoming of what was considered to be an 'Eurocentric' and

natura: i risvolti giuridici dell'ética ambiental exigente in America Latina' *Forum di Quaderni Costituzionali* (26 June 2014).

[26] See S. Bagni ed, n 25 above; R. Perona and A. Zavatteri, 'Il "buen vivir": note sul recepimento di un principio innovatore nell'ordinamento colombiano' *Osservatorio Costituzionale AIC*, 3, 373 (2018); L.A. Fajardo Sánchez, n 21 above.

[27] See R. Perona, M. Caro and M. Bin, 'La subjetividad jurídica de la naturaleza en el nuevo constitucionalismo andino: los casos de Ecuador, Bolivia y Colombia' *Revista Saber, Ciencia y Libertad*, 1, 126-141 (2023), also for an account of two other relevant experiences: Ecuador and Bolivia.

[28] Corte Constitucional de Colombia 25 September 2017 no T-760, available at www.corteconstitucional.gov.co, translation by the author.

'anthropocentric' original perspective of the constitution,[29] in favour of the adoption of a more holistic approach integrating human beings with their environment. The subsequent case law of the Constitutional Court completed this perspective by connecting the 'ecological' perspective with the protection of the indigenous communities, whose relevance within Colombian legality is particularly significant.

In this regard, the Constitution explicitly recognizes the ethnic and cultural diversity of the Colombian nation (Art 7) and guarantees the protection of the linguistic (Art 10) and educative (Art 68) diversity of indigenous peoples. Art 246 goes as far as to recognize the right of the communities to exercise special jurisdiction under some circumstances.[30] Furthermore, Art 329 recognizes the constitutional status of 'indigenous territorial entities' and acknowledges the right of indigenous peoples to their ancestral lands, ensuring the legal recognition and protection of these territories. In addition, any legislation affecting indigenous territories or rights must be consulted with the communities involved, in accordance with the principle of free, prior, and informed consent (see, among others, Art 330). These provisions are crucial for the preservation of the indigenous way of life, as land is intrinsically linked to their cultural and spiritual practices.

On one hand, this explains how the Constitutional Court was able to conceptually connect the 'ecological' vocation mentioned above to the preservation of the indigenous worldview. On the other, it is interesting to note the legal technicality used by the Court to that effect, which involved the construction of a new legal concept: 'biocultural rights'.

In the words of the Court: 'The so-called biocultural rights, in their simplest definition, refer to the rights that ethnic communities have to administer and exercise autonomous guardianship over their territories – in accordance with their own laws and customs – and the natural resources that make up their habitat, where their culture, traditions and way of life are developed based on the special relationship they have with the environment and biodiversity. Indeed, these rights result from the recognition of the profound and intrinsic connection that exists between nature, its resources and the culture of the ethnic and indigenous communities that inhabit them, which are interdependent and cannot be

[29] L. Estupiñán, L. Parra and M. Rosso, 'La Pachamama o la naturaleza como sujeto de derechos. Asimetrías en el Constitucionalismo del "buen vivir" de América Latina' *Revista Saber, Ciencia y Libertad*, 42, 49 (2022).

[30] For an introduction on these topics, see F. Semper, 'Los derechos de los pueblos indígenas de Colombia en la jurisprudencia de la Corte Constitucional', in *Anuario de Derecho Constitucional Latinoamericano* (Uruguay: Konrad-Adenauer-Stiftung, 2006), II, 761-778; Esther Sánchez Botero, *La jurisdicción especial indígena en Colombia* (Bogotá: IEMP, 2007).

understood in isolation'.[31]

This definition, a landmark within Colombian constitutional legality, was given by the Court in a case that was brought by several indigenous and Afro-Colombian communities from the Atrato River basin in the Chocó region. These communities argued that their fundamental rights to life, health, water, food security, a healthy environment, and their cultural rights were being violated due to severe environmental degradation caused by illegal gold mining. The mining activities led to mercury contamination, deforestation, and significant damage to the river ecosystem, profoundly affecting the communities' way of life and survival. The Court's decision, grounded in the concept of biocultural rights, recognized the Atrato River as a legal subject entitled to its own rights and ordered the Colombian government to take urgent measures to protect and restore the river, as well as to guarantee the rights of the communities that depend on it for their subsistence and culture.

No natural entity such as a river had been declared a legal subject before in Colombia. Thus, this ruling opened an evolving line of interpretation for Colombian judges: in subsequent years, several other rivers were declared subjects of law;[32] in 2018, the Supreme Court of Justice declared the Amazon forest a legal subject;[33] and once it started functioning in 2017, the JEP, the Special Jurisdiction of Peace, also began to adopt highly relevant decisions.[34]

IV. The Case of the Cauca River, Legal Subject and Victim of the Conflict

The case of the Cauca River was decided on 11 July 2023 in Colombia by a particular judicial body: the Chamber for the Recognition of Truth, Responsibility and the Determination of Facts and Conduct (*Sala de*

[31] Corte Constitucional de Colombia 10 November 2016 no T-622, available at www.corteconstitucional.gov.co, translation by the author.

[32] La Plata River (Juzgado Único Civil Municipal de La Plata 19 March 2019 no 00114, available at harmonywithnatureun.org); Magdalena River (Juzgado Primero Penal del Circuito con Funciones de Conocimiento de Neiva 24 October 2019 no 071, available at harmonywithnatureun.org); Quindío River (Tribunal Administrativo del Quindío 5 December 2019 no 030-002, available at harmonywithnatureun.org); Otún River (Juzgado Cuarto de Ejecución de Penas de Pereira 11 September 2019 no 036, available at harmonywithnatureun.org); Pance River (Juzgado Tercero de Ejecución de Penas y Medidas de Seguridad de Cali 12 July 2019 no 31, available at harmonywithnatureun.org).

[33] Corte Suprema de Justicia 5 April 2018 no STC4360, available at cortesuprema.gov.co.

[34] On the deep connection between the ecological perspective and the developments of transitional justice in Colombia, see R. Perona and A. Zavatteri, 'Il "buen vivir"', n 26 above, 373-392.

Reconocimiento de Verdad, de Responsabilidad y de Determinación de los Hechos y Conductas, SRVR), which functions within the framework of the Special Jurisdiction for Peace (*Jurisdicción Especial para la Paz*, JEP).

The latter is an extraordinary judicial system established in the country after the signing of the Peace Agreement between the national government and the Revolutionary Armed Forces of Colombia (*Fuerzas Armadas Revolucionarias de Colombia*, FARC) in 2016.[35] Within the framework of the complex mechanisms of Colombian transitional justice, the JEP has the power to open macro-cases to investigate and judge large-scale and complex crimes committed during the civil armed conflict. These macro-cases refer to specific situations involving multiple victims, perpetrators and contexts, and can cover a wide range of crimes, from enforced disappearances and extrajudicial executions to abductions and sexual violence. The opening of a macro-case by the JEP not only seeks to clarify the truth about the crimes committed during the armed conflict, but also to contribute to reconciliation and the construction of lasting peace in Colombia.[36]

Currently, the JEP has 11 macro-cases open. Case 05 is one of these: it aims to prioritize the situation of a territory, specifically the north of Cauca and the south of Valle del Cauca. It is a macro case with the largest number of victims, amounting to more than 200,000, gathered in 129 collective subjects that bring together 45 indigenous peoples, 67 community councils and 8 victim organizations.[37]

Within the preliminary rulings adopted by the SRVR during the proceeding of this case, Auto 226 of 2023 has drawn particular attention.[38]

[35] The Agreement entered into force on 30 November 2016 and marked the formal conclusion of the civil conflict in Colombia and the beginning of an historical and political phase known as 'post-conflict'. The adoption of the Agreement was made possible by specific constitutional provisions, and its implementation saw the creation of several special institutions. For an overview, see R. Perona, D.E. Florez Muñoz and F. Luna Salas, 'Peace through Justice, Truth, Reparation and Non-Repetition: Normative and Judicial Developments of the Special Legal Framework of Transitional Justice in Colombia' 23 *Global Jurist*, 2, 207-236 (2023); F.A. Díaz Pabón, *Truth, Justice and Reconciliation in Colombia: Transitioning from Violence* (London: Routledge, 2018); L. Ferrajoli, 'La giustizia penale transizionale nella Colombia del dopo conflitto e le garanzie della pace interna' *Democrazia e Diritto*, 169-188 (2016).

[36] The opening of a macro-case by the JEP involves a thorough process of investigation, evidence gathering, and analysis of available information. Generally, this process is initiated based on complaints or reports that reveal the existence of systematic patterns of human rights violations or crimes against humanity. Once the JEP determines that there are sufficient elements to open a macro-case, a team of investigators and prosecutors is appointed to collect testimonies, documents, physical evidence and any other element that may be relevant to the case.

[37] See the details of the case on the official website of the JEP: www.jep.gov.co.

[38] Sala de Reconocimiento de Verdad, de Responsabilidad y de Determinación de los Hechos y Conductas, Auto 11 July 2023 no 226, available at relatoria.jep.gov.co.

The decision arose because of the petition made in 2019 by the Community Councils 'Cuenca del Río Cauca and Microcuenca de los Ríos Teta y Mazamorrero' and 'Cuenca Río Timba-Marilópez', which requested to be recognized as victims and extended this request to include the Cauca River. They submitted detailed reports showing that between the years 2000 and 2004 systematic conduct was allowed by public authorities and carried out by paramilitary groups that involved murdering individuals and throwing them into the Cauca River to prevent them from ever being found.

According to the communities, this caused 'degradation' of the river, and entitle it, together with the communities, to a right of reparation. In this perspective, the river had suffered direct damage and therefore was to be considered a victim.

Relevantly, the SRVR directly quoted the words of the petitioners in the judgment: 'The position of our communities [...] is that as a legal entity subject to rights that could be harmed, nature itself, and in this case, the Cauca River, can become a victim of actions or omissions that harm its rights. Additionally, humans may see their rights damaged as a consequence'.[39]

Furthermore: 'As part of our participation in the Integral System for Peace, our Council carried out a process of constructing community narratives surrounding the serious crimes committed by armed groups during the war, as well as the impacts generated by such actions. In these exercises, we not only identified individual and collective victims resulting from the criminal actions of legal and illegal armed groups, but also reflected on the damages inflicted upon the Cauca River [...]. It was argued that the river, like our Community Council, had become another victim of the armed conflict'.[40]

The local communities informed the Court of a significant initiative of theirs regarding the restoration to be given to the Cauca River, highlighting the profound ancestral meaning of their relationship with it. This aspect is once again quoted by the Court in the ruling: 'Seeking to restore the relationship between the community and the Cauca River, on 15 February 2019, we conducted an act of reconciliation with the Cauca River as an ethnic-cultural initiative to reclaim the bonds of harmony, spirituality, and shared development that unite human and non-human ecosystems after years of conflict. During this time, the river transitioned from being a source of life to a space of pain and mourning'.[41]

The recognition of the link between the indigenous worldview and environmental protection could not be more explicit. Besides, most

[39] ibid 2, translation by the author.
[40] ibid 5, translation by the author.
[41] ibid 5, translation by the author.

relevantly, the SRVR endorsed this perspective, accrediting the Cauca River as a victim.

A detailed legal analysis is carried out in the ruling in this regard. Firstly, the Court accepted the legitimization of the community councils to express the violation suffered by the environment and associated natural and cultural assets.[42] Then, the SRVR considered the evidence presented to support the river's victim status and provided an extensive description of the events, highlighting that between 2000 and 2004 the Cauca River became a mass grave with thousands of corpses, severely affecting both the river ecosystem and the cultural relationship of the communities with their natural environment.[43]

The decision was based on an analysis of international documents regarding environmental protection. Reference was made to the Advisory Opinion OC-23/17 of the Inter-American Court of Human Rights on state obligations regarding the environment.[44] The ruling also underlined that the Final Agreement incorporates environmental protection as one of its fundamental pillars and addressed the repercussions of legal and illegal mining activities and illicit crops in Northern Cauca, highlighting how these factors have damaged the environment and altered traditional relationships with the river. In addition, a previous decision of the Superior Court of Medellín was cited that highlighted the importance of protecting the Cauca River for its ecological and cultural value and as an essential water resource for the communities.[45]

Based on these arguments, the Court finally ruled as follows: 'First: Recognize the "Cauca River" as a subject of rights. Second: Accredit the "Cauca River" as a victim in Case 05'. This was an unprecedented decision that endorsed the claim of the petitioners and its conceptual background.

V. Other 'Subject Rivers' in a Comparative Context and the Specificity of the Colombian Case in the Era of 'Transitions'

The Cauca was not the first river to be declared a legal subject, nor is it the most well-known. Several other experiences can be found in the comparative scenario, even beyond the 'Andean' context, often linked to the protection of the indigenous worldview.[46]

[42] ibid 36-40.
[43] ibid 40-60.
[44] ibid 31.
[45] ibid 20.
[46] The short overview that follows only considers cases in which rivers have been declared legal subjects. A wider analysis should study and compare all the other cases in which other natural entities have been granted rights. See, for instance, Bagni, 'The Rights of Nature in Colombian and Indian Case-law' *Revista Análisis Jurídico-Político*, 4, 99-

In New Zealand, in 2010, the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act was passed, aiming to address the human-induced damage to the river. Acknowledging the spiritual bond with the river of the Iwi community, the act created a co-governance body comprised of members appointed by the Waikato River Clean-Up Trust, Iwi representatives, and the national government.[47] In 2012, the Ngāti Manawa Claims Settlement Act acknowledged the Ngāti Manawa's connection to the Rangitaiki and Wheao Rivers and their tributaries which are regarded as taonga and tipuna with their own mauri (life force).[48] In 2017, the Te Awa Tupua Act was passed, which declared the Whanganui River a legal person with fundamental rights. The Act's stated purpose is 'to record the acknowledgements and apology given by the Crown to Whanganui Iwi in Ruruku Whakatupua-Te Mana o Te Iwi o Whanganui' (Art 3) and to 'recognise, respect, and protect the special relationship of the iwi and hapū of Whanganui with the Whanganui River' (Art 69, para 8).[49] In 2019, another act was passed in New Zealand, the Ngāti Rangi Claims Settlement Act. The Ngāti Rangi are one of four Whanganui large natural groups, whose area of interest includes Ohakune and Waiouru, and borders Raetihi. The act declared Te Waiū-o-Te-Ika, a Whangaehu River catchment, as a 'living and indivisible whole from Te Wai ā-moe to the sea, comprising physical (including mineral) and metaphysical elements, giving life and healing to its surroundings and communities' (Art 107).[50]

In Australia, in 2017, the Yarra River Protection Act was adopted, recognizing the Yarra River as a living legal entity. This legislation includes the Wurundjeri people in the river's management and is notably the first Australian law to be co-titled in a traditional language.[51]

In India, on 20 March 2017, the High Court of Uttarakhand ruled that the Ganga and Yamuna rivers were at risk of disappearing and consequently declared them legal entities with rights. The Court designated two high-ranking state officials as legal guardians of these rivers to represent and protect their rights.[52]

In Ecuador, in 2021, the Constitutional Court found that the Ministry of Water had violated the rights of the Aquepi River by excessively allocating water from it. It recognized the Aquepi River as a subject entitled to rights under nature, affirming its right to have its structure and flow

124 (2022).

[47] Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010, 7 May 2010.

[48] Ngāti Manawa Claims Settlement Act 2012, 5 April 2012.

[49] Te Awa Tupua (Whanganui River Claims Settlement) Act 2017, 20 March 2017.

[50] Ngāti Rangi Claims Settlement Act 2019, 31 July 2019.

[51] Yarra River Protection (Wilip-gin Birrarung murron) Act no 49 of 2017.

[52] *Mohd. Salim* v *State of Uttarakhand and others* [2017] High Court of Uttarakhand 126/2014, [2017] SCC OnLine Utt 367. The decision was later overturned by the Supreme Court: *State of Uttarakhand* v *Mohd. Salim* [2017] India Supreme Court 016879/2017.

respected.[53] On 5 July 2024, a Court in Quito declared the Machángara River, flowing through the city, as a legal subject. The case was brought as a Protection Action by the Kitu Karu indigenous people to address the severe pollution affecting the river.[54]

In 2019, a municipal ordinance from Orurillo in the province of Melgar, Puno region, Peru, recognized Madre Agua – Yaku-Unu Mama as a subject of rights. This designation includes subterranean aqueducts, springs, rivers, ponds, and lakes. The ordinance based its arguments on the indigenous Quechua worldview.[55] In the same year, another municipal ordinance, from Melgar, Arequipa, Peru, recognized the Llallimayo River as a subject of rights.[56] In 2024, the Superior Court of Justice of Loreto, Peru, ruled in favour of recognizing the Marañón River, a crucial tributary in Peruvian territory, as an entity with inherent rights, including the rights to exist, flow, and remain free from contamination. The ruling also designated the Kukama people (that brought the case) as representatives, guardians, and defenders of the Marañón and its tributaries.[57]

These experiences reveal how the recognition of rivers as subjects has become a common feature in several legal traditions, through various means (legislative measures, case-law developments, etc). Despite the profound differences between these systems, a common element can be identified: the link between such recognition and the protection of the indigenous worldview, which makes the former more frequent in countries where the latter has greater influence.

The case of the Cauca River aligns with this trend, but it also presents an unprecedented peculiarity: indeed, no river had been declared 'victim' of a conflict before. This highlights a deep connection between Colombia's 'ecological' constitutionalism and the developments of transitional justice within that system.

Although these two aspects might seem unrelated in theory, their practical convergence underscores that, in contemporary legal systems, no 'transition' occurs in isolation. On the contrary, if today's law is increasingly becoming a 'law of transitions',[58] it is clear that all the main

[53] Corte Constitucional del Ecuador 15 December 2021 no 1185-20-JP/21.

[54] Tribunal de Garantías Penales de Pichincha 5 July 2024, news available at www.garn.org.

[55] Municipalidad Distrital de Orurillo, Ordenanza Municipal 26 December 2019 no 006.

[56] Municipalidad Provincial de Melgar, Ordenanza Municipal 23 September 2019 no 018.

[57] Corte Suprema de Justicia de Loreto 19 March 2024, news available at www.garn.org.

[58] For a preliminary work, see R. Buchanan and P. Zumbansen eds, *Law in Transition: Human Rights, Development and Transitional Justice* (London: Hart Publishing, 2014); see also L. Ruggeri, 'Which Law for Transition? The Market and the

aspects of these changes – ecological, energy-related, technological, digital and constitutional – are intertwined. This conclusion holds significant relevance also for countries not currently undergoing a process of transitional justice: it suggests that understanding the interconnected nature of various transitions can provide valuable insights into addressing complex legal and societal challenges.

VI. Interest and Insights *vis-à-vis* European and Italian Legal Theory and Practice

The latter observation raises the issue of the interest of the experiences presented here for other legal contexts, as the discourse surrounding the 'rights of nature' – and their interrelation with the rights of the 'communities' – is gaining increasing relevance in European and Italian debates as well.[59] In this perspective, theoretical and doctrinal issues merit some exploration, as do some normative features as well as technical and procedural aspects.

From the theoretical standpoint, European and Italian scholarship that has studied the 'Andean' developments and their relevance for the old continent tends to challenge the assumption that those experiences really constitute a paradigmatic shift as they claim.[60] According to this view, the normative and judicial declarations of the 'rights of nature' would elude the conceptually fundamental issue of the definition of 'nature'.[61] This leads to

Person in a Prism of Sustainability', in L. Ruggeri and K. Zabrodina eds, *Making Production and Consumption Sustainable: A Global Challenge for Legislative Policies* (Vienna: SGEM, 2023), 35-64; on constitutional transitions, see F. Biagi, *European Constitutional Courts and Transitions to Democracy* (Cambridge: Cambridge University Press, 2019).

[59] In the European context, see H. Schoukens, 'Should Trees Have Standing also in the European Union?' *Journal for European Environmental & Planning Law*, 15(3-4), 273-274 (2018); K. Hovden, 'The Best Is Not Good Enough: Ecological (Il)literacy and the Rights of Nature in the European Union' ibid, 281-308; H. Schoukens, 'Granting Legal Personhood to Nature in the European Union: Contemplating a Legal (R)evolution to Avoid an Ecological Collapse (Part 1)' ibid, 309. In the Italian context, for an overview, see M. Carducci, 'Natura (diritti della)' *Digesto delle discipline pubblicistiche* (Torino: UTET, 2017), VII supplement; see also, among others, F.G. Cuturi ed, *La Natura come soggetto di diritti. Prospettive antropologiche e giuridiche a confronto* (Firenze: Editpress, 2020); A. Pisanò, *Diritti de-umanizzati. Animali, ambiente, generazioni future, specie umana* (Milano: Giuffrè, 2012); in the private law perspective, see R. Míguez Núñez, n 3 above; U. Mattei and A. Quarta, *Punto di svolta. Ecologia, tecnologia e diritto privato. Dal capitale ai beni comuni* (Sansepolcro: Aboca, 2018).

[60] M. Carducci, 'La solitudine dei formanti di fronte alla natura e le difficoltà del costituzionalismo "ecologico"' *DPCE Online*, 23(2), 205-219, 216 (2023).

[61] ibid. On this issue, see F. Ducarme and D. Couvet, 'What Does "Nature" Mean?' *Palgrave Communications*, 6, 14 (2020). Definitory issues are typical in the field of environmental rights. See C. Dazzi and G.L. Papa, 'A New Definition of Soil to Promote

contradictory provisions and even 'ruptures' in the Andean constitutional texts, which reflects how recognition of those rights would follow political revindications and anthropological perspectives rather than scientific evidence.[62] The example of 'rivers' is specifically mentioned in this literature, arguing that their recognition as 'entities' presupposes, depending on the context, different conceptions of nature and, thus, enables diverse forms of environmental protection with correspondingly different concrete effects.[63]

In the normative perspective, these theoretical doubts translate, *de iure condendo*, into the cautious conclusions of the documents commissioned by the European institutions to discuss the possibility of including the legal subjectivity of nature in EU law. Indeed, while the study *Towards an EU Charter of the Fundamental Rights of Nature* was prepared for the European Economic and Social Committee,[64] another study, commissioned by the Policy Department for Citizens' Rights and Constitutional Affairs of the European Parliament, concluded that the recognition of rights of nature (RoN) does not entail 'a shift of paradigm in law', as '[w]hen deconstructing the RoN concept, no radical new instruments come to light compared with what we have today'.[65]

De iure condito, this explains why, so far, these rights have not been recognized in EU law, nor in the domestic law of most Member States. The Italian example is paradigmatic: while the constitutional amendment of Art 9 in 2022 was due to 'the pressure to develop a reaction against the degradation of the environment',[66] it did not include any reference to the rights of nature.[67]

Soil Awareness, Sustainability, Security and Governance' 10(1) *International Soil and Water Conservation Research*, 99-108 (2022).

[62] M. Carducci, n 60 above, with a reference to A.C. Wolkmer, M.d.F.S Wolkmer and D. Ferrazzo, 'Derechos de la Naturaleza: para un paradigma político y constitucional desde la América Latina', in L. Estupiñán Achury, C. Storini, R. Martínez Dalmau and F.A. De Carvalho Dantas eds, *La naturaleza como sujeto de derechos en el constitucionalismo democrático* (Bogotá: Universidad Libre, 2019), 71-108.

[63] M. Carducci, n 60 above, 226.

[64] M. Carducci et al, *Towards an EU Charter of the Fundamental Rights of Nature* (Brussels: European Union, 2021).

[65] J. Darpö, *Can Nature Get It Right? A Study on Rights of Nature in the European Context* (Brussels: European Union, 2021).

[66] D. Di Micco and M. Graziadei, 'The Italian Way to the Rights of Nature', in M. Graziadei and M. Torsello eds, *Italian National Reports to the XXIst International Congress of Comparative Law – Asunción 2022* (Napoli: Edizioni Scientifiche Italiane, 2022), 79-100.

[67] As known, the constitutional amendment (legge costituzionale 11 February 2022 no 1) introduced the protection of 'the environment, biodiversity and ecosystems, also in the interests of future generations' and established that 'State law governs the ways and forms of protection of animals'. The reform was complemented by the addition of references to the protection of the environment in Art 41.

This is then replicated at the practical level of judicial decisions and in the technical perspective of litigation. In this regard, Italian judges show special caution. Indeed, not only has no recognition of legal subjectivity of natural entities occurred in the country but no positive decisions have been taken in situations where other similar European experiences already opened the way. The recent ruling in the *Last Judgment* case (*Giudizio Universale*) – if compared with the *Urgenda* case in the Netherlands – is a paradigmatic example: while dismissing the case for procedural reasons (lack of jurisdiction), the Court observed that 'decisions regarding the methods and timing of managing the phenomenon of anthropogenic climate change [...] fall within the sphere of competence of political bodies'.[68]

Evidently, the 'Italian approach' tends to distrust any risk of transcendence of judicial adjudication in the sphere of political choices.[69] This clearly echoes the theoretical postures mentioned above and marks a clear difference from the Andean and Colombian experiences (the rights of nature are not formally recognized in the Colombian constitution either, but this did not prevent creative interpretations in that context).

And yet alternative postures have been proposed in the literature. Some private law scholars in particular have proposed that certain natural areas may be considered already 'recognized as legal persons to protect their integrity' under current Italian law.[70] The case of national parks is referenced, as '[i]t is very difficult to distinguish the institution of a park

[68] Tribunale di Roma 26 February 2024 no 35542, available at www.giudiziouniversale.eu, translation by the author. On the case, see C.V. Giabardo, 'Qualche annotazione comparata sulla pronuncia di inammissibilità per difetto assoluto di giurisdizione nel primo caso di Climate Change Litigation in Italia' *www.giustiziainsieme.it*, 29 April 2024; L. Saltalamacchia, 'Giudizio Universale: Insights from a Pending Leading Case', in E. D'Alessandro and D. Castagno eds, *Reports & Essays on Climate Change Litigation* (Torino: Università degli Studi di Torino, 2024), 15-22. On the other hand, in the *Urgenda* case (The Hague District Court 24 June 2015 no 200.125.177/01, *Urgenda Foundation* v *The State of the Netherlands*, available at www.rechtspraak.nl; The Hague Court of Appeals 9 October 2018 no 200.178.245/01, *Urgenda Foundation* v *The State of the Netherlands*, available at www.rechtspraak.nl; Supreme Court of the Netherlands 20 December 2019 no 19/00135, *The State of the Netherlands* v *Urgenda Foundation*, available at www.rechtspraak.nl), the argument of 'future generations' was considered valid. See M. Wewerinke-Singh and A. McCoach, 'The State of the Netherlands v Urgenda Foundation: Distilling Best Practice and Lessons Learnt for Future Rights-Based Climate Litigation' 30 *Review of European, Comparative & International Environmental Law*, 275-283 (2021); R. Perona, J. Quintero-Lyons and F. Luna Salas, 'The Urgenda Climate Case: Reexamining Its Legal Rationale, Debates, and Implications Four Years Later' 19 *Saber, Ciencia y Libertad*, 1, 117-139 (2024).

[69] Which was an issue in the *Urgenda* case as well. See L. Bergkamp, 'A Dutch Court's 'Revolutionary' Climate Policy Judgment: The Perversion of Judicial Power, the State's Duties of Care, and Science' 12 *Journal for European Environmental & Planning Law*, 3-4, 241-263 (2015).

[70] D. Di Micco and M. Graziadei, n 66 above, 85.

over a certain territory from the environmental personhood now enjoyed by several natural entities across the world', like, once again, rivers.[71] Legge no 168/2017 is also mentioned, which 'recognizes for the first time [...] that certain original communities have normative primary powers concerning the management of the natural, economic and cultural heritage whose territorial basis consists of the collective property of certain lands'.[72]

The issue of collective property and the commons does not lack doctrinal elaboration in Europe and Italy.[73] Besides its inherent complexity, in the Italian debate this topic has been intertwined with proposed re-interpretations of pre-existing legal concepts, such as the '*usi civici*', or more recent normative provisions, such as those of the Code of Cultural Heritage and Landscape (decreto legislativo 22 January 2004 no 42).[74] Some literature goes as far as to suggest a general reframing of the concepts of property (or even contracts), challenging a purely economic understanding of the expression.[75]

Clearly, there is a profound difference between legal techniques focusing on 'non-individual' approaches to property or other rights, like the ones just mentioned, and those 'subjectivizing' legal entities, already common in the Latin American experiences described above. However, in both cases, some fading of the traditional dichotomy between 'persons' and 'things' can be observed, challenging the understanding of nature solely as

[71] ibid, with a reference to the Whanganui River in New Zealand.

[72] ibid, with a reference to legge 20 November 2017 no 168.

[73] For an overview, see M. Cornu, F. Orsi and J. Rochfeld eds, *Dictionnaire des biens communs* (París: PUF, 2nd ed, 2021). In the Italian context, see M.R. Marella ed, *Oltre il pubblico e il privato. Per un diritto dei beni comuni* (Verona: Ombre corte, 2012); S. Rodotà, 'Beni comuni. Una strategia globale contro lo human divide', ibid, 311-332. U. Mattei, *Beni comuni. Un manifesto* (Roma-Bari: Laterza, 2011); U. Mattei and A. Quarta, n 59 above; R. Míguez Núñez, 'Tres agitaciones (de)constructivas de los bienes comunes' 14 *Oñati Socio-Legal Series*, 2, 348-363 (2024). For a general contextualization within the theory of goods, see P. Grossi, 'Beni: itinerari fra "moderno" e "pos-moderno"' *Rivista trimestrale di diritto e procedura civile*, 4, 1059-1085 (2012); E. Capobianco, G. Perlingieri and M. D'Ambrosio eds, *Circolazione e teoria dei beni. Incontro di Studi dell'ADP, Lecce 21-22 marzo 2019* (Napoli: Edizioni Scientifiche Italiane, 2021).

[74] G. Garzia, *Difesa del suolo e vincoli di tutela. Attività amministrativa di accertamento e di ponderazione* (Milano: Giuffrè, 2003); C.A. Graziani, 'Terra e proprietà ambientale', in A. Donati, A. Garilli, S. Mazzarese and A. Sassi eds, *Diritto privato. Studi in onore di A. Palazzo* (Milano-Torino: UTET, 2009), III, 357. M. Renna, 'Vincoli alla proprietà e diritto dell'ambiente' *Il diritto dell'economia*, 4, 715-755 (2005); P. Grossi, *Il mondo delle terre collettive: itinerari giuridici tra ieri e domani* (Macerata: Quodlibet, 2019).

[75] S. Persia, 'Proprietà e contratto nel paradigma del diritto civile "sostenibile"' *Rivista quadrimestrale di diritto dell'ambiente*, 1, 4-20 (2018); M. Pennasilico ed, *Contratto e ambiente. L'analisi «ecologica» del diritto contrattuale* (Napoli: Edizioni Scientifiche Italiane, 2013); P. Perlingieri, 'Persona, ambiente e sviluppo', ibid, 321; R. Míguez Núñez, 'Beni a valore non prettamente economico: rilievi privatistici per un diritto "relazionale"' *Rassegna di diritto civile*, 431-444 (2023).

a resource for exploitation and suggesting new 'relational' views focusing on the holistic *continuum* between humans and the environment.[76]

Reference to the indigenous worldview found in the Andean and Colombian experiences regarding these developments is, then, particularly interesting: indeed, in that perspective, the two issues (the non-individual understanding of rights and the subjectivity of natural entities) are seen as inseparable. From a comparative standpoint, such an observation may stimulate deeper research and doctrinal elaborations to overcome the current conceptual shortcomings of the ecological constitutionalism mentioned above, as well as to foster potentially less cautious postures within the European context.

VII. For a Concluding Remark: 'Those Who Honour the Law', or the Responsibility of Today's Legal Scholarship

This leads to one last remark. Indeed, as mentioned above, the experiences of 'new constitutionalism' are considered today as fascinating possibilities to overcome Western categories, offered by cultural and legal systems over which those categories were frequently imposed in the past, disregarding their peculiarities. In this sense, the case of the Cauca River, 'subject' and also 'victim', goes even beyond other examples from the continent and above. This may invite other 'traditional' legal systems to reconsider their conceptualizations, in search of new horizons that offer innovative solutions to epochal challenges like that of sustainability, as confirmed by the growing interest in these new realities in legal scholarship.

However, this interest cannot lead to premature conclusions. On one hand, it would not be wise to advocate for a complete dismissal of classical categories, even while recognizing their current deficits. It would also be incongruous to suggest that Western legal systems could simply adopt these emerging perspectives, as a direct transplant could result in an equally contradictory and decontextualized operation as the one that led to the use of purely Western categories in those cultural contexts.

Instead, what might be appropriate is a re-evaluation and reframing of classical legal categories and principles within the Western tradition, in light of these comparative experiences. In this regard, the mentioned examples may actually be of great inspiration, not only, and perhaps not necessarily, for their conclusions, but for a methodological approach that

[76] See U. Mattei, n 73 above, 54, 62; R. Míguez Núñez, 'Né persone né cose: lineamenti decostruttivi per un rinnovamento concettuale della «summa divisio»' *Rivista critica del diritto privato*, 39, 359-388 (2021); R. Míguez Núñez, 'Beni a valore non prettamente economico', n 75 above.

recognizes and restores the central role of the law.

Indeed, confident in the strength of its refined legal tradition, the Western context appears sometimes reluctant to seek alternative legal solutions, deferring all responsibilities to the realm of political decisions, as seen above. Instead, what the experiences addressed here may suggest to Western legal thinking is the possibility to recuperate the 'role of the law', whose most ancient vocation lies precisely at the crossroads between purely philosophical speculation and mere technical governance, ie, in the construction and constant adaptation of conceptual elaborations, capable of addressing ever-changing social problems while preserving overarching principles.

Here lies the greatest challenge for today's and tomorrow's law, and one of the most delicate responsibilities of legal academia. Facing the most compelling issues of contemporary times, legal theoretical speculation and practical doctrines are invited to rethink and reframe their categories to preserve their efficacy.

After all, even Sophocles, while celebrating the exceptionality of humans, already acknowledged the limits of their action and the importance of the law in that regard:

'from death there's no release [...].
Humans turn their clever aptitude
sometimes to bad, and sometimes to good.
Those who honour the law,
revering the gods, raise their country secure:
yet there's no country for those veering off into ways of error through arrogance'.[77]

[77] Sophocles, n 1 above, 27.

The Use of Fiscal Levers to Foster Green Communities: US and EU Strategies

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Abstract

The use of fiscal leverage is crucial for promoting green communities and achieving the Sustainable Development Goals (SDGs). The paper examines the role of environmental taxation in fostering sustainable practices and combating climate change by integrating fiscal measures with human and environmental rights. The emergence of circular taxation has replaced the linear model, favouring recycling and waste reduction. Finally, the fiscal policies of the United States and the European Union, with the Inflation Reduction Act and the Green Deal Industrial Plan, respectively, are analysed, highlighting the need for international cooperation for a fair and inclusive ecological transition.

Keywords

Tax for SDGs, Environmental Taxation, Ecological Transition, Taxation, Pollution, Green Deal Industrial Plan, Inflation Reduction Act.

I. The Crucial Role of Environmental Taxation in Achieving the Sustainable Development Goals

The complexity of the global environmental challenges suggests that only an integrated approach, including fiscal measures, can progressively achieve the Sustainable Development Goals (SDGs)[1] and mitigate the effects of climate change.

Tax revenues are the most sustainable source of revenue for governments and play a crucial role in financing the Sustainable Development Goals, strengthening a country's ability to withstand external shocks.[2]

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[1] We refer to the 17 goals to be achieved by 2030 (Sustainable Development Goals – SDGs), defined in the document 'Agenda 2030 for Sustainable Development', approved on 25 September 2015 at the 70th General Assembly of the United Nations (UN Resolution A/RES/70/1 'Transforming Our World: The 2030 Agenda for Sustainable Development'; E. Giovannini and A. Riccaboni, *Agenda 2030: A Journey through the Sustainable Development Goals* (Roma: Flavia Belladonna, Alleanza Italiana per lo Sviluppo Sostenibile – ASviS, 2021).

[2] United Nations Development Programme (UNDP), *Tax for Sustainable Development Goals Initiative. Annual Report 2023* (New York: UNDP, 2024).

In this sense, politics and taxation must work together to protect the environment as a common good, focusing on the relationship between the rights of the individual and the rights of nature.

This approach is in line with a unitary conception of the environment, understood both in an objective sense, as a legal good, and in a subjective sense, as a fundamental human right.[3]

The definition of the environment as an intangible legal asset, as a right of all living beings, with unitary value and deserving of priority protection, referred to in numerous constitutional court pronouncements, has facilitated its inclusion within our Constitution.[4]

This necessitated the establishment of new, more specific regulatory frameworks and the identification of economic resources needed to guarantee their protection and achieve the sustainability objectives set. Additionally, it has led to the implementation of governmental eco-incentives aimed at rewarding and encouraging environmentally virtuous behaviour.[5]

At present, sustainability is a new paradigm guiding States and individuals, public policies and private lifestyles, production systems, companies and workers, including when it comes to identifying actions to be taken or improved.[6]

[3] On the relationship between environmental protection and the protection of the person and their dignity, see P. Perlingieri, 'Persona, ambiente e sviluppo', in M. Pennasilico ed, *Contratto e ambiente. L'analisi "ecologica" del diritto contrattuale* (Napoli: Edizioni Scientifiche Italiane, 2016); P. Perlingieri, *Il diritto civile nella legalità costituzionale secondo il sistema italo-europeo delle fonti. Attività e responsabilità* (Napoli: Edizioni Scientifiche Italiane, 4th ed, 2020), IV; G. Rossi ed, *Diritto dell'ambiente* (Torino: Giappichelli, 2021); V. Ficari, 'Le modifiche costituzionali e l'ambiente come valore costituzionale: la prima pietra di una "fiscalità" ambientale, zone economiche speciali (Zes) e possibili zone economiche ambientali (Zea)' *Rivista trimestrale di diritto tributario*, 4, 855-866 (2022).

[4] It was a constitutional change that unfolded quietly, much like the revision of Arts 9 and 41 of the Constitution. This can however unequivocally represent the radical paradigm shift brought about by transitions, which inevitably also manifests itself at both the constitutional and normative levels. On this point, see B. Boschetti, 'Legal (Transformative) Eco-design for the "Net-zero Age" and Its Economy' *Istituzioni del federalismo*, IV, 821-850 (2022); C. Casonato, 'Diritto e altre forme di sapere. Una breve introduzione al costituzionalismo ambientale' *Diritto pubblico comparato ed europeo*, 1-6 (2023); F. De Leonardis, 'L'ambiente tra i principi fondamentali della Costituzione' 3 *federalismi.it*, 1-3 (2004); D. Amirante, 'L'ambiente preso sul serio. Il percorso accidentato del costituzionalismo ambientale' *Diritto pubblico comparato ed europeo*, 19-20 (2019). In case law, *ex multis* Corte costituzionale 11 July 1989 no 391; Corte costituzionale 16 March 1990 no 127; Corte costituzionale 3 October 1990 no 430.

[5] On this point, see T. Ronchetti and M. Medugno, 'Dal Decreto fiscale alla Legge di bilancio 2020: una spinta alla sostenibilità' *Ambiente & sviluppo*, I, 37-54 (2020).

[6] For an in-depth discussion on sustainability as a new paradigm guiding public policies, see M. Magatti, *Cambio di paradigma, uscire dalla crisi pensando al futuro* (Milano: Feltrinelli, 2017); M. Libertini, 'Per una ripresa della cultura della

Undoubtedly, among these, greater civic and social participation,[7] together with innovation in the way of living and inhabiting the planet, combating waste and ensuring a fairer distribution of resources, will be able to guarantee well-being for present and future generations.

In this context, therefore, the role of law in sustainable development should also be profoundly innovated. This should be done through a taxation system that acts as a lever of reward for all taxpayers.

Tax law is thus a candidate to make an important contribution to the transition of economic systems towards more sustainable models and, in general, towards the achievement of all those objectives necessary to address the planet's major environmental emergencies, as indicated by the international community, so that these challenges can also be opportunities for economic and social growth.[8]

In addition to its traditional function of allocating public expenditure through the taxation schemes typical of each State, the tax system has the capacity to influence the decisions of citizens and businesses by modulating the intensity of taxation according to their specific activities and characteristics.[9]

In fact, taxation choices fall mainly under the competence and discretion of the national legislator, who makes them uniformly available throughout the State.[10]

programmazione. A proposito di PNRR e di problemi di tutela dell'ambiente' 5 *federalismi.it* (2023).

[7] On the concept of active citizenship, see G. Arena, 'Comunicare per co-amministrare' *Amministrare*, 337-345 (1997); Id, *Cittadini attivi* (Bari-Roma: Laterza, 2006); Id, 'Amministrazione e società. Il nuovo cittadino' *Rivista trimestrale di diritto pubblico*, I, 43-55 (2017).

[8] On the role of tax law in the ecological transition, see A. Uricchio and T. Calculli, 'La rigenerazione urbana entro e oltre il contesto della transizione ecologica: la sfida della fiscalità locale' *Diritto e pratica tributaria*, 5 (2023).

[9] On the role of taxation in modulating the decisions of citizens and businesses, see A.F. Uricchio and G. Selicato eds, *Green deal e prospettive di riforma della tassazione ambientale (Atti della II Summer School in Circular Economy and Environmental Taxation, Bari 17 – 24 settembre 2021)* (Bari: Cacucci, 2022).

[10] In the reform of Title V of legge costituzionale 18 October 2001 no 3, it is expressly stated that the 'protection of the environment and the ecosystem' is one of the matters of exclusive State competence pursuant to Art 117, para 2, letter s) of the Constitution, while, in a concurrent capacity, the Regions are assigned the functions inherent to the 'valorization of the environmental and cultural heritage'. In this way, the State ensures a consistent level of environmental protection across the entire national territory, setting a limit to the authority that the Regions and Autonomous Provinces have in other matters of their competence. This prevents them from undermining or lowering the environmental protection levels established by the State; M. Cecchetti, 'La materia "Tutela dell'ambiente e dell'ecosistema" nella giurisprudenza costituzionale: lo stato dell'arte e i nodi ancora irrisolti' 7 *federalismi.it*, 1-32 (2009). On this point, even Corte costituzionale 10 April 2015 no 58 emphasises how the State's unitary action is necessary and justified to 'guarantee adequate and non-reducible levels of environmental protection throughout the national territory'.

This ambition also concerns the institutions of the European Union, which in driving the change, aim to harmonize the environmental policies of the various Member States. In this regard, it should be noted that in fiscal matters, since taxation constitutes a direct expression of a State's sovereignty, the law has more difficulty overcoming the exclusively national dimension compared to other sectors. On the other hand, the globalization of the economy stimulates the harmonization of regulatory regimes of individual States, including those related to taxation.

Indeed, environmental taxation in European countries appears heterogeneous and fragmented, lacking organic provisions.[11] This renders definitional efforts and classifications futile, creating difficulties that in some cases even affect the very nature of taxes (taxes, levies, contributions).

In this heterogeneous context, the concept of the environment as a common good shared by normative and interpretative sources of all ranks[12] should inspire governments of local, national, and international institutions to promote environmental policies. Within the latter, environmental taxation is believed to be one of the most suitable and effective for achieving a sustainable environment, but above all for ensuring a fair distribution of development opportunities.

Climate change therefore constitutes an emergency that institutions must also address fiscally, adopting all possible instruments, both regulatory and taxation.[13]

In 2022, the United Nations Development Programme (UNDP) launched an initiative called 'Tax for SDGs', with the aim of helping each country improve domestic resource mobilization and make progress towards the SDGs.[14]

Tax for SDGs sees taxation not only as a useful tool for revenue collection but also as a policy instrument to encourage sustainable growth

[11] On this point, see A. Comelli, 'European Profiles of Environmental Taxation' *Diritto e pratica tributaria*, VI, 2264-2282 (2023).

[12] For an in-depth study on the subject, see S. Grassi, 'La tutela dell'ambiente nelle fonti internazionali, europee ed interne' 13 *federalismi.it*, 1-46 (2023).

[13] In this sense, see M. Sadowsky, *Fiscal Policies to Mitigate Climate Change* (Cambridge: Intersentia, 2023); O. Blanchard, C. Gollier and J. Tirole, 'The Portfolio of Economic Policies Needed to Fight Climate Change' *Annual Reviews of Economics*, 689-722 (2023), available at https://www.annualreviews.org/content/journals/10.1146/annurev-economics-051520-015113.

[14] On the Tax for SDGs initiative, see T. Beloe and A. Khan, 'How Do Taxes Drive the Sustainable Development Goals?' *Global Issues*, available at https://www.globalissues.org/news/2024/05/07/36667; G. Lafortune et al, *Europe Sustainable Development Report 2023/24* (Paris: SDSN, SDSN Europe and Dublin: Dublin University Press, 5th ed, 2024); UN Resolution A/RES/70/1, n 1 above.

strategies and influence the behaviour of citizens and businesses towards desired outcomes.

In 2023, this initiative made significant progress, with no fewer than 22 National Commitment Plans (CEPs) being signed. Through CEPs, governments are supported and tax administrations strengthened in tackling and combating tax avoidance, tax evasion, and any illicit financial flows.

Tax for SDGs supports governments in aligning their tax policies with the SDGs, including developing countries in international discussions on taxation.

Developing countries need more funding and effective policy solutions, which depend on the capacity of their tax administrations to generate revenue and align their tax policies with those of more developed countries.

The initiative facilitates the alignment and harmonization of tax policies globally, with a focus on achieving the same SDG targets, delivering tangible results.

Tax for SDGs also includes a joint initiative, OECD/UNDP Tax Inspectors Without Borders (TIWB), which involves sending experts to tax administrations in developing countries to provide assistance and international cooperation in ongoing audit cases and tax issues.

The success of the Tax for SDGs initiative testifies to collaborative efforts between nations, international organizations, academia and civil society, including through the establishment of strategic partnerships that strengthen taxpayers' confidence.[15]

II. From Linear to Circular Taxation: A New Paradigm for Sustainability

Regulatory interventions in the field of taxation, aimed at increasing revenue through new contributions or the raising of existing rates, generate resources to be used in the perverse spiral of ever-increasing debt.[16] In this system, linear taxation, dominated by the principleof tax neutrality, fearful and preoccupied with influencing the decisions,

[15] United Nations Development Programme (UNDP) Administrator Achim Steiner said: 'The success of the Tax for SDGs initiative is a testament to the collaborative efforts between nations, international organizations, academia and civil society. Together, we have exchanged best practices, knowledge and lessons learned, creating a community dedicated to enacting real change'.

[16] For an in-depth discussion on the impact of tax regulatory interventions on public debt, see F. Gallo, 'Etica fiscale e fisco etico' *Neçtepa* (2015); F. Gallo, 'La funzione del tributo ovvero l'etica delle tasse' *Rivista trimestrale di diritto pubblico*, II, 399-411 (2009).

preferences and behaviour of taxpayers and businesses, thus loses sight of extra-fiscal purposes, attributing relevance only to those of revenue and providing the State with resources to spend, without regard to the merits of the uses.

We thus end up, too many times, with 'spending for spending'[17] and, thus, also waste. In essence: more revenue, more spending, more debt.

Linear taxation then becomes exponential finance by virtue of which the tax burden grows,public spending grows, and public debt grows.

However, environmental taxes, as such, while maintaining their fiscal purpose of generating revenue, should also pursue extra-fiscal objectives aimed at promoting environmentally friendly behaviour or production processes and discouraging polluting production or consumption of limited resources.[18]

Building on this premise, linear taxation has slowly given way to a new model of so-called circular taxation that emphasizes the greater sensitivity of tax authorities to the environment, taxing waste, favouring recycling, limiting unproductive public spending, and thus relaunching development without destroying wealth.[19]

The move to the circular taxation model thus allows for the promotional dimension of taxation to be fully appreciated.[20]

The abandonment of a linear economy and the radical change in our development model require enormous efforts on the part of society, businesses, and institutions – efforts that are increasingly recognized by contemporary lawmakers. This is in fact a real cultural change, one that is unlikely to take place spontaneously and, above all, within a time frame commensurate with the current urgency.

In this scenario, it is evident how tax measures are fundamental to the affirmation of the circular taxation model, which includes both taxes aimed at discouraging unsustainable behaviour and incentives aimed at

[17] In this sense, see A.F. Uricchio, 'I tributi ambientali e la fiscalità circolare' *Diritto e pratica tributaria*, I, 1860-1861 (2017).

[18] Among the new taxes proposed as disincentives are those targeting land waste caused by uncontrolled construction, promoting the responsible use of natural resources and the regeneration of heritage. These measures have been under discussion since 3 October 2023 in the VIII Environment, Territory and Public Works Commission of the Italian Parliament. The related bill (DDL), entitled 'Provisions for the containment of soil consumption and urban regeneration', was presented to the Chamber of Deputies on 26 May 2023.

[19] The circular taxation model is where the circuit 'tax-public expenditure-interest pursued by it' moves in a circle. See A. Perrone, 'Il diritto alla rigenerazione dei brownfields in una prospettiva di fiscalità circolare', in M. Passalacqua and B. Pozzo eds, *Diritto e rigenerazione dei brownfields* (Torino: Giappichelli, 2019).

[20] On this point, see A.F. Uricchio, G. Selicato and M. Aulenta eds, *La dimensione promozionale del fisco* (Bari: Cacucci, 2015); A. Zatti, 'Per una riforma ecologica del fisco italiano: strumenti, prospettive e incognite' (2021), available at www.eccoclimate.org.

promoting sustainable practices.[21] In addition, this approach also includes the application of reduced rates to production that guarantees long- lasting product life cycles or that limits or eliminates waste production, thereby reducing the use of scarce resources and improving product life cycles. One of the principles underlying the circular economy is precisely that all waste becomes an input for new production process.

III. The Evolution of Fiscal Policies for the Ecological Transition and the Strengthening of the Fiscal Social Contract

Every State globally is making a fundamental contribution to combating climate change, with the goal of achieving climate neutrality by 2050 through initiatives that involve a change in the economic and production systems in accordance with the targets identified in the Paris Climate Agreement.[22]

In particular, one of the fiscal policies that the European Union has put in place to support the ecological transition is to shift taxation from labour to pollution.

In this sense, the tax strategy has developed through two complementary perspectives. The first is direct 'regulation', which consists of identifying products that do not conform to specific and clear environmental standards. For example, in the case of vehicles, the production of heat engines could be banned in favour of electric motors by setting up special bans. The second, on the other hand, is the indirect approach, the 'fiscal lever', where lawmakers guide taxpayers towards environmentally responsible behaviour. This is achieved by using taxes as a deterrent and by offering tax benefits as an incentive.[23]

Over time, the first perspective has proven necessary, but not sufficient. In fact, it has proven more profitable to correct the externalities generated by pollution by indirectly influencing the choices of economic operators.

[21] For an in-depth discussion on circular taxation, see A.F. Uricchio, 'La costruzione della società ecologica: il Green New Deal e la fiscalità circolare' *Rivista di diritto agroalimentare*, I, 149-174 (2021).

[22] The concept of 'carbon neutrality' was first introduced in 2015 in the international Paris Climate Agreement. Each State makes Nationally Determined Contributions (NDCs) through non-binding national plans that highlight the policies and measures that governments will implement to combat climate change in order to meet the targets set by the Paris Agreement.

[23] In this sense, see G. Mercuri, 'Strategie europee per mitigare il cambiamento climatico: dalla tassazione del lavoro a quella dell'inquinamento' *Rivista di diritto tributario* (Pisa: Pacini Giuridica, 2023).

At the same time, however, there is a need to limit the promotional use of the 'tax lever' when it leads to the granting of aid incompatible with the Treaty or results in harmful tax competition.

In this context, the European Union has committed to implementing its environmental policy by reinforcing the 'polluter pays principle'. In the fiscal field, this entails 'taxing' or 'de-taxing' certain products to influence the market and favour the reduction of CO_2.

Environmentally oriented tax relief has been particularly effective in intercepting social consensus, as shifting from the perspective compensatory 'polluter pays' principle[24] to the 'polluter pays less' principle has a greater impact on public opinion.

We are therefore moving towards overcoming the now evanescent 'polluter pays' principle in favour of the more evolved principle of 'he who values, benefits'. This innovation could lead to more harmonious protection policies.[25]

Taxation must balance the value of environmental protection with that of economic development. This balance is only achieved when economic activity aligns with the principles of sustainability, presenting those objective and subjective characteristics that the law considers adequate to demonstrate sufficient respect for these principles.

However, this balancing act alone is insufficient to address the complex problem of ecological transition.

The term 'ecological transition' implies a radical rethinking of modes of production and consumption, through the rationalization of the use of resources and raw materials, the adoption of reuse and recycling rather than waste and disposal, the promotion of the sharing economy, and the gradual replacement of fossil fuels with clean and renewable energies.

Such a strategy inevitably requires substantial resources on the part of States to manage the disruptions it may initially generate, but these should be significantly reduced in the long run as the environmental and economic benefits materialize.

[24] For a more in-depth analysis, see A. Buccisano, 'Principio chi inquina paga, capacità contributiva e tributi ambientali', in G. Moschella and A.M. Citrigno eds, *Tutela dell'ambiente e principio "chi inquina paga"* (Milano: Giuffrè, 2014), 113; S.A. Parente, 'Strumenti fiscalità ambientale e solidarietà intergenerazionale' *Quaderni del Dipartimento Ionico*, 13, 254-276 (2020); U. Salanitro, 'Il principio "chi inquina paga": "responsibility" e "liability"' *Giornale di diritto amministrativo*, I, 33-38 (2020); Corte dei Conti Europea, 'Relazione speciale. Il principio "chi inquina paga" non è uniformemente applicato nelle diverse politiche e misure dell'UE' *eca.europa.eu*, 12 (2021).

[25] On this point, see G. Selicato, 'Fiscalità ambientale in Europa', in P. Adriano ed, *La fiscalità ambientale in Europa e per l'Europa* (Bari: Cacucci, 2016), 83-133; A. Uricchio and G. Selicato, 'La fiscalità dello sviluppo sostenibile', in A. Buonfrate and A. Uricchio, *Trattato breve di diritto dello sviluppo sostenibile* (Padova: Cedam, 2023), XXI, 933-975.

Therefore, the reinforcement of tax concessions, such as exemptions, reductions, etc, in favour of companies that reduce CO_2 emissions is certainly welcome. However, these measures should be seen as 'complementary' rather than 'exclusive' instruments with respect to linear taxation.

Various forms of tax exemptions or reductions are often considered 'tax expenditures' necessitating the identification of adequate resources through new revenue streams, forms of borrowing, or the reduction of other expenditure items.

The impact of tax relief on Member States' budgets, coupled with the planned investments for implementing the Green Deal Industrial Plan,[26] probably prompted the European Union to develop a plan to secure the necessary revenues to also cope with the potential inconveniences associated with the ecological transition.

This includes, for example, the revenues generated by emissions trading (ETS)[27] and the carbon border exchange mechanism (CBAM),[28] which aim to prevent the risk of 'carbon leakage' of emissions to third countries, thereby ensuring that global targets are met for 'carbon-intensive' commodities such as aluminium, hydrogen, electricity, iron, steel, and cement.

The main challenge of such initiatives is to strike a balance between intervention through tax measures and the resulting market implications.

In fact, the increase in product taxation could affect the increase in consumer prices, creating greater difficulties for the most vulnerable and

[26] The Plan was presented by the European Commission on 1 February 2023 (COM(2023) 62 final) and aims to counteract the attractiveness measures envisaged by third countries, primarily the United States, with the Inflation Reduction Act (IRA).

[27] The European Emissions Trading System (ETS) aims to ensure that imported goods are charged for their carbon emissions. The EU ETS, with the aim of reducing air pollution, implements the 'polluter pays' principle by requiring stakeholders to obtain a permit for each tonne of CO_2 emitted. On this subject, see R. Alfano, 'L'Emission Trading Scheme: applicazione del principio "chi inquina paga", positività e negatività rispetto al prelievo ambientale' *Innovazione e diritto*, V, 1-18 (2009).

[28] The Border Carbon Adjustment Mechanism (CBAM), established by European Parliament and Council Regulation 2023/956/EU, enacted on 10 May 2023, is part of the European Green Deal. Specifically, it falls within the 'Fit for 55', a broad package of measures proposed by the Commission to guide the European Union towards a 55% reduction in greenhouse gas emissions by 2030, with a view to achieving climate neutrality in all sectors of the economy by 2050. The CBAM can be seen as a system equivalent to the EU ETS but is specifically designed for third-country producers. In this sense, see E. Ceroni, 'The Carbon Border Adjustment Mechanism (CBAM): A Qualitative Leap in Environmental Taxation for a World in Ecological Transition', in O. Trofymchuk and B. Rivza eds, *Proceedings of 23rd International Multidisciplinary Scientific GeoConference SGEM 2023* (Vienna: SGEM World Science, 2023); P. Dè Capitani Di Vimercate, 'L'Emissions Trading Scheme: aspetti contabili e fiscali' *Diritto e pratica tributaria*, 15 (2010); A.E. Caterini, 'A Bottom-up Financial Strategy for a Sustainable Society' *The Italian Law Journal*, 57-65 (2023).

low-income households and, therefore, risking generating forms of 'energy poverty'.[29]

From this perspective, the European Green Deal emphasizes that climate change is so momentous that it calls for appropriate fiscal reforms to 'improve resilience to climate shocks' in deference to a principle of equity in society and the ecological transition.[30]

In this scenario, public resources remain essential, not only to promote industry sectors and foster scientific and technological innovation for the ecological transition 'at home', but also to ensure that the transition is fair, inclusive, and sustainable.

Environmental taxation should aspire to achieve a twofold result in the long run: after generating substantial budgetary revenues, there should be a gradual decrease of these, in line with the adjustment of taxpayers' behaviour to the environmental policy objectives pursued. In this sense, therefore, the erosion of the tax base is a positive indicator of the proper functioning of the measure.

Environmental taxation includes the concept of the 'fiscal social contract,[31] on the basis of which the government uses the financial resources collected through taxes to pursue environmental policy objectives.

The social contract of taxation consists of an implicit agreement between a government and its citizens concerning the collection and allocation of public funds. This relationship, based on the principle of mutual accountability, is a fundamental pillar of modern democratic societies, in which citizens pay taxes and, in return, the government provides public goods and services.

In return for taxes, which serve as a financial resource for the government to provide essential services, citizens expect these public funds to be used efficiently and effectively, according to principles of fairness, equity, and transparency.

This ensures that the fiscal social contract remains strong and that citizens continue to trust the government.

[29] Opinion of the European Economic and Social Committee on 'Combating Energy Poverty and Increasing EU Resilience: The Economic and Social Challenges' (2023/C 146/02); C. Franchini, *L'intervento pubblico di contrasto alla povertà* (Napoli: Editoriale Scientifica, 2021), 33.

[30] G. Perotto, 'Il Green Deal europeo e il sistema delle risorse proprie', in C. Beaucillon and B. Pirker eds, *The EU and Climate Change* (European Papers, 2022), 385-398, available at www.europeanpapers.eu.

[31] On the so-called fiscal social contract, see 'Call for Input: "The Fiscal Social Contract and the Human Rights Economy" Thematic Report to the United Nations General Assembly', issued by the Independent Expert on the effects of foreign debt; L. Vicente, 'The Social Enterprise: A New Form of Enterprise? 70 *The American Journal of Comparative Law*, i155-i184 (2022).

Governments are responsible for fiscal decisions, which must be taken with maximum transparency and as far as possible by involving citizens in the decision-making process.

In turn, citizens have a responsibility to honestly fulfil their tax obligations to society and it is crucial that they recognize their role in the social tax contract by paying their fair share of taxes.

Distorting forms such as tax evasion or tax avoidance weaken the fiscal social contract because they deprive the government of the resources it needs to provide public services.

IV. Competition and Cooperation: Environmental Taxation in the European Union and the United States

The green transition thus puts Europe on the brink between sustainable competitiveness and competitive sustainability.

The Green Deal Industrial Plan for the Net-Zero Age[32] is, however, 'time-bound', with its urgency driven primarily by the pressing need for ecological transition and climate neutrality. In fact, the greatest impetus for further acceleration comes from the powerful investment and financial support plans approved bymany foreign countries, such as the US Inflation Reduction Act (IRA), which aims to finance industryand technologies for the green transition.[33]

Indeed, the measures adopted by the US Government have raised considerable concerns inEurope, mainly due to their protectionist nature. There are fears that the incentives may penalize European industry to the benefit of American industry, even encouraging European companies to relocate to the United States. The tax component in fact stimulatesmobility from one territory to another[34] also through evasion and avoidance phenomena geared towards profiteering shifting.[35]

In this context, defining a unified European response is not easy, given the diversityof interests between the various countries. There are two main reasons for this divergence: the first concerns the difference in tax aid

[32] Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, 'A Green Deal Industrial Plan for the Net-Zero Age' COM(2023) 62 final, Brussels, 1 February 2023.

[33] On this point, see H.Y. Lee, 'The U.S. Inflation Reduction Act (IRA) of 2022: Issues and Implications' *IFANSFOCUS*, available at www.ifans.go.kr.

[34] A. Di Pietro, 'La nuova fiscalità dell'Unione Europea e la crisi finanziaria degli Stati post nazionali', in M.C. Fregni et al eds, *Studi in memoria di Francesco Tesauro* (Padova: Cedam, 2023), I, 351-371.

[35] A.E. La Scala, 'Giustizia fiscale e tutela dei diritti umani nell'era dell'economia globalizzata', ibid 277-313.

granted by the European Commission to individual Member States; the second is related to the volume of European exports to the United States in sectors that could be affected by the new American incentives.[36]

Despite these differences, the European Commission managed to formulate a relatively consistent position. Commission President Ursula Von der Leyen assured that Europe would respond to the US aid plan in a coordinated and calibrated manner, while avoiding subsidy competition, which is not in the interest of either side. Both the US and Europe agreed on the need to create a common alternative to the Chinese monopoly.[37]

At the regulatory level, the first European reaction to the Inflation Reduction Act was the Commission's presentation of the Green Deal Industrial Plan in January 2023. In fact, as is clear, the US intervention accelerated the Green Deal Industrial Plan.

The European Union therefore needs an industrial plan that can ensure that the future of the net-zero economy has a European style and, above all, can be accomplished in Europe, in cooperation, but also in competition, with foreign partners.[38] However, the European Union has instrumental constraints stemming from the complex architecture of its economic and industrial policies.

The adoption of the IRA by the United States certainly put a strain on EU-US relations, justifying the adoption of internal counter-measures.[39] The Industrial Plan, as President Von der Leyen herself made clear, is not only a response to the IRA, but also part of the development of new international partnerships.[40]

The IRA is a budget adjustment measure that covers a broad spectrum of public policy areas. Its central objective is, as the name implies, to bring down inflation and, to this end, it also intervenes with a strong push for domestic 'green' energy production. It is a package of tax relief and support

[36] On the European reaction to the IRA, see L. Ciotti, 'L'Unione Europea di fronte all'Inflaction Reduction Act americano' *Osservatorio sui conti pubblici italiani (OCPI)*, 1-9 (2023), available at https://osservatoriocpi.unicatt.it.

[37] See European Commission, 'Joint Statement by President Biden and President Von der Leyen' (10 March 2023).

[38] On the regulatory competition resulting from the Green Deal at a global level, see E. Chiti, 'Managing the Ecological Transition of the EU: The European Green Deal as a Regulatory Process' 59 *Common Market Law Review*, 19-47 (2022); Id, 'Introduction to the Symposium: Managing the Ecological Transition of the European Union' *Rivista quadrimestrale di diritto dell'ambiente*, I, 9-13 (2021).

[39] European Council Conclusions of 9 February 2023, EUCO 1/23; D. Kleimann et al, 'How Europe Should Respond to the US Inflation Reduction Act' 4 *Policy Contribution*, 1-26 (2023), available at www.bruegel.org.

[40] See European Commission, 'Speech by President Von der Leyen at the College of Europe in Bruges' (4 December 2022).

measures counterbalanced by tighter fiscal leverage and austerity measures in other sectors.[41]

However, it does not just contain 'climate' measures.[42] The IRA can be considered the largest economic investment made by the US in energy security and combating climate change.

As far as the European Union is concerned, the key development in terms of economic and financial support is the fact that the Green Deal Industrial Plan for the Net-Zero Age focuses on industrial capacity and not, as in the past, only on research and innovation in renewable technologies and infrastructure.[43]

This calls for a different approach to State aid, requiring more flexibility, faster access and use, as well as a common European funding base to avoid fragmentation of aid levels within the single market.[44] In fact, for example, incentives for renewables fall under the competence of individual Member States.

State aid plays a decisive role in shaping the future direction of European integration, significantly influencing the tax system.[45]

In the IRA, unlike the European Green Deal – where for structural reasons this would not be possible, as taxation powers are in the hands of the Member States, with limited powers in the hands of the European Union – the main instruments of environmental and climate leverage are of a fiscal nature, in the dual form of credits and deductions.[46]

[41] For an analysis of the IRA and its political and economic implications, see C. Benoit, 'The Inflation Reduction Act Sparks Trade Disputes: What Next?' 6(4) *American Affairs*, 68-80 (2022).

[42] On this topic, see J.L. Ramseur, 'Inflation Reduction Act of 2022 (IRA): Provisions Related to Climate Change' *Congressional Research Service (CRS Report)*, 1-29 (2023).

[43] For a comparison between the Green Deal Industrial Plan and the Inflation Reduction Act, see B.L. Boschetti, 'Il Piano per la net-zero age e l'Inflation Reduction Act: UE v. USA?' *Giornale di diritto amministrativo*, V, 589 (2023).

[44] The State aid system has gradually evolved from a market competition control mechanism to an active aid policy. Undoubtedly, aid regulations have integrated the idea that public spending is indispensable for the achievement of certain social and economic objectives, against which aid rules support and guide spending decisions aimed at public interests of European significance. Aid control is not designed to promote solidarity between States. However, criteria such as a Member State's GDP, its unemployment rate and other similar indicators are used for the distribution of funds, reducing the risk of imbalances between States based on their spending capacity. On this point, see A. Biondi, 'Regolamento RRF e aiuti di Stato' 5 *federalismi.it*, 1-6 (2023); G. Luchena, 'La programmazione europea nello scenario globale' *Euro-Balkan Law and Economic Review*, I, 247-283 (2023); T. Jaeger, 'The Future of State Aid' 2 *European State Aid Law Quarterly*, 117-119 (2022).

[45] C. Fava, *Aiuti di Stato in materia tributaria ed economia sociale di mercato in Europa* (Padova: Cedam, 2024), 22-29.

[46] On this point, see M.T. Monteduro, 'Cambiamenti climatici e politiche fiscali: impatti sociali ed effetti economici del pacchetto europeo "Fit for 55"' *Rivista di diritto finanziario e scienza delle finanze*, IV, 447 (2021).

These characteristics raise a number of critical issues.

Precisely because it focuses on fiscal measures, the effects of the IRA are expected to remain largely unpredictable, at least in terms of its impact on the federal budget, its environmental outcomes, and, most importantly, its ability to attract European companies, disrupt the European market, and influence a 'Made in Europe' ecological transition. Additionally, there are concerns about the possible destabilizing effects on international trade under the control of the World Trade Organization (WTO).

The brief outline above allows us to outline some differences between the European and US approaches.

While the European Union can rely mainly on funds financed through public debt to achieve the ecological and energy transition, the IRA does not put any funds on the table, let alone financed through public debt, even though a possible lower fiscal leverage would still have to be financed through debt.[47]

From this point of view, it is not so much the amount of resources made available in one form or another that is important. Even with the difficulties associated with the complex European architecture, as competence belongs to the Member States, there are no significant gaps. Rather, it lies in the fact that the diversity of the instruments used produces substantial effects, in terms of operational efficiency, timeliness, and effectiveness.

By their very nature, US incentives, linked to tax ID numbers and investment costs, are able to act faster, with a greater degree of predictability, and can lower manufacturing costs in Net-Zero sectors.[48]

Many of the European support programmes for the Net-Zero economy, on the other hand, envisage lengthy authorization procedures and uncertainties related to both recognition and ex-post controls. These programmes often prioritize new technologies over the massive expansion of industrial production.

The European Commission is well aware of this, especially when, while imposing compliance with European standards, it decides to introduce more flexibility in State aid rules and the use of tax credits.

[47] For further discussion, see J. Jansen, P. Jäger and N. Redeker, 'For Climate, Profits, or Resilience? Why, Where and How the EU Should Respond to the Inflation Reduction Act' *Hertie School, Jacques Delors Centre*, available at https://www.delorscentre.eu/en/publications/ira-europe-response.

[48] For an in-depth study on US taxation, see G. Iannaccone and L. Perin, *Stati Uniti d'America: diritto e fiscalità d'impresa* (Milano: Ipsoa, 2nd ed, 2024).

It is clear that a strong European industrial policy responds to the Commission's interests to have new policy instruments and to increasingly catalyse decisions at the European level.[49]

In this emergency context, therefore, the Commission has seen its powers vis-à-vis national governments strengthened, both in terms of economic and fiscal governance. This shift has occurred despite numerous calls for prioritizing competition and the competitiveness of the single market as a lever to 'make' and 'finance' the ecological transition, as outlined in the European Green Deal Industrial Plan.[50]

In conclusion, while fiscal leverage is certainly a necessary building block towards the goal of climate neutrality, from a purely economic point of view, international cooperation remains the first best response to climate change.

Fiscal leverage complements legal systems to promote sustainable development models and seek solutions to environmental damage, with growing awareness of the importance of taking a unified approach to issues that transcend the boundaries of individual jurisdictions.

The national dimension of environmental taxation may prove to be inadequate for a variety of reasons, but above all because of the gravity of the climate crisis, which makes it urgent to adopt a cohesive, global approach to combating global warming.[51]

Environmental taxation, as a pillar of a new taxation system, can act on two fronts: a 'negative' one by taxing the causes of waste and pollution,[52]

[49] The ecological transition is becoming increasingly influential in the European legal context, challenging the traditional balance between economic needs and social values that underpinned the creation of the single market. In this regard, as highlighted in the European Commission's document, 'Towards a Sustainable Europe by 2030', dated 30 January 2019, in order to bring about a significant change, 'a comprehensive approach' is needed that takes into account the 'interrelationships between the various challenges and opportunities related to sustainability' and encourages 'coherence between the different areas, sectors and levels of intervention in the decision-making process'.

[50] On competition, see S. Marino, 'La valorizzazione dello sviluppo sostenibile nella politica di concorrenza dell'Unione Europea' *Il diritto dell'Unione europea*, 3/4, 641-670 (2022).

[51] In this regard, see F. Acerbis and M. Lio, 'La fiscalità fattore di sostenibilità ESG: Good Tax Governance e ruolo delle funzioni fiscali delle imprese' *Il fisco*, XII, 1155-1163 (2023).

[52] In order to regulate ecological taxes, it is essential to consider the so-called environmental costs generated by human activities that exploit natural resources. The difficulty in economically evaluating the use and exploitation of these resources often leads to considering these costs as externalities. Those who use natural resources cause environmental damage without bearing the costs, which instead fall on the community as 'social costs'. Therefore, environmental protection and market equilibrium could be achieved through regulatory instruments that attribute social environmental costs (negative externalities) to those who benefit from them. On pollution as an externality and taxation on the polluter, see R. Perrone Capano, 'L'imposizione e l'ambiente', in A. Amatucci ed, *Trattato di diritto tributario* (Padova: Cedam, 1994), I, 449-514.

and a 'positive' one by granting tax breaks to encourage product and process innovation in favour of sustainable development.

V. Conclusions

The role of environmental taxation is essential in achieving the Sustainable Development Goals (SDGs) and combating climate change.

Indeed, tax revenues are a key resource for governments and can be used not only to finance public expenditure but also to promote environmental sustainability. When taxation is oriented to environmental protection, it becomes a tool to safeguard the common good, balancing the rights of the individual with the needs of nature. This approach is reflected in the integration of the concept of the environment that emerges from numerous international regulatory sources, making it necessary to rethink tax legislation to ensure adequate resources for sustainability.

Sustainability therefore guides public policies and individual behaviour also in terms of solidarity,[53] calling for a new vision of taxation, which not only aims at raising revenue, but incentivizes ecologically virtuous behaviour, reducing negative externalities. The transition from linear taxation, which focuses exclusively on revenue collection, to circular taxation, which promotes recycling and limits unproductive public spending, represents a significant cultural shift. This new economic paradigm redefines waste as a resource.

The main challenge is to strike a balance between promoting effective tax policies and managing their implications for the market and citizens.

In this context, comparing the strategies adopted by the European Union and the United States reveals distinct but converging approaches that reflect their respective specificities and priorities.

The European Union's strategy, through the Green Deal and environmental taxation policies, is to harmonize policies among Member States, promoting a circular economy and incentivizing sustainable behaviours that can help reduce pollution by shifting the tax burden from production activities to emissions and the consumption of limited resources.[54]

However, the heterogeneity of environmental tax policies across European countries and the lack of a uniform regulatory framework limit and hinder the effectiveness of such measures.

[53] E. Caterini, 'Sustainability and Civil Law' *The Italian Law Journal*, 4, 2, 289-314 (2018).

[54] For an analysis of the EU tax strategy, see A.F. Uricchio, 'Le prospettive di riforma della fiscalità ambientale in ambito UE nell'ottica della transizione ecologica e della fiscalità circolare' *Rivista di diritto tributario internazionale*, I, 15-36 (2022).

The US, on the other hand, with the Inflation Reduction Act (IRA), adopted an approach combining tax incentives for green technologies with protectionist measures, raising concerns in Europe about potential market distortions and unfair competition. The IRA, while not exclusively focused on the environment, has had a significant impact on green energy production and the technology industry, stimulating an ambitious green transition agenda.

The European Union's response to these measures, through the Green Deal Industrial Plan, demonstrates its willingness to maintain sustainable competitiveness and to stimulate green industrial production within the single market.[55]

In this context, international cooperation emerges as an indispensable element, and environmental taxation must be integrated into a global strategy that unites the initiatives and policies of various states.

The very Tax for SDGs initiative, which exceeded initial expectations, underlines the global recognition of the impact of environmental taxation, which is indicative of a shift in thinking towards the adoption of financial mechanisms, such as taxation, that need to be shaped more carefully to better serve the interests of people and the planet.

It is essential that fiscal policies are supported by a collective commitment to a fair and inclusive transition.

Amid multiple crises (socio-economic, health and environmental), applying a human-rights-based approach to government policies involves protecting the environment as a common good, prioritizing respect for and protection of the fundamental human rights recognized by international conventions.

The UNDP, committed to supporting governments in assessing the synergies between tax and budget in the context of a global fiscal policy for the SDGs, demonstrates the growing collective willingness of many developing countries to systematically align capital with sustainable development.

Climate change is a global challenge that requires global responses,[56] and environmental taxation must be part of a broader strategy that promotes innovation, sustainability, and social equity. Only through

[55] On this topic, see C. Scheinert, 'EU's Response to the US Inflation Reduction Act (IRA)' *European Parliament*, available at https://www.europarl.europa.eu/thinktank/en/document/IPOL_IDA(2023)740087; P. Lenain, 'Inflation Reduction Act vs. Green Deal: Transatlantic Divergence on the Energy Transition' *Council on Economic Policies (CEP)*, available at https://www.cepweb.org/inflation-reduction-act-vs-green-deal-transatlantic-divergences-on-the-energy-transition/.

[56] For an overview of the topic, see S. Manzocchi and F. Saraceno, 'Il nuovo atlante. Come gli shock globali stanno cambiando l'economia' *Rivista di politica economica*, II, 5-10 (2022).

shared and coordinated effort will it be possible to achieve the climate neutrality goals and ensure a sustainable future for generations to come.

In conclusion, although environmental fiscal measures can provide important levers to steer economic and behavioural choices, it is international cooperation and the adoption of a systemic approach that will ultimately ensure success in the fight against climate change.

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