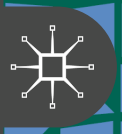

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Bridging Governance, Public Support, Innovation, and Transparency

A Combined Approach to Sustainable Development in Europe

Edited by
Bodo E. Steiner
Inna Makarenko

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CHAPTER 1

Introduction

Bodo E. Steiner

He who saves his country does not violate any law. (Emperor Napoleon Bonaparte & 47th President of the United States, February 2025)

The problem of the selection of the leaders is closely bound up with the wide problem of selection according to the opinions held, or rather according to the readiness with which a person conforms to an ever changing set of doctrines. And this leads us to one of the most characteristic moral features of totalitarianism: its relation to, and its effect on, all the virtues falling under the general heading of truthfulness. (Hayek, 1944, p. 152)

Abstract Truthfulness, transparency, accountability, and efficacy of the institutional frames shaped by political leaders within which private and public decision-making takes place on sustainability matters are central tenets of *sustainability governance*. To become "good governance", governance needs to support effective public administration and functioning democracy yet has its limitations in the development.

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Truthfulness, transparency, accountability, and efficacy of the institutional frames shaped by political leaders within which private and public decision-making takes place on sustainability matters are central tenets of *sustainability governance*. To become "good governance," governance needs to support effective public administration and functioning democracy yet has its limitations in the development discourse when we see good governance as a precondition to development, as it may lead to overloading the development agenda (Grindle, 2010) with conflicting sustainability governance goals. It is in this setting that we understand *sustainable development governance* in this book.

This book is the result of *Willkür*, displacement, and the conviction that independent scientific research on sustainability governance matters to all of us in Europe and beyond.

The Ukraine-Russia war since 2022 could be considered a function of *Willkür* of a single person in Moscow. The resulting displacement and refugee status of many Ukrainian researchers, represented in this book by all contributors from Ukraine, led to the creation of a dedicated fellowship scheme—MSCA4Ukraine—by the Alexander von Humboldt Foundation in Germany. Thanks to this funding scheme, the contributors met, and the idea arose for collaborating on this book.

In an era marked by recent global governance challenges and polycrisis (Lawrence et al., 2024)—from Covid-19 to the Ukraine-Russia war, to the 47th Presidency of the United States—the pursuit of Sustainable Development Goals (SDGs) has been facing and continues to face threats and opportunities since their inception in 2015. The costs of and threats to inaction for pursuing these SDGs have been extensively documented elsewhere, while the Club of Rome (Weizsäcker & Wijkman, 2017) has reminded us that a renewed scientifically based "enlightenment" is needed with a longer-term perspective, in spite of future challenges and crises:

> "Modern societies have acquired an amount of economic wealth, scientific knowledge, and technological capacities that should enable to fund and implement most of the transformations that The Limits to Growth saw as paramount in terms of creating a sustainable world. … The time has come, we believe, for a new Enlightenment or for otherwise overturning current habits of thought and action that only consider the short term.
> The Executive Committee of the Club of Rome".
> (Preface to: Von Weizsäcker & Wijkman, 2017).

Faced with the unacceptable costs of inaction, one key challenge for anyone seeking to support and implement the SDGs rests with trade-offs that we must make among those underlying sustainability objectives. Some trade-offs are so fundamental and obvious for those with Humboldtian ideals and ideas that they do not need discussion: Karl Popper famously suggested in his book "The Open Society and Its Enemies" (1945) that "*freedom matters more than equality*". Other trade-offs are harder to make and justify, and naturally depend on societal preferences, moral values and other factors. It is in this setting that the present book *Bridging Governance, Public Support, Innovation, and Transparency (Navigating Sustainable Development Governance in Times of Polycrisis: Studies from the EU and Ukraine*) aims to make a small contribution towards advancing sustainability development governance.

Although each chapter can be read individually, the following chapter sequence invites the reader to start from a focus on societal preferences for **environmental sustainability**, to then continue to a perspective on **social sustainability** through a study of a human rights-based approach in local self-government in Europe. The third, fourth, and fifth chapters put a spotlight on individual **businesses** in their respective environment, starting with a focus on transparency in the banking sector (Chapter 4) and continuing with a focus on how private and public initiatives can support innovative entrepreneurship. The final chapter broadens the focus on businesses in their triple-bottom-line challenge by considering them in the context of the "new normal," facing geopolitical risks associated with poly-crisis.

The Chapter 2 ("*Social Preferences Towards the Environment: Assessing and Quantifying Public Support for Sustainable Development*" by Oksana Liashenko) provides a global cross-country analysis and framework to assess how country-level **social preferences for the environment** align with progress on SDGs. While identifying differences in country-level environmental activism, it provides a nuanced picture of how citizens balance environmental concerns with economic and policy considerations, providing valuable insights into trade-offs between environmental advocacy and economic pressures. Further, through its focus on organisational trust and associational membership, it also addresses the role of social capital (Putnam, 2000) in the context of environmental attitudes and sustainability governance. The chapter provides valuable insights for designing targeted policy interventions for accelerating progress towards sustainable development objectives. It promotes better *sustainability*

governance, pointing to how stakeholders in the SDG debate could anticipate potential societal resistance to SDG initiatives and develop targeted policy and communication interventions that promote societal dialogue in a Humboldtian spirit.

The following two chapters (3 and 4) address **human rights compliance** and **transparency**, thereby bringing to life further dimensions of sustainable development governance, and the role of institutional underpinnings of effective economic and political management as core of good governance (Grindle, 2010).

The Chapter 3 ("*Empowering Local Authorities for Sustainable Development: The Council of Europe's Role in Promoting Human Rights-Based Approaches*" by Natalia Mishyna) provides a novel comprehensive qualitative analysis of Council of Europe initiatives and policies, focusing on the role of its main bodies. The Council of Europe is the oldest intergovernmental organisation in Europe outside of the European Union that brings together the largest number of European countries with 46 Member States (EIU, 2023). It promotes local governments as pivotal for implementing the 2030 Agenda for Sustainable Development and for promoting full enjoyment of human rights by all citizens by strengthening local democracy (Helgesen, 2024). The chapter identifies strategies for integrating sustainable development efforts into a **human rights-based approach**. By assessing the intersection between local self-government, human rights, and sustainable development, it unfolds challenges and opportunities for applying the human rights-based approach in local self-government in Europe. Through policy-recommendations on more inclusive and effective sustainable development efforts in the context of local and regional authorities, the chapter provides specific insights into means for creating more resilient and inclusive communities while advancing key SDGs.

The Chapter 4 ("*Sustainability Transparency in the Banking Sector*" by Inna Makarenko and Bodo Steiner) provides a hybrid literature review approach to clarify the meaning and relevance of **transparency** dimensions as part of **sustainable governance of banks**. The chapter gains additional relevance in the context of the Ukraine, since the European Central Bank prepared the Financial Stability Review (FSR) in May 2022, against the backdrop of the invasion of Ukraine, while aiming to assess financial stability vulnerabilities with a focus on risks associated with crypto-assets (ECB, 2023). The chapter explores the scientific landscape on transparency and washing dimensions applied to the banking sector

as a tool for addressing the SDG achievement gaps. This includes a review of theoretical and conceptual frameworks and a description of current research gaps. The chapter emphasises the importance of transparent and accountable information disclosure in the EU banking sector to maintain social trust, legitimacy, and good governance. Since financial sector transparency improves governance through reducing information asymmetries (Vishwanath & Kaufmann, 2001) the increasing rise of crypto-asset markets with potentially further losses in trading and pricing transparency may pose additional sustainable development governance risks in the future. Due to the practical focus of this chapter on different washing dimensions and disclosure issues from the perspective of Environmental, Social, and Governance (ESG) criteria, the chapter is deemed of interest to banking regulators, private sustainability standard-setters, and bank managers. Since the chapter also provides insights into legitimacy theory and stakeholder theory in the above context, and on the practical steps to conducting a hybrid literature review, we hope the usefulness of the chapter extends to young scholars.

The Chapter 5 ("*EU Insights on Innovative Entrepreneurship Ecosystems Following Sustainable Development Goals*" by Oksana Khymych) explores the European Union's approach to **innovative entrepreneurship** within the framework of sustainable development, focusing on best practices, policy mechanisms, and support structures while highlighting transferable lessons from the Dutch model supporting innovative entrepreneurship. It thus embraces *governance* with its focus on best sustainable practices, policy goals, mechanisms, and institutional support structures for entrepreneurship. It does so by applying the SPAR (Situation, Problem, Action, Result) methodology to assess the role of public–private partnerships, funding initiatives, and regulatory frameworks in supporting sustainable entrepreneurship. The chapter concludes with transferable lessons from developed to developing economies, pointing to the scope of initiatives supporting coopetition (Brandenburger & Nalebuff, 1996; Kostis et al., 2024) and thereby also advancing our insights on further applicability of institutional and resource dependence theories (Xing et al., 2024). The chapter highlights the value of SDG-accelerating government interventions that go beyond focused financial incentives, including international collaborations and knowledge-sharing platforms to enhance an innovation-driven, resilient, and competitive entrepreneurial landscape while encouraging ecosystem-based cooperation.

The final and Chapter 6 ("*Barriers to Progress: How Geopolitical Risks Affect the EU's SDG Agenda*" by Ruslana Kuzina and Bodo Steiner) broadens the perspective on sustainable development governance by exploring the challenges that **geopolitical risks** pose for achieving SDGs with a focus on corporate sustainability efforts. Given its corporate business focus, it is structured according to the Triple Bottom Line approach, distinguishing economic, environmental, and social sustainability. Considering the reality of poly-crisis around us, it challenges the apparent prevailing peace-grounded perspective of the United Nations that "*in a global village where we live at present, it is in everyone's interest that any society ideally meets the above-mentioned conditions. … The objective of Good Governance in Sustainable Development (GGSD) Program is to assist societies to develop on effective government within a democratic system, and to implement sustainable development principles through global partnership*" (UN, 2025). The chapter shows that in a world where global partnerships and the "global village" become increasingly fragmented, social sustainability suffers from labour displacement, declining labour protections, and weakened community engagement. Declining investment levels and increasing market volatility are identified alongside resource depletion, environmental pollution, and weakened enforcement of environmental standards as key challenges for achieving corporate sustainability efforts. The chapter calls for a reassessment of corporate governance risk assessment models in the context of an increasingly complex and dynamic business environment shaped by geopolitical risks. Together with greater collaboration among businesses, policymakers, and global institutions, such reassessment promises greater corporate resilience and a more effective achievement of SDGs despite existing barriers to progress.

Through the above chapters, the book addresses several sustainable development governance challenges while keeping its focus on SDGs throughout. It highlights enduring topics that are currently receiving renewed interest as well as challenges to their relevance, such as environmental and social sustainability, entrepreneurship as accelerator for the desired sustainability transition, and the role of inclusive economic and political institutions at local and national levels (Acemoglu & Robinson, 2012) also in the context of geopolitical risks. In doing so, the book is offering a multidisciplinary perspective that bridges theoretical insights with practical applications. By providing actionable policy recommendations, we hope the book equips policymakers, scholars, and practitioners (businesses, local government representatives, civil society actors) with

insights and tools needed to navigate and address sustainability governance challenges more effectively.

"*Bridging Governance, Public Support, Innovation, and Transparency" (Navigating Sustainable Development Governance in Times of Polycrisis: Studies from the EU and Ukraine*) is thus an essential read for students, established scholars, practitioners, and policymakers seeking strategic insights for sustainable business and governance in the European Union, Ukraine, and beyond. Given its breadth of focus on social, environmental, and economic sustainability dimensions and connecting them to broader institutional and governance challenges in a world of renewed geo-political risks, we hope that the book retains its relevance for the years to come.

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CHAPTER 2

Social Preferences Towards the Environment: Assessing and Quantifying Public Support for Sustainable Development

Oksana Liashenko

Abstract This chapter establishes a framework for assessing and quantifying how country-level social preferences align with progress on Sustainable Development Goals (SDGs), with a focus on environmental preferences and their relationship to sustainable development progress. Using data from the World Values Survey (WVS), we explore how social preferences relate to achieving SDGs, particularly within the Planet dimension of the 5Ps framework. Through multivariate statistical analysis of WVS and SDG indicators (Canonical Correlation Analysis), we examine the diversity of public attitudes towards environmental sustainability across all countries covered by Wave-7 of WVS, providing insights into the role of public attitudes in either advancing or obstructing specific SDG targets. While we identify canonical correlations as latent constructs,

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this study does not assert causal relationships between public attitudes and SDG outcomes. Key findings reveal global and regional trends that offer comparative insights into environmental preferences among nations, highlighting patterns and variations in support for sustainability initiatives. The differing roles of social groups emphasise the need for tailored policy interventions. Negative correlations between certain social groups and SDGs suggest that achieving environmental goals requires balancing conflicting priorities and encouraging cross-group dialogue. By aligning public attitudes with SDG priorities, this framework provides tools for designing interventions that enhance public engagement and accelerate progress towards sustainable development objectives. The proposed framework offers a data-driven basis for sustainability governance, allowing decision-makers to anticipate potential societal resistance to SDG initiatives and develop policies that promote cross-group dialogue and collaboration.

Keywords Social preferences · Public attitudes · Sustainable development · Environment · Analytical framework · Correlation analysis

1 Introduction

Achieving Sustainable Development Goals (SDGs) requires more from countries and governments than institutional commitments, as it depends on active public engagement and alignment of societal values with global sustainability objectives. Social preferences reflect the underlying social norms, values, and attitudes that influence individual behaviour and policy perceptions in social and economic contexts (Akerlof & Kranton, 2010; Tasch & Houser, 2018). These preferences encompass collective mechanisms to promote societal well-being through principles of efficiency and equity functions (Alesina et al., 2004; Treibich, 2014). Social preferences, proxied by individuals' collective attitudes and priorities, are critical in shaping the trajectory of countries' sustainable development (Caferra & Falcone, 2022; Liashenko & Dluhopolskyi, 2024). These preferences influence public support for policies, resource allocation, policies implementation (Liashenko & Dluhopolskyi, 2024; Steg et al., 2014; Thaler, 2016), all of which contribute to the success—or hindrance—of SDG implementation. Among the SDGs, the "Planet" dimension,

encompassing environmental goals such as climate action (SDG 13), life on land (SDG 15), and sustainable consumption (SDG 12), is mainly dependent on public attitudes. Understanding and quantifying these preferences provide vital insights into how societal values, which are the core of social preferences, align with global environmental priorities.

Public attitudes towards sustainability are inherently complex and shaped by various cultural, economic, and political contexts. For instance, Inglehart (Inglehart, 1997) highlighted the influence of post-materialist values in fostering environmental consciousness, particularly in affluent societies. Similarly, Stern and Dietz (Stern & Dietz, 1994) proposed the "value-belief-norm" theory, emphasising the connection between personal values and pro-environmental behaviour. Despite this body of work, there remains a significant gap in linking these theoretical insights to the empirical assessment of how social preferences affect progress towards the SDGs, especially on a global scale. This chapter aims to bridge that gap by utilising data from the World Values Survey (WVS), a leading cross-country database of public attitudes and values (Inglehart & Welzel, 2005).

The importance of understanding public opinion in the context of sustainability cannot be overstated. Social preferences shape the political will required for implementing sustainability policies, as evidenced by studies such as those by Steg and Vlek (Steg & Vlek, 2009; Steg et al., 2021), which underscore the influence of public attitudes on environmental governance. At the same time, the interdependencies among SDGs mean that preferences in one domain, such as climate action, can ripple through others, affecting broader progress in areas like poverty alleviation and public health (United Nations, 2020). Thus, this chapter examines environmental attitudes and their cascading effects on the broader SDG framework.

This chapter adopts a structured approach to analysing and quantifying social preferences. Using the WVS dataset, it investigates how public attitudes towards environmental issues vary across countries, regions, and cultural contexts. It identifies clusters of preferences within populations, revealing critical heterogeneity in public opinion and its implications for sustainability outcomes. Furthermore, the study evaluates the extent to which these preferences facilitate or hinder progress towards environmental SDGs, providing a comprehensive analysis of the role of societal values in shaping global development trajectories.

This chapter provides policymakers, researchers, and practitioners with a framework for engaging public opinion to advance the SDG agenda.

2 Theoretical Framework

Pursuing sustainable development requires a holistic understanding of the underlying factors that shape public attitudes and their relationship to global sustainability objectives. This chapter is grounded in the theoretical frameworks of social preferences, environmental values, and the interconnectedness of the SDGs. The analysis is organised around two key concepts: (1) the "5Ps" framework, and (2) the role of public opinion in advancing the SDG agenda.

The 5Ps framework, introduced in the United Nations' 2030 Agenda for Sustainable Development (United Nations, 2015), emphasises sustainable development's integrated and indivisible nature. It highlights five critical dimensions—people, Planet, Prosperity, Peace, and Partnership—through which global progress can be achieved. The "Planet" dimension is particularly significant, as it underpins environmental sustainability by addressing issues such as climate change, biodiversity loss, and the sustainable management of natural resources (United Nations, 2020).

Scholars have emphasised the importance of public engagement in the "Planet" dimension since societal support is crucial for implementing policies aimed at achieving goals such as SDG 13 (Climate Action), SDG 15 (Life on Land), and SDG 12 (Responsible Consumption and Production) (Biermann et al., 2022). Furthermore, the interconnected nature of the 5Ps framework (Nilsson et al., 2018) means that progress in the "Planet" dimension often influences other areas, such as poverty alleviation and public health, making it essential to align public attitudes with environmental priorities (Nilsson et al., 2018).

At the same time, social preferences represent the collective attitudes, values, and priorities that influence individual and group behaviours and shape how societies address environmental challenges. Recent research has emphasised the dynamic nature of these preferences, often influenced by cultural, economic, and institutional factors (Otto et al., 2020). For instance, environmental preferences have been shown to vary significantly across countries and regions, reflecting differences in economic development, education levels, and exposure to climate risks (Gerten et al., 2021).

Numerous studies on bargaining, cooperation as well as global surveys reveal the crucial role of altruism, fairness, and inequality aversion in human behaviour. Prominent models, such as the inequality aversion model (Fehr & Schmidt, 1999; Hong et al., 2015; Okun, 2015; Reina et al., 2023; Romero-Martín et al., 2024), the equity-reciprocity-competition model (Bolton & Ockenfels, 2000), and the reciprocity model (Charness & Rabin, 2002), highlight how social preferences shape decisions by incorporating concerns for equity and fairness. Scholars argue that understanding how individuals balance equality and efficiency is central to contemporary democratic governance (Hong et al., 2015).

Research on social preferences shows that individuals exhibit diverse preferences when acting as impartial social planners. Some studies reveal significant heterogeneity in attitudes towards trade-offs between equality and efficiency (Traub et al., 2009). Social preferences are inherently heterogeneous, varying with individual identities, societal conditions, and cultural norms (Okun, 2015).

This chapter's theoretical foundation for analysing social preferences draws on the established framework of the "value-belief-norm" theory (Stern & Dietz, 1994) and relates to recent developments in environmental psychology, such as the role of personal norms and identity in shaping pro-environmental behaviour (Bouman et al., 2018; Steg & Vlek, 2009; Steg et al., 2014), as well as advancements in behavioural economics, including the influence of social preferences and loss aversion on sustainable decision-making (Thaler, 2016). These theories emphasise the significance of intrinsic values, such as altruism and biospheric concerns, in driving pro-environmental behaviours (Bouman et al., 2018; Steg et al., 2021). Furthermore, studies indicate that social preferences are essential for building public trust and fostering cooperation in tackling global environmental challenges (Scholz et al., 2020).

One of the SDGs' defining features is their interconnected nature, whereby progress in one area often influences outcomes in others. For example, achieving sustainable consumption and production (SDG 12) can contribute to climate mitigation efforts (SDG 13) while also enhancing biodiversity protection (SDG 15) (Liashenko & Demianiuk, 2024; Nilsson et al., 2018; Rockström et al., 2021). Conversely, a lack of public support for environmental policies can create barriers to achieving broader sustainability objectives, underscoring the need to align social preferences with the SDG agenda (Hel & Biermann, 2017).

Public opinion plays a critical role in this interconnected framework. Recent studies demonstrate that societal values often determine the political feasibility of sustainability initiatives, particularly in democratic contexts where public support is a prerequisite for policy implementation (Dryzek et al., 2019). For example, resistance to climate policies in certain regions has been attributed to conflicting social preferences, highlighting the importance of understanding and addressing the heterogeneity of public attitudes (Markowitz & Guckian, 2018).

By situating this analysis within the broader theoretical framework of the 5Ps, this chapter aims to explore how social preferences for environmental sustainability can be quantified and linked to SDG progress.

3 Methodology

We adopt a mixed-methods approach to analyse and quantify social preferences related to environmental sustainability. The methodology links public attitudes, as measured through the World Values Survey (WVS), to Sustainable Development Goal (SDG) progress indicators, thereby assessing how social preferences relate to progress across the interconnected SDG framework.

The WVS offers extensive data on public attitudes, values, and beliefs, making it one of the most robust tools for cross-country comparison analysis (Inglehart et al., 2020). For this research, the focus is on responses to three questions that reflect environmental preferences, such as:

- **Q79**: Confidence in the Environmental Protection Movement—This question asks about the confidence level in environmental organisations, measured as a great deal, quite a lot, not very much, or none at all.
- **Q111**: Protecting the environment vs. economic growth—Respondents are asked to choose between prioritising environmental protection, even at the cost of slower economic growth and some job losses, or prioritising economic growth, even if it damages the environment.
- **Q99**: Membership in Environmental Organisations—This question asks about active, inactive, or non-membership in environmental organisations, indirectly reflecting support for sustainability practices.

Linking Social Preferences to SDG Progress Indicators

Progress in each SDG is measured using the official indicators established by the United Nations, widely recognised as benchmarks for tracking sustainable development outcomes (United Nations, 2015). This study uses multiple indicators associated with each SDG to evaluate the impact of public attitudes.

Each country's progress on these indicators is extracted from publicly available data sources, including the UN SDG database.[1] By linking WVS data to these indicators, the study identifies how public preferences drive—or hinder—progress in specific SDGs.

Analytical Framework

To systematically analyse the relationship between social preferences and SDG outcomes, we employ a structured three-step framework:

1. Classification of Social Preferences: (a) using WVS data, co-occurrences of particular response variates to multiple questions are calculated; (b) individuals are grouped based on shared environmental preferences.
2. The share of each group within a country's WVS respondents is calculated to reflect the homogeneity of social preferences within the particular group.
3. Groups' proportions are linked to the country's progress on SDG progress indicators.

CCA is a multivariate statistical technique used to identify and quantify the relationships between two variables. Unlike simple correlation or regression methods, CCA allows for the simultaneous examination of multiple interdependent relationships, making it particularly useful for analysing complex social and policy interactions (Bartholomew, 2010; Liashenko & Demianiuk, 2024; Uurtio et al., 2017). CCA is a robust statistical method that constructs latent variables that cannot be directly observed or measured using traditional techniques. In contrast to factor or principal component analysis, which derives latent constructs from a single dataset, CCA identifies latent relationships between two sets of

[1] https://dashboards.sdgindex.org/downloads.

observed variables. It is especially suited for studying complex interactions (Bartholomew, 2010; Liu et al., 2023), such as those between social preference groups and SDG progress in this study, which we hypothesise to be complex associations shaping sustainable development outcomes.

In CCA, latent variables—often canonical variates—are constructed by finding the linear combinations of observed variables that maximise the correlation between the two datasets. These canonical variates capture the shared variance between the two domains, effectively revealing hidden dimensions of interaction that would be difficult to detect using more straightforward correlation-based methods. Our study implies that rather than analysing individual SDGs and social groups in isolation, CCA enables us to uncover broader sustainability dimensions that define how public preferences shape (or hinder) progress towards SDG targets.

A key advantage of this approach is its ability to identify latent constructs that do not correspond directly to any single measured variable. For instance, a latent sustainability trade-off dimension may emerge, reflecting an underlying tension between environmental advocacy and economic pragmatism, even though no single survey question or SDG metric explicitly captures this dynamic. These latent structures facilitate an understanding of why certain social groups demonstrate unexpected resistance or support for specific sustainability initiatives, offering deeper insights than direct survey responses or standalone SDG indicators.

By employing CCA to construct latent variables, we provide a comprehensive understanding of the multidimensional nature of sustainability preferences. This allows for the effective segmentation of groups and the development of targeted policy interventions that align with the underlying drivers of social behaviour.

In the context of this study, we apply CCA to explore the associations between social preference groups and progress towards the Sustainable Development Goals (SDGs). This approach is well-suited for our research as it captures the multidimensional nature of sustainability attitudes, revealing both direct and underlying influence patterns. By identifying statistically significant canonical roots, CCA enables us to ascertain which social groups are most aligned with specific SDGs and which exhibit resistance. This provides a more nuanced understanding of public sustainability preferences, helping to differentiate between activist engagement, economic pragmatism, and passive support or scepticism.

The use of CCA in this study contributes to a data-driven framework that policymakers can utilise to design more targeted sustainability

interventions, ensuring that policies align with public opinions that shape sustainability outcomes. While CCA does not fully establish causality, it offers valuable insights into the social factors that influence sustainability outcomes, enabling policies to be more closely aligned with public attitudes and preferences. This methodological approach delivers actionable insights into how social preferences relate to SDG progress, offering a comprehensive framework for aligning public attitudes with sustainability objectives.

4 Global Trends and Comparative Analysis

An analysis of recent studies and public survey data (Table 1) highlights key trends in environmental attitudes that influence progress towards the Sustainable Development Goals (SDGs):

- ***Rising Concern for Climate Change***. Globally, public awareness of climate risks has grown in recent decades, with over 70% of respondents in numerous high- and middle-income countries identifying

Table 1 Frequency table for selected questions

Category	*Count*	*Cumulative count*	*Percent*	*Cumulative percent*
Q79: confidence: the environmental protection movement				
A great deal	12,050	12,050	13.72	13.72
Quite a lot	35,945	47,995	40.93	54.65
Not very much	24,075	72,070	27.41	82.06
None at all	9992	82,062	11.37756	93.44
Missing	5760	87,822	6.55872	100
Q99: active/inactive membership: environmental organisations				
Don't belong	74,620	74,620	84.97	84.97
Inactive member	7319	81,939	8.33	93.30
Active member	4653	86,592	5.3	98.61
Missing	1230	87,822	1.4	100
Q111: protecting environment vs. economic growth				
Protecting environment	47,702	47,702	54.32	54.3
Economy growth and creating jobs	33,650	81,352	38.32	92.6
Other answer	2543	83,895	2.90	95.5
Missing	3927	87,822	4.47	100

climate change as a significant threat (Gerten et al., 2021). This heightened concern has aligned with increased global attention to SDG 13 (Climate Action) and drives demand for stronger climate policies.

- ***Support for Government Intervention***. Substantial public support has existed for governmental policies aimed at environmental protection, especially in Europe, North America, and parts of Asia. Nations with strong public support for environmental regulations show more rapid progress on key indicators, such as renewable energy adoption (related to SDG 7) and reductions in CO2 emissions per capita (related to SDG 13) (Rockström et al., 2021).
- ***Economic-Environmental Trade-offs.*** In low-income countries, economic concerns often precede environmental priorities, reflecting the tension between immediate economic needs and long-term sustainability goals. For example, many respondents in Sub-Saharan Africa have expressed hesitancy towards policies that could slow economic growth, underscoring a significant barrier to achieving SDG 12 (Sustainable Consumption and Production) (Vergès, 2024).

These trends highlight the complexity of aligning public preferences with SDG objectives, particularly in regions where competing priorities pose significant challenges to implementing environmental policies. Furthermore, complexities arise from competing priorities due to the recent reversal in public policy support for SDGs as evidenced from Nilsson et al. (2018).

According to WVS selected questions, the global trend highlights a growing concern for environmental degradation and climate change from 2017 to 2022 (Table 1), as evidenced by the confidence in the environmental protection movement (Q79). Over half of the respondents (54.65%) report significant trust in these organisations, underscoring a general optimism towards their effectiveness. However, despite this confidence, membership in environmental organisations (Q99) remains overwhelmingly passive, with 93.3% of individuals either inactive or not belonging, indicating limited direct involvement in sustainable practices. Interestingly, most respondents (Q111) prioritise environmental protection over economic growth (54.3%), reflecting a willingness to accept potential economic trade-offs for sustainability.

5 Social Preferences Taxonomy Based on Environmental Attitudes

We calculate the frequencies of response coincidences across the three selected survey questions, identifying patterns of social preferences within countries. This approach offers insights into public preferences by categorising respondent groups based on their environmental attitudes and behaviours derived from key WVS survey responses. The frequencies of response co-occurrences identified five distinct social preference groups, whose descriptions are summarised in Table 2.

Calculated shares of these groups within countries are presented in Table 8 (Appendix).

6 Regional Trend

Global data (Table 8, Appendix) analysis highlights notable trends and regional variations in public attitudes towards environmental issues. These insights reveal the dominance of Environmentally Conscious Activists globally, underscoring strong ecological support across most regions. Simultaneously, groups such as Hybrid Pragmatists and Sceptics remain the least represented, reflecting minimal prioritisation of balancing economic and ecological concerns or outright distrust in environmental initiatives.

For instance, Environmentally Conscious Activists (~42–43%) dominate North America. The secondary groups here are Economically Oriented Pragmatists and Passive Environmental Supporters (~20–24%). Intense ecological activism characterises North America, with a limited representation of Sceptics (~5–8%) or Hybrid Pragmatists (5%), signalling a generally pro-environmental mindset with some economic caution.

In Western Europe, there is a balance between Environmentally Conscious Activists (~43%) and Economically Oriented Pragmatists (~22–32%). While environmental activism remains strong, pragmatists play a significant role, reflecting the region's industrial economies and the need to balance ecological priorities with economic stability.

The dominant groups in Eastern Europe (Serbia, Romania, Ukraine, etc.) are Economically Oriented Pragmatists (~33%) and Environmentally Conscious Activists (~19–43%). This region has a higher level of scepticism in prioritising environmental goals vs economic growth (8–14%).

Table 2 Taxonomy of social preferences groups based on environmental attitudes

Trust in environmental organisations	*Priority: environment vs. economy*	*Engagement in environmental organisations*	*Key characteristics*
Environmentally conscious activists			
High	Prioritise environmental protection over economic growth	Active members	Highly engaged in environmental movements, advocate for systemic changes, and actively participate in sustainability initiatives
Economically oriented pragmatists			
Low to Moderate	Prefer economic growth over environmental protection	Non-members	Sceptical of environmental policies, prioritise job security and economic stability, and view environmental issues as less urgent
Passive environmental supporters			
Moderate	Mixed priorities	Inactive members or supporters via donations	Acknowledge the importance of environmental issues but do not actively engage in sustainability practices
Sceptics			
Little to No	Strongly prioritise economic growth	Non-members	Distrust environmental movements and policies, often due to misinformation or perceived conflicts with immediate priorities

(continued)

Table 2 (continued)

Trust in environmental organisations	*Priority: environment vs. economy*	*Engagement in environmental organisations*	*Key characteristics*
Hybrid pragmatists			
High	Seek a balance between environment and economy	Inactive members	Advocate for balanced solutions that integrate sustainability and economic growth, often seeking compromise-driven approaches

Their pragmatism reflects industrial dependencies and economic caution, which leads to a more careful approach to environmental policies.

Asia leads in environmental activism (engagement in environment protection movements and organisations), particularly in Indonesia and China, where ecological awareness is rising. Scepticism in environment prioritisation remains minimal (~6–9%), demonstrating a potential trade-off between economic and environmental sustainability, as Asian consumers may trade off environmental scepticism for economic growth.

Africa's dominant groups include Environmentally Conscious Activists (~27–41%) and Passive Environmental Supporters (~22–29%). As a result, Africa exhibits a dual pattern: active environmentalism in countries like Kenya contrasts with higher passivity in others, such as Ethiopia, potentially reflecting socio-economic challenges and limited access to environmental education.

Environmentally Conscious Activists (~37–43%) dominate in Latin America. Latin America demonstrates moderate to high environmental activism, with lower shares of sceptics (~8–11%), indicating widespread ecological awareness despite passive tendencies in some regions.

Oceania mirrors North America's intense environmental activism, demonstrating the dominance of Environmentally Conscious Activists (~44%), with minimal representation of Sceptics (~8%) and Hybrid Pragmatists (~6%), reflecting an overall pro-sustainability attitude.

Environmental activism as a global trend indicates a strong global prioritisation of ecological concerns, transcending traditional divides

between developed and developing nations in prioritising environment-oriented goals vs economic outcomes.

Economically Oriented Pragmatists consistently represent most regions' second or third largest group, highlighting the ongoing tension between economic growth and sustainability, particularly in Eastern Europe and Latin America.

Passive Environmental Supporters comprise a substantial portion of the population in regions such as Africa, South America, and Asia. This suggests that barriers to active engagement arise from limited resources, awareness, or systemic support for sustainability.

Sceptics towards the relevance of environmental sustainability remain a global minority, with slightly higher proportions in economically challenged regions, such as Eastern Europe and parts of Africa.

The Hybrid Pragmatists group consistently holds the smallest share, indicating a polarised global landscape where most individuals prioritise ecological or economic concerns rather than seeking a balance.

These trends underscore the interplay between regional socioeconomic conditions and public attitudes towards environmental priorities.

7 Canonical Correlation Analysis of Social Preferences and Sustainable Development Goals Progress

This section explores the relationship between environmental social preference groups and progress on Sustainable Development Goals (SDGs) through canonical correlation analysis (CCA with TIBCO® STATISTICA 14.2.0) on societal attitudes and environmental objectives, highlighting key areas of alignment and divergence. The study is based on data from 54 countries examining six SDG indicators and five social preference groups.

The analysis (Table 3) reveals that the Sustainable Development Goals (SDGs) set (left set) explains 80.71% of its variance, while the social groups set (right set) accounts for 99.99% of its variance. Regarding redundancy, social groups explain 19.36% of the variance in SDGs, whereas SDGs account for 28.65% in social groups. These results suggest a meaningful but partial overlap in the explanatory power of the two sets, highlighting specific areas where social preferences correlate with SDG progress.

Table 3 Canonical analysis summary

	Left Set	*Right Set*
No. of variables	6	5
Variance extracted	80.71%	99.99%
Total redundancy	19.36%	28.65%
Variables: 1	Goal 6	Environmentally Conscious Activists
2	Goal 7	Economically Oriented Pragmatists
3	Goal 12	Passive Environmental Supporters
4	Goal 13	Sceptics
5	Goal 14	Hybrid Pragmatists
6	Goal 15	

The first canonical root (Table 4) demonstrates significant relationship between social preferences and SDG progress ($Rc = 0.69$, $\chi^2(50) = 42.7$, $p = 0.04$). Subsequent canonical roots exhibit weaker correlations and lack statistical significance, indicating that the first canonical function captures the primary relationship (Table 4).

Table 5 presents the root-removed correlations between different environmental attitudes groups and selected Sustainable Development Goals (SDGs), illustrating variations in their alignment with environmental and economic priorities. The "Root removed correlations" represent residual correlations between groups and Sustainable Development Goals (SDGs) after removing the influence of latent factors. These values do not reflect simple correlations but rather the adjusted relationships that remain once the overarching structural effects have been accounted for (Raudenbush & Bryk, 2002; Uurtio et al., 2017). This approach helps isolate

Table 4 Chi-square tests with successive roots removed

Root removed	*Canonical R*	*Canonical R-sqr*	*Chi-sqr*	*df*	*p*	*Lambda prime*
0	0.69	0.47	42.7	30	0.04	0.21
1	0.65	0.43	25.5	20	0.18	0.39
2	0.47	0.22	10.6	12	0.57	0.68
3	0.28	0.08	3.7	6	0.72	0.87
4	0.23	0.05	1.4	2	0.49	0.95

Table 5 Correlations, left set with right set

Root removed	*Environmentally conscious activists*	*Economically oriented pragmatists*	*Passive environmental supporters*	*Sceptics*	*Hybrid pragmatists*
Goal 6	0.15	−0.14	0.05	−0.28	−0.24
Goal 7	0.10	−0.23	0.22	−0.24	−0.16
Goal 12	0.15	−0.20	−0.16	−0.01	−0.03
Goal 13	−0.04	−0.17	0.10	0.18	0.07
Goal 14	0.04	−0.09	0.08	−0.13	0.02
Goal 15	−0.39	0.36	0.34	0.25	0.18

the unique associations between each group and specific SDGs, revealing patterns not driven by broader underlying trends in the data.

The results reveal that Environmentally Conscious Activists show strong positive residual associations with SDGs 6 and 12, indicating sustained commitment independent of broader structural influences. In contrast, Economically Oriented Pragmatists demonstrate negative residual correlations with these goals, reflecting resistance to policies perceived as economically restrictive. Meanwhile, Passive Environmental Supporters and Hybrid Pragmatists display weaker but notable deviations, suggesting their views are shaped more by situational factors than overarching trends. Since latent constructs have been removed, these residual correlations capture group-specific preferences rather than systemic patterns. This distinction highlights the importance of tailored policy responses. Some sustainability attitudes are rooted in enduring values, while others are more malleable and context-dependent, offering more significant potential for strategic engagement.

Table 6 presents the factor structure of Sustainable Development Goals (SDGs) and stakeholder groups, illustrating their alignment with five latent dimensions (Roots 1–5). However, as indicated in Table 4, only the first canonical root is statistically significant, which captures the primary relationship between social preferences and SDG progress. In contrast, subsequent roots exhibit weaker, non-significant correlations.

In the left set, Goal 15 (Life on Land) strongly loads Root 1, indicating that biodiversity conservation plays a central role in shaping sustainability perceptions. Conversely, Goal 7 (Affordable and Clean Energy) and Goal 6 (Clean Water and Sanitation) exhibit negative loadings on

Table 6 Factors structures

Root variable	*Root 1*	*Root 2*	*Root 3*	*Root 4*	*Root 5*
Left set					
Goal 6	−0.30	−0.41	0.30	−0.49	−0.49
Goal 7	−0.46	−0.69	0.21	0.20	−0.41
Goal 12	−0.12	0.15	−0.56	−0.03	0.50
Goal 13	0.18	−0.21	−0.62	0.03	0.50
Goal 14	−0.28	−0.37	0.59	0.08	0.57
Goal 15	0.55	−0.23	0.55	0.05	−0.45
Right set					
Environmentally conscious activists	−0.75	0.15	−0.24	−0.60	0.08
Economically oriented pragmatists	0.6	0.33	0.52	0.33	−0.40
Passive environmental supporters	0.46	−0.68	0.11	0.51	−0.23
Sceptics	0.80	−0.05	−0.13	0.49	0.32
hybrid pragmatists	0.50	0.04	0.15	0.70	0.49

Root 1, suggesting potential trade-offs between economic and environmental priorities. In the right set, Environmentally Conscious Activists load strongly and negatively on Root 1, reinforcing their commitment to sustainability, while Economically Oriented Pragmatists show a strong positive loading, indicating a more market-driven perspective. Sceptics also exhibit a high positive loading on Root 1, aligning them more closely with economic pragmatists regarding sustainability preferences.

Since only the first root is statistically significant, it serves as the dominant explanatory factor, meaning that while multiple dimensions of sustainability attitudes exist, the primary differentiation lies in the contrast between environmental commitment and economic pragmatism. This finding underscores the need for policies that bridge these perspectives to foster more inclusive and widely accepted sustainability strategies.

Table 7 presents the canonical weights for the left (SDGs) and right (stakeholder groups) sets, further refining the interpretation of factor contributions. As the only statistically significant function, the first root shows the most substantial differentiation, particularly for Goal 12 (Responsible Consumption and Production) and Goal 13 (Climate Action), highlighting their key roles in shaping sustainability preferences among different societal groups.

Table 7 Canonical weights

Root variable	*Root 1*	*Root 2*	*Root 3*	*Root 4*	*Root 5*
Left set					
Goal 6	−0.11	−0.37	−0.012	−1.63	−0.1
Goal 7	−0.72	−0.45	−0.285	1.07	−0.65
Goal 12	−1.57	0.93	−0.073	−0.29	−1.08
Goal 13	1.30	−1.43	−0.686	−0.32	0.88
Goal 14	−0.12	−0.24	0.705	−0.13	0.83
Goal 15	0.33	−0.03	0.325	−0.03	−0.69
Right set					
Environmentally conscious activists	−39,809.7	48,632.62	−88,740.5	89,391.57	−63,489.8
Economically oriented pragmatists	−15,840.5	19,352.20	−35,310.5	35,570.20	−25,264.1
Passive environmental supporters	−16,188.0	19,774.50	−36,084.5	36,349.84	−25,817.4
Sceptics	−11,913.7	14,556.15	−26,561.8	26,754.44	−19,002.7
hybrid pragmatists	−6426.6	7849.88	−14,322.6	14,429.89	−10,246.9

Table 7 presents the canonical weights, which indicate the relative contribution of each Sustainable Development Goal (SDG) and stakeholder group to the extracted latent factors (Roots 1–5). Only the first root is statistically significant (as noted in Table 4) and serves as the primary explanatory dimension.

In the left set, the highest absolute weight on Root 1 is observed for Goal 12 (Responsible Consumption and Production, −1.57) and Goal 13 (Climate Action, 1.30). This indicates that these SDGs are the most influential in differentiating sustainability perspectives. The substantial negative weight for Goal 12 suggests that certain groups may consider sustainable consumption policies restrictive. In contrast, the positive weight for Goal 13 implies that climate action plays a key role in shaping pro-environmental attitudes. Goal 7 (Affordable and Clean Energy, −0.72) also has a high negative weight, reinforcing the idea that clean energy policies may be perceived as conflicting with economic priorities.

In the right set, Environmentally Conscious Activists exhibit the most considerable absolute weight on Root 1 (−39,809.7), confirming that their stance on sustainability is the most distinct from other groups. In

contrast, Sceptics and Economically Oriented Pragmatists show smaller but positive weights, aligning them more closely with policies prioritising economic interests over strict environmental regulations. Hybrid Pragmatists, with the lowest absolute weight (−6,426.6), appear to be more balanced between ecological and financial considerations.

Since only Root 1 is statistically significant, the main divide in sustainability attitudes lies between strong environmental commitment (aligned with Goals 12 and 13) and economic pragmatism. This underscores the need for policies integrating environmental and economic priorities to foster inclusive, widely supported sustainability strategies. This approach increases the likelihood of achieving long-term sustainability goals by ensuring broader acceptance and inclusivity (Stern & Dietz, 1994; United Nations, 2020).

These findings indicate nuanced relationships, with some social groups supporting certain SDGs while opposing or showing misalignment with others.

The results highlight a complex interplay between social preferences and SDG progress. For instance, the first canonical correlation explains 47% of the shared variance, indicating a moderate-to-strong relationship.

Sceptics and Economically Oriented Pragmatists emerge as key influencers, with Sceptics positively associated with specific SDG indicators. Meanwhile, the negative influence of Environmentally Conscious Activists raises concerns about the effectiveness of advocacy efforts. These contrasting roles highlight the need for targeted policies, such as engaging Sceptics and Pragmatists in collaborative sustainability initiatives through local government support. For example, Copenhagen supports citizen-led solar energy initiatives fostering local involvement in renewable energy projects (Municipality, 2023). National governments can introduce tax breaks or deductions for companies actively participating in sustainability initiatives. For instance, Germany's Renewable Energy Sources Act (EEG) provides tax incentives for businesses that generate and use renewable energy on-site (Federal Ministry for Economic Affairs & Energy, 2024). Governments can facilitate partnerships between local companies and NGOs to promote circular economy practices. For example, South Korea's "Eco-Industrial Parks" initiative (United Nations Industrial Development Organization UNIDO, 2021). These examples illustrate specific measures that can engage pragmatists in collaborative frameworks aligned with broader SDG objectives through support from local and national governments.

Address the potential dissonance in the efforts of Environmentally Conscious Activists between their advocacy strategies and their actual contributions to tangible outcomes. Negative correlations between certain social groups and SDGs suggest that achieving environmental goals requires balancing conflicting priorities and fostering cross-group dialogue.

Yet, as Chapter 5 suggests, this is becoming increasingly difficult in a geopolitical context where polarised debates characterise the societal discourse.

8 Discussion

When we consider global cross-country evidence, to what extent do societal preferences align with SDGs so that such alignment could support the sustainability transition nationally and internationally? The above canonical correlation analysis (CCA) results provide insights into the relationship between social preference groups and Sustainable Development Goals (SDGs). The first canonical root captures the dominant alignment pattern between public attitudes and sustainability progress. This suggests that a fundamental divide between environmental commitment and economic pragmatism drives the primary differentiation in sustainability perspectives.

The strong loading of Environmentally Conscious Activists on the first root confirms their alignment with SDG 6 (Clean Water and Sanitation) and SDG 12 (Responsible Consumption and Production), reinforcing that this group prioritises sustainability without strong economic concerns. Conversely, Economically Oriented Pragmatists show a positive correlation with the first root but in the opposite direction, indicating a preference for market-driven solutions and a reluctance to support policies that may impose economic constraints.

Passive Environmental Supporters and Hybrid Pragmatists show weaker associations with the first root, indicating their sustainability engagement is more situational than ideological. This underscores the complexity of environmental attitudes, which exist along a spectrum rather than as a binary divide. Moreover, the statistical results suggest that the dominant distinction lies in the trade-off between environmental commitment and economic priorities.

From a policy standpoint, these insights call for tailored interventions. While engaging committed activists remains important, real progress may

hinge on shifting the views of economically driven or neutral groups. Emphasising economic co-benefits may resonate more with these stakeholders than ideological messaging. Hybrid Pragmatists, in particular, could play a pivotal mediating role in fostering cross-group consensus.

These findings reinforce the importance of aligning policy communication strategies with the dominant dimensions of public sustainability preferences, ensuring that interventions resonate with both firmly committed environmentalists and more pragmatic, economically driven groups.

Our study's findings challenge several established perspectives in the literature on public attitudes towards sustainability and the role of social preferences in advancing the Sustainable Development Goals (SDGs). While Inglehart's (Inglehart, 1997) post-materialist values theory suggests that wealthier societies develop more substantial environmental concerns, our analysis indicates that economic pragmatism remains a dominant constraint, even in developed nations. This suggests that ecological commitment in terms of SDG progress does not always correlate with financial prosperity, as Economically Oriented Pragmatists and Sceptics demonstrate resistance to sustainability policies, prioritising short-term economic stability.

Similarly, the Value-Belief-Norm (VBN) theory proposed by Stern and Dietz (Stern & Dietz, 1994) posits that personal values and beliefs primarily drive environmental actions. However, our results indicate that structural economic concerns and policy trade-offs often override intrinsic environmental values, leading to a misalignment between attitudes and behaviour (commitment in terms of SDG progress). Unlike Steg and Vlek (Steg & Vlek, 2009), who argue that greater public engagement translates into more substantial environmental policy outcomes, our findings suggest that Environmentally Conscious Activists, despite their firm commitments, do not always drive measurable progress. This highlights the limitations of assuming that increased activism alone leads to effective sustainability implementation.

Additionally, research on public opinion and climate policy (Markowitz & Guckian, 2018) emphasises the role of societal attitudes in shaping environmental regulations. However, our study suggests that the effectiveness of sustainability policies depends on bridging ideological and economic divides rather than relying solely on broad public support. Negative correlations between certain social groups and SDG progress indicate that sustainability initiatives must address conflicting priorities

and engage reluctant stakeholders through targeted interventions rather than assuming universal buy-in.

9 Limitations and Future Directions

While this study has certain limitations, it also marks a significant advancement in the quantitative assessment of social preferences related to the Sustainable Development Goals (SDGs). By developing a structured framework for analysing how public attitudes align with SDG progress, this research provides a replicable and scalable approach that can be further refined and expanded. Despite its contributions, this study has several limitations that should be acknowledged.

This study's reliance on cross-sectional data limits insights into how sustainability preferences evolve or respond to policy shifts. Longitudinal research is needed to capture these dynamics and address causality concerns in current correlations. Additionally, while CCA was applied, the findings were constrained by limited SDG and attitudinal data. Omitting contextual variables—such as policy frameworks, economic shocks, or geopolitical factors—may affect interpretations.

The study groups individuals into broad stakeholder categories, such as Environmentally Conscious Activists and Economically Oriented Pragmatists, but does not capture intra-group variations. Future research could refine these classifications using latent class analysis (Hagenaars et al., 2002) to identify more nuanced subgroups (Esquinas & Caraballo, 2022; Liashenko & Dluhopolskyi, 2024; Romero-Martín et al., 2024).

Furthermore, this framework provides a data-driven basis for sustainability governance, allowing decision-makers to anticipate potential societal resistance to SDG initiatives and craft policies that foster cross-group dialogue and collaboration. By refining and expanding this approach, future research can strengthen the integration of quantitative social preference analysis into policy planning, ensuring that sustainability efforts are both practical and widely accepted.

10 Conclusions

This chapter underscores the centrality of public attitudes towards advancing or hindering the progress of the Sustainable Development Goals (SDGs), focusing on the environmental dimension of the 5Ps framework, "Planet." By assessing how country-level social preferences

are associated with a country's progress on SDGs progress indicators, it demonstrates how societal values through social preferences relate to the trajectory of sustainability policies, particularly in goals like SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), and SDG 15 (Life on Land). The evidence points to significant regional (cross-country) variations, revealing policy implications for designing and implementing effective sustainability initiatives.

Public attitudes emerge as decisive factors in determining the pace and success of environmentally focused SDGs. Regions with strong support for sustainability policies often outperform others, whereas economically constrained or politically unstable areas face systemic challenges.

Challenges such as economic trade-offs, cultural resistance, and the spread of misinformation hinder alignment between societal values and sustainability objectives. These barriers are particularly pronounced in regions with limited institutional trust and lower economic stability.

Targeted strategies are essential to address the gap between public attitudes and SDG priorities. The following recommendations offer actionable pathways to bridge this divide:

- *Tailored Communication Strategies.* Frame sustainability initiatives within the context of local priorities. For example, in economically vulnerable regions, emphasise the potential for job creation from renewable energy projects or the economic savings associated with resource efficiency.
- *Strengthening Environmental Education.* Incorporate sustainability topics into educational curricula at all levels and leverage digital platforms for widespread awareness campaigns. Education can foster a shift towards pro-environmental preferences by demonstrating the interconnectedness of the SDGs.
- *Aligning Economic Incentives with Sustainability.* Introduce incentives such as subsidies for green technologies, tax benefits for sustainable businesses, and investments in green job creation. These measures address public resistance, particularly in regions that prioritise economic growth.
- *Enhancing Institutional Trust.* Transparent governance and participatory policymaking are prerequisites for securing public confidence. Initiatives like community-led urban greening (Johansson et al., 2024) and reforestation projects can foster a sense of collective ownership and strengthen public trust.

- *Combating Misinformation*. Collaborate with trusted media outlets and fact-checking organisations to counter misinformation about sustainability policies. Ensuring access to reliable, evidence-based information is vital for sustaining public support.

The recommendations presented here may assist policymakers, researchers, and practitioners incorporate public attitudes into the global sustainability agenda. This approach can contribute to a more resilient and inclusive pursuit of the SDGs while fostering broader stakeholder engagement.

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Competing Interests The author has no conflicts of interest to declare relevant to this chapter's content.

Ethics Approval No ethical approval was needed to obtain this study.

Appendix

See Table 8.

Table 8 Social preferences groups shares according to WVS data

Country	*Environmentally conscious activists*	*Economically oriented pragmatists*	*Passive environmental supporters*	*Skeptics*	*Hybrid pragmatists*
Andorra	0.29	0.26	0.26	0.13	0.08
Argentina	0.37	0.20	0.25	0.11	0.06
Armenia	0.43	0.22	0.20	0.08	0.06
Australia	0.44	0.23	0.19	0.08	0.06
Bangladesh	0.38	0.24	0.22	0.09	0.06
Bolivia	0.37	0.22	0.26	0.09	0.06
Brazil	0.41	0.22	0.23	0.09	0.06
Canada	0.42	0.24	0.20	0.08	0.06
Chile	0.39	0.21	0.24	0.10	0.06
China	0.45	0.20	0.20	0.09	0.05
Colombia	0.42	0.23	0.22	0.08	0.05
Cyprus	0.23	0.27	0.28	0.14	0.08
Ecuador	0.32	0.26	0.24	0.10	0.07
Egypt	0.43	0.23	0.21	0.08	0.05
Ethiopia	0.27	0.24	0.29	0.12	0.07
Germany	0.43	0.22	0.22	0.08	0.05
Greece	0.31	0.23	0.30	0.10	0.06
Guatemala	0.43	0.23	0.21	0.08	0.05
Hong Kong SAR	0.44	0.21	0.21	0.08	0.05
Indonesia	0.52	0.18	0.19	0.06	0.05
Iran	0.45	0.20	0.21	0.08	0.05
Iraq	0.43	0.23	0.21	0.08	0.05
Japan	0.41	0.22	0.21	0.10	0.06
Jordan	0.27	0.26	0.29	0.11	0.07
Kazakhstan	0.42	0.22	0.22	0.09	0.05
Kenya	0.41	0.24	0.18	0.11	0.07
Kyrgyzstan	0.43	0.22	0.21	0.09	0.05
Lebanon	0.43	0.23	0.20	0.08	0.05
Libya	0.30	0.25	0.23	0.14	0.08
Macau SAR	0.39	0.17	0.26	0.09	0.09
Malaysia	0.43	0.23	0.21	0.08	0.05
Maldives	0.30	0.23	0.25	0.15	0.09
Mexico	0.43	0.23	0.21	0.08	0.05
Mongolia	0.41	0.23	0.22	0.09	0.06
Morocco	0.43	0.23	0.21	0.08	0.05
Myanmar	0.35	0.24	0.25	0.10	0.06
Netherlands	0.27	0.32	0.25	0.10	0.06

(continued)

Table 8 (continued)

Country	*Environmentally conscious activists*	*Economically oriented pragmatists*	*Passive environmental supporters*	*Skeptics*	*Hybrid pragmatists*
New Zealand	0.44	0.20	0.21	0.08	0.07
Nicaragua	0.42	0.23	0.21	0.08	0.06
Nigeria	0.29	0.28	0.22	0.14	0.07
Pakistan	0.41	0.23	0.23	0.09	0.05
Peru	0.41	0.23	0.23	0.09	0.05
Philippines	0.36	0.25	0.23	0.09	0.07
Puerto Rico	0.38	0.22	0.25	0.09	0.06
Romania	0.42	0.22	0.22	0.08	0.05
Russia	0.43	0.22	0.22	0.08	0.05
Serbia	0.19	0.33	0.25	0.14	0.09
Singapore	0.42	0.24	0.20	0.08	0.05
South Korea	0.43	0.21	0.22	0.09	0.05
Taiwan ROC	0.40	0.22	0.23	0.09	0.06
Tajikistan	0.43	0.23	0.21	0.08	0.05
Thailand	0.43	0.18	0.22	0.10	0.07
Tunisia	0.25	0.27	0.26	0.14	0.09
Turkey	0.43	0.23	0.21	0.08	0.05
Ukraine	0.42	0.23	0.22	0.08	0.05
United States	0.43	0.23	0.22	0.08	0.05
Venezuela	0.43	0.23	0.21	0.08	0.05
Vietnam	0.44	0.23	0.20	0.08	0.05
Zimbabwe	0.34	0.20	0.27	0.12	0.08

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CHAPTER 3

Empowering Local Authorities for Sustainable Development: The Council of Europe's Role in Promoting Human Rights-Based Approaches

Natalia Mishyna

Abstract This chapter examines the role of the main bodies of the Council of Europe (CoE) in facilitating and promoting the use of the human rights-based approach by local and regional authorities, both in general and for sustainable development in particular. It identifies the intersection between local self-government, human rights, and sustainable development, analyses the main mechanisms and recent initiatives of the CoE's bodies, and identifies challenges and opportunities for continuing and promoting the use of the human rights-based approach in local self-government in Europe. The chapter aims to contribute to the ongoing discourse on the role of local and regional authorities in CoE member states in promoting sustainable and human rights-based development at the local and regional level. Through a comprehensive qualitative analysis

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of CoE initiatives and policies, the chapter identifies strategies for integrating the sustainable development efforts into a human rights-based approach. It also explores how this approach contributes to creating more resilient and inclusive communities, while advancing key SDGs. The analysis provides practical recommendations for policymakers seeking to enhance the effectiveness and inclusiveness of sustainable development efforts.

Keywords Local self-government · Local authorities · Sustainable development · Human-rights based approach · Social rights · Council of Europe · Congress of local and regional authorities · Qualitative analysis

1 Introduction

Sustainable development has emerged as a central objective of modern governance, based on the United Nations' 2030 Agenda and its Sustainable Development Goals (SDGs). Local and regional authorities[1] and thus local self-government bodies play an important role in implementing sustainable policies. More and more, they are becoming the key "agents" for ensuring that the international commitments of States are translated into on-going progress at the grassroots level. In this context, the integration of a human rights-based approach into local self-government

[1] When it comes to the documents of the CoE, there is a difference between 'local authorities' and 'regional authorities' – it's obvious that these terms are not identical when you look at the name of one of the bodies of the CoE – the Congress of Local and Regional Authorities, which consists of two chambers: the Chamber of Local Authorities and the Chamber of Regions. In the framework of the CoE, the distinction between local and regional authorities is primarily based on their level of governance and scope of responsibilities. Local authorities refer to municipalities, communes, and cities – the smallest units of government that directly manage local affairs such as housing, urban planning, public transport, and local policing. Their responsibilities are closest to the citizen and typically include the provision of basic public services. Regional authorities operate at a higher level of government, often covering a group of settlements – larger territorial units such as regions, provinces, or counties. They usually have wider responsibilities in areas such as economic development, environmental policy, infrastructure, and sometimes education and health, depending on the constitutional structure of the country. This distinction is formally recognised in the European Charter of Local Self-Government (1985).

frames is a promising area. To that extent, "international human rights law provides a scaffolding, and accountability mechanisms, that allow a systems-based and consistent response to sustainable development that can bring about transformative, structural change to reduce inequalities and challenge power imbalances" (Vandenhole, 2020). This perspective is closely connected to the Council of Europe's work in promoting human rights, democracy, and the rule of law as the foundation for sustainable development.

The Council of Europe (CoE), with its 46 member states, not only sets standards (mostly in the field of human rights), but also monitors their implementation and facilitates dialogue to ensure that human rights standards evolve in line with changes in our societies, including the trend towards sustainable governance. The Council of Europe's institutions, such as the Parliamentary Assembly (PACE), the Committee of Ministers, the European Court of Human Rights, and the Congress of Local and Regional Authorities, have in recent years paid increasing attention to local and regional authorities. They aim to apply the human rights-based approach at the local and regional level (see Council of Europe, 2013) and are making significant and targeted efforts to provide a multidimensional framework to guide and support local and regional authorities.

Despite these efforts, significant challenges remain. Local and regional authorities in the member states of the CoE generally face serious difficulties, including a lack of resources, limited or even non-existent human rights capacities, inconsistent application of the human rights-based approach both in everyday operational and administrative activities in general and in policy-making processes in particular. Coordination between the national, regional, and local levels of government remains uneven when it comes to the state's international human rights obligations. Addressing these issues is crucial to promoting the realisation of Sustainable Development Goals at the grassroots level.

This chapter examines the role of the CoE (with a focus on its main bodies) in facilitating and promoting the use of the human rights-based approach by local and regional authorities, both in general and for sustainable development in particular. It shows the intersection of local self-government, human rights, and sustainable development, analyses the main mechanisms and recent initiatives of the CoE bodies, and identifies challenges and opportunities for continuing and promoting the use of the human rights-based approach in local self-government in Europe.

The chapter aims to contribute to the ongoing discourse on the role of local and regional authorities in the CoE member states in promoting sustainable and human rights-based development at the local and regional level.

The methodology of this article is based on the desk literature research and document analysis, using a qualitative approach.

The documents analysed in this chapter include those produced by various Council of Europe bodies, such as the Parliamentary Assembly, the Committee of Ministers, the European Court of Human Rights, and the Congress of Local and Regional Authorities. All these documents were analysed using a qualitative approach, with a focus on identifying key themes, policy trends, and institutional discourses.

In addition, the activity reports of the Congress of Local and Regional Authorities for 2019–2023 were analysed using a qualitative approach that included elements of quantification. The qualitative analysis focused on thematic content, policy trends and institutional language. To further support the findings, certain terms—particularly those related to local self-government and SDG references—were coded and their frequency counted. While this process involved numerical data, it remained within a qualitative framework, as the focus was on interpreting patterns and meanings rather than conducting a separate quantitative analysis.

The terminology of this chapter is based on the European Charter of Local Self-Government 8. Article 13 states that "the principles of local self-government contained in the … Charter apply to all the categories of local authorities existing within the territory of the Party. However, each Party may, when depositing its instrument of ratification, acceptance or approval, specify the categories of local or regional authorities to which it intends to confine the scope of the Charter or which it intends to exclude from its scope. It may also include further categories of local or regional authorities within the scope of the Charter by subsequent notification to the Secretary General of the Council of Europe" (Council of Europe, 1985).

The Charter 1985 includes the term "self-government" in its title and specifies that self-government authorities are local and regional. However, it does not make a clear distinction between these two types of authorities. A more recent clarification can be found in the Reference Framework for Regional Democracy, which explains: "regional authorities are territorial authorities between the central government and local authorities. This does not necessarily imply a hierarchical relationship between regional

and local authorities" (Council of Europe, 2017). While this clarification provides a degree of differentiation, it does so indirectly. The distinction remains somewhat abstract, as it is clear who the national authorities are, but the distinction between regional and local authorities remains implicit rather than explicit.

Local authorities in the CoE context are the smallest administrative units that manage public affairs at the community level. They are the main link between citizens and national government (state government), addressing local needs such as infrastructure, community welfare, and municipal services. The CoE recognises that local self-government structures vary from one member state to another, but underlines the key role of local authorities in supporting democracy and taking decisions as close to the citizen as possible. The principle of subsidiarity allows local authorities to exercise their responsibilities at the level closest to the people, allowing quick and specific solutions to be found. At the same time, subsidiarity ensures that regional authorities can step in to address wider issues that local authorities cannot manage alone, creating a balanced system of local self-government.

2 Policy Frameworks: PACE and Committee of Ministers

Since 2015, the concept of sustainable development has provided an essential framework for addressing the biggest challenges of today's world (including economic growth, social inclusion, and environmental protection). At its core, sustainable development integrates a human rights-based approach into public governance to ensure equity, participation, and inclusiveness in policymaking and execution. These principles are closely linked to the objectives of the Sustainable Development Goals (SDGs), as articulated in the UN's 2030 Agenda (see (United Nations, 2015)).

However, most of the SDG agenda's provisions pay limited attention to the participation of local residents and communities in national and local development efforts to achieve the SDGs. Instead, the focus is predominantly on the participation of duty bearers, such as states, non-governmental and civil society organisations, and private sector entities. To achieve these ambitious goals, global strategies need to be adapted into actionable policies at the local level, where the real impact of public governance can be seen most directly. As noted by Durojaye, "due to its broad

and inclusive nature, the co-operation of all stakeholders across a variety of sectors, whether at local, regional or international level, is required to ensure the success of the goals" (Durojaye & Mirugi-Mukundi, 2019).

To support this multi-stakeholder engagement, international organisations have a key role to play in providing frameworks to guide member states in aligning national and local governance with global goals. CoE is one of such international organisations. With 46 member states, it concentrates its attention on promotion of the human rights, democracy, and the rule of law.

Within the CoE, there are several bodies that are "responsible" for the policy framework, in particular the Committee of Ministers and the Parliamentary Assembly of the Council of Europe (PACE).

PACE is often referred to as "parliamentary arm of the CoE" It has its inner structure, that now reflects the fact that sustainable development is amongst the priorities for the CoE. One of the committees of PACE is the Committee on Social Affairs, Health and Sustainable Development.[2] This Committee has four sub-committees, and one of them is the Sub-Committee on Public Health and Sustainable Development.

It is not too obvious, though, how much attention (if any) this Sub-Committee pays to the SDGs. There are two points that allow us to pose such a question.

The first point is institutional. The Committee on Social Affairs, Health and Sustainable Development has four Sub-Committees—one is mentioned above, the others are:

- Sub-Committee on the European Social Charter;
- Sub-Committee on Children;
- Sub-Committee on the Europe Prize.

While the latter is mostly operational in its nature, the two first committees in the list more or less "cover" the relevant SDGs. For example, the Sub-Committee on the European Social Charter directly

[2] According to the official CoE information, "the Committee shall consider issues relating to social rights and policies, public health, sustainable development, economic co-operation and development, local and regional democracy and good governance in these fields, having special regard to the situation of the more vulnerable groups in society" (Parliamentary Assembly of the Council of Europe (n.d.). Powers of the Parliamentary Assembly 2025).

addresses issues related to SDG 1 (No poverty),[3] SDG 8 (Decent work and economic growth),[4] and SDG 10 (Reduced inequalities)[5] by promoting social rights and equitable labour standards in member states. Similarly, the Sub-Committee on Children is well positioned to contribute to SDG 4 (Quality Education),[6] SDG 5 (Gender Equality),[7] and SDG 16 (Peace, Justice and Strong Institutions)[8] through its focus on protecting children's rights, ensuring access to education and addressing the vulnerabilities of young people (Parliamentary Assembly of the Council of Europe, n.d.).

The second point concerns the "documentary" aspect. It remains unclear whether the institutional efforts of one or more of these subcommittees are significantly focused on the SDGs. According to the Assembly's Rules of Procedure (August 2024), there is no explicit reference to the term (Parliamentary Assembly of the Council of Europe, 2024), making it difficult to determine the extent of their commitment to the SDGs.

Turning to the PACE documents on the SDGs, it should be emphasised that PACE brings together parliamentarians from member states. The goal is to discuss and address current problems (for example, social, economic, and environmental challenges), and—what is the most relevant when it comes about SDGs—to "inspire new national laws by proposing and giving opinions on treaties" (Parliamentary Assembly of the Council of Europe, n.d.).

[3] No poverty in all its forms everywhere (United Nations (n.d.). Sustainable Development Goals: 17 goals to transform our world 2025).

[4] Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all (United Nations (n.d.). Sustainable Development Goals: 17 goals to transform our world 2025).

[5] Reduce inequality within and among countries (United Nations (n.d.). Sustainable Development Goals: 17 goals to transform our world 2025).

[6] Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (United Nations (n.d.). Sustainable Development Goals: 17 goals to transform our world 2025).

[7] Achieve gender equality and empower all women and girls (United Nations (n.d.). Sustainable Development Goals: 17 goals to transform our world 2025).

[8] Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels (United Nations (n.d.). Sustainable Development Goals: 17 goals to transform our world 2025).

It might appear that PACE is playing a leading role in promoting and realising the SDGs through a human rights-based approach in Council of Europe member states—with its resolutions and recommendations providing guidance on how to align national and local governance with the SDGs (including through the involvement of national parliaments; cf. Feldman, 2004). However, this is only partially the case.

PACE has presented its main documents in this field in 2019. Chronologically, the first was the group of documents traditionally united by the same title—"Implementation of the Sustainable Development Goals: synergy needed on the part of all stakeholders, from parliaments to local authorities." It is symbolic that the first PACE recommendation and resolution on the SDGs mention local authorities not only in the text, but also in the titles.

The report (Reference 4317 of 13 October 2017) was delivered by the Rapporteur Ms. Jennifer de Temmerman, France. The structure of this document included Draft Resolution and Explanatory Memorandum by the Rapporteur. Ms. de Temmerman has underlined that the Report covers the question on "how national parliaments can help achieve the SDGs, based on examples of good practice that could serve as sources of inspiration. It also identifies gaps that need to be addressed including, in particular, the lack of awareness among parliamentarians of the 2030 Agenda." She added that, despite the main focus being on national parliaments, at the international and at the national levels it should be considered that "the successful implementation of the SDGs requires the involvement and support of all relevant stakeholders, the report also stresses the decisive role played by local and regional authorities, and the importance of the co-ordinating work carried out by regional and international parliamentary assemblies, including the Parliamentary Assembly" (Parliamentary Assembly of the Council of Europe, 2019a).

The Resolution that followed the Report also mentioned local and regional authorities.

Firstly, the document underlines, that "local and regional authorities play a decisive role in the success of the economic, social and environmental transformations needed to achieve the SDGs." The second sentence of this section (Sect. 4) explains, that "their closeness to the situation on the ground and to citizens, and their responsibility in terms of management of public investment, mean that they are in an ideal position to identify and address shortcomings in the area of sustainable development" (Parliamentary Assembly of the Council of Europe, 2019b). In

doing so, the Resolution highlights the key role of local and regional authorities in achieving the SDGs, recognising their proximity to the actual current situation in a certain community and the needs of the inhabitants.

Secondly, the Resolution has a reference to the Congress of Local and Regional Authorities. PACE invites it to incorporate the SDGs into its work programme. This strengthens the importance of local and regional authorities, when it comes to the SDGs' incorporation in the everyday realisation of CoE standards (in terms of both human rights and municipal standards).

Last but not least in this Resolution PACE "calls on members of the Assembly to refer to the Sustainable Development Goals in their reports and put forward specific recommendations concerning them whenever relevant" (Parliamentary Assembly of the Council of Europe, 2019b). Considering that the members of PACE are parliamentarians, this might have an indirect impact on local and regional authorities through the national municipal legislation.

The Report and Resolution were not accompanied by a Recommendation (traditionally, in recommendations PACE address the Committee of Ministers; these two types of PACE documents "work in tandem": resolutions raise awareness and set priorities, while recommendations direct the PACE ideas and conclusions towards concrete policy outcomes).

The structure "report—resolution—recommendation" was applied to the set of PACE documents titled "Strengthening co-operation with the United Nations in implementing the 2030 Agenda for Sustainable Development" (2019).

The Report was delivered by the Rapporteur Mr. Adão Silva, Portugal, and structurally consists of the draft resolution and draft recommendation with the explanatory memorandum. The Rapporteur underlined that "the Assembly particularly welcomes the emphasis which the 2030 Agenda places on human rights, the rule of law and good governance through democratic institutions, thereby tightly linking the Agenda with the core values on which the Council of Europe is founded" and that "the implementation of the 2030 Agenda will require full mobilisation of all stakeholders" (Parliamentary Assembly of the Council of Europe, 2019d). Though the Report doesn't mention local and regional authorities, this absence reflects a gap in the full recognition of the important role of local and regional authorities in achieving the SDGs in CoE member states. Strengthening their inclusion in such reports (literally mentioning "local

and regional authorities") would be more in line with the multi-level governance approach required for the effective and full implementation of the UN's 2030 Agenda.

Resolution 2271 doesn't mention local and regional authorities either.[9] The same goes for Recommendation 2150—none of the four recommendations that PACE formulated for the Committee of Ministers is dedicated to local and regional authorities (or at least doesn't mention the Congress of Local and Regional Authorities) (Parliamentary Assembly of the Council of Europe, 2019c, 2019e).

Practically the same situation applies to another group of PACE documents, introduced in 2019, which mention the SDGs and are "Ending violence against children: a Council of Europe contribution to the Sustainable Development Goals." The Report (Doc. 14,894), as well as Resolution 2294 and Recommendation 2159[10] do not mention local and regional authorities or the Congress of Local and Regional Authorities. As far as the SDGs are concerned, only SDG 16.2[11] is mentioned.

The Committee of Ministers has adopted the Reply to this Recommendation. It underlined that "primary responsibility for achieving the SDGs lies with the authorities in the member States. In its view, however, the Council of Europe can contribute to the implementation of 2030 Agenda for sustainable development by helping States to achieve the SDGs at national level" (Committee of Ministers, 2019b). This gives Member States various options in this area, including the involvement of local and regional authorities.

In this response, the Committee of Ministers showed two main priorities—the intention for a deeper thematic cooperation with the UN on the 2030 Agenda, and the internal focus on strengthening the awareness of SDGs among the bodies of the CoE ("the Organisation's programme of activities and budget are now drawn up in line with the relevant SDGs" Committee of Ministers, 2019b).

[9] Resolution 2271 only refers to Resolution 2272 (2019) "Implementation of the Sustainable Development Goals: synergy needed on the part of all stakeholders, from parliaments to local authorities.".

[10] Recommendation 2159 only refers to Resolution 2272 (2019) "Implementation of the Sustainable Development Goals: synergy needed on the part of all stakeholders, from parliaments to local authorities.".

[11] SGD 16.2 targets the end of abuse, exploitation, trafficking, and all forms of violence against and torture of children.

Returning to the SDGs, while PACE has adopted a document on the subject, references to the SDGs remain sporadic in the broader texts. Quite often, even when the title of the document mentions the adjective "sustainable"[12] or the phrase "sustainable development,"[13] the text itself doesn't mention the SDGs.

For example, the group of PACE documents with the title "Ending violence against children: a Council of Europe contribution to the Sustainable Development Goals" was mentioned above. The Committee of Minister adopted the Reply to Recommendation 2159 (2019). In this reply the Committee of Ministers sets a broader institutional and documental basis for dealing with this issue.

The institutional basis includes references to the European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment (CPT), European Committee on Social Rights (ECSR), Group of Experts on Action against Violence against Women and Domestic Violence (GREVIO), Group of Experts on Action against Trafficking in Human Beings (GRETA), and some others—but not to local and regional authorities.

Documental basis includes references not only to SDG 16.2, but to other SDGs as well—namely, the Committee of Ministers has underlined, that "other relevant SDG targets referring to human trafficking are 5.2 (Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation) and 8.7 (Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms)" (Committee of Ministers, 2019a).

There aren't many documents from the Committee of Ministers in this area. One of the few examples is Recommendation CM/Rec(2021)9 to member states for the implementation of the Council of Europe Landscape Convention—Landscape and responsibility of stakeholders for sustainable and harmonious development. In this Recommendation all

[12] For example, see: "Mainstreaming the human right to a safe, clean, healthy and sustainable environment with the Reykjavik process" (Report Doc. 15,955, 28 March 2024, Recommendation 2272 [2024] and Resolution 2545 [2024]).

[13] For example, see: "Sustainable urban development fostering social inclusion" (Report Doc. 14,887, 07 May 2019 and Resolution 2285 [2019]).

of the SDGs are cited in one of the footnotes (the format of the citation includes their number and short description). The Recommendation underlines that "this framework reference text is intended to be a source of inspiration for public authorities—at national, regional or local level" (Committee of Ministers, 2021). The reference to the regional and local level in this document is logical, as the CoE Landscape Convention 2000 (ETS No. 176) proclaims "the importance of the landscape at global level as an essential component of human being's surroundings" (Council of Europe, 2000). So far there are no other Recommendations of the Committee of Ministers that would mention SDG or SDGs.

This shows that the SDGs have not yet become an integral part of the legislative framework or institutional discourse, when it comes to PACE and the Committee of Ministers. This process is now underway.

In conclusion, the Committee of Ministers, in its documents with the adjective "sustainable" or the phrase "sustainable development" in the title, refers to the SDGs more often than PACE in the same documents.

A keyword analysis of Council of Europe documents from 2015 to 2024—the period following the UN's launch of the Sustainable Development Goals (SDGs) in 2015—shows that the term "Sustainable Development Goals" appears in the title of 9 PACE documents, while only 2 Committee of Ministers documents include this term in their titles. This suggests that PACE has addressed the SDGs more frequently in its publicly visible agenda-setting, while the Committee of Ministers refers to them less explicitly in document titles. This difference in focus between the Committee of Ministers and PACE on the SDGs can be explained by taking into account their different institutional roles in the CoE and their mandates.

The Committee of Ministers, as the main decision-making body of the CoE, oversees the implementation of policies across member states. Its documents often highlight the SDGs, reflecting its responsibility to align broader policy frameworks with international commitments such as the 2030 Agenda.

The Committee of Ministers, on the other hand, is a representative body of the CoE, consisting of parliamentarians from the member states. Its focus often extends to local self-government, recognising the crucial role of local and regional authorities in implementing policies at the relevant levels. This focus may come from PACE's function as a democratic institution promoting inclusiveness, representation, and the practical implementation of SDGs.

Furthermore, while the role of the Committee of Ministers often involves strategic engagement with global frameworks, PACE's role in scrutinising national governments and promoting effective policy implementation places local and regional authorities in its attention. These authorities are increasingly mentioned as an integral part of the response to economic, social, and environmental challenges, and increasingly appear in PACE documents.

This "division of focus" illustrates how the two bodies complement each other: the Committee of Ministers provides high-level policy direction, while PACE ensures democratic oversight and engagement with actors directly involved in implementation.

3 Grassroots Implementation (Congress of Local and Regional Authorities)

The Congress of Local and Regional Authorities of the Council of Europe (Congress) is usually referred to as an assembly of local and regional elected representatives of the member states. This collegial body of the CoE works in sessions, discussing problems of local self-government in Europe and possible ways of overcoming them, as well as setting trends for the future. For 2025, for example, these trends include the use of AI in local self-government, ageing communities (in terms of ensuring access to quality social care for the elderly) and activating young members of communities (in terms of involving them in decision-making at local and regional level).

In 2015, the United Nations adopted the Sustainable Development Goals (SDGs), which set a global agenda for inclusive and sustainable development. These goals have since been integrated into the priorities of international organisations, including the CoE. Despite this, the European Charter of Local Self-Government—the cornerstone of the CoE's work at the local and regional level—has remained unchanged since its adoption. As a result, it does not explicitly address the SDGs, raising the question of how local and regional authorities can align their governance practices with modern sustainability goals.

While the European Charter of Local Self-Government has not been amended to reflect the SDGs, the Congress of Local and Regional

Authorities has adapted its policy framework to meet the evolving challenges of urban governance. Since 1992,[14] the Congress has consolidated its recommendations for cities in the European Urban Charter, a document that is regularly updated in line with societal and political developments (in 2008[15] and 2023[16]). The latest version, the European Urban Charter III (2023), explicitly integrates the SDGs into its framework, making them more visible to local and regional authorities. The Charter and its accompanying documents mention the SDGs six times—three times in general terms (they are referred to as "SDGs") and three times with the specific number of one or more standards. The preamble refers to the individual SDGs as "goals" and includes references to SDG (Goal) 11,[17] Goal 16,[18] and Goal 17.[19] In the main text of the Charter, in the "green chapter," SDGs 13[20] and 15,[21] which are relevant to environmental and climate issues, are also mentioned. So, it makes them "visible" to local and regional authorities.

This is in line with the fact that the document "Priorities of the Congress of Local and Regional Authorities 2021–2026" mentions SDGs (in general, without reference to the particular goal) in sec. 26[22] and

[14] Urban Charter and the European Declaration of Urban Rights (1992).

[15] European Urban Charter II – Manifesto for a new urbanity (2008).

[16] European Urban Charter III (2023): Urban living in the era of transformations.

[17] Make cities and human settlements inclusive, safe, resilient, and sustainable.

[18] Promote just, peaceful, and inclusive societies.

[19] Revitalise the global partnership for sustainable development.

[20] Take urgent action to combat climate change and its impacts.

[21] Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation, and halt biodiversity loss.

[22] "26. The UN Agenda for Sustainable Development will continue to be a useful framework for Congress' action and its core mission. Through its political message and its work, the Congress will further contribute to the fulfilment of the Sustainable Development Goals (SDGs) and to their localisation, i.e. their realisation at local and regional level" (Congress of Local and Regional Authorities 2023).

28.[23] This inclusion is highly symbolic and indicative of wider recognition.

Along with the Priorities, the Congress publishes its activity reports (one or two reports per year, from 2019 onwards; eight reports are available on the Congress' official website).

The key findings from Table 1 can be summarised in four main points.

First, the data show that the Congress has become increasingly focused on the SDGs over time. Congress activity reports show a gradual, but notable movement towards integrating the SDGs into its agenda. Reports from mid-October 2018 to mid-April 2019 show minimal references to the SDGs, with only general mentions of Goals 5 (Gender Equality), 11 (Sustainable Cities and Communities), and 16 (Peace, Justice, and Strong Institutions): four references in total. However, since mid-October 2019, the reports have consistently included a dedicated chapter titled "United Nations 2030 Agenda—Implementation of the Sustainable Development Goals." This demonstrates a strategic focus on the UN 2030 Agenda, and highlights the increasing emphasis on sustainable development as a core focus of the work of the Congress.

Secondly, the distribution of the above-mentioned SDGs, as shown in Table 1, draws attention to a clear pattern in the prioritisation of specific SDGs:

- Goals 5 (Gender Equality), 11 (Sustainable Cities and Communities), and 16 (Peace, Justice, and Strong Institutions) are consistently highlighted in all reports, underlining their relevance to the overarching human rights and governance goals of the Congress;
- Goal 13 (Climate Action) gains prominence from the July 2020 report onwards, reflecting the Congress' growing focus on climate resilience and environmental sustainability;

[23] "28. It will in particular support local and regional authorities in implementing the SDGs and promote the balance between the three dimensions of sustainable development: social, economic, and environmental. These dimensions are mutually reinforcing and lay the foundation for a just, sustainable, and environmentally friendly society. It will take initiatives to promote behavioural change in this regard and will in particular contribute to disseminating information and best practices between European countries and regional and local governments" (Congress of Local and Regional Authorities 2023).

Table 1 Activity reports of the Congress, 2019–2023 (Congress of Local & Regional Authorities, 2019)

Period of the Activity Report of the Congress of Local and Regional Authorities	*Activity Report has a chapter "United Nations 2030 Agenda–Implementation of The Sustainable Development Goals (SDGs)."*	*Number of SDG references (in general)*	*Number of SDG references (particular goal[s])*	*Total*	*SGD(s) mentioned*
Mid-October 2018–mid-April 2019	No	2	2	4	5, 11, 16
Mid-April–Mid-October 2019	No	1	1	2	17
Mid-October 2019–June 2020	Yes	13	3	16	5, 10, 11, 16
July 2020–February 2021	No	6	3	9	5, 10, 11, 13, 16, 17
March 2021–October 2021	Yes	15	1	16	5, 10, 11, 16, 17
October 2021–February 2022	Yes	14	4	18	11, 13, 16
Highlights 2010–2022 and activities between March and September 2022	Yes	16	2	18	3, 5, 10, 11, 16, 17
September 2022–March 2023	Yes	4	1	5	11

- other Goals, such as Goal 10 (Reducing inequalities) and Goal 17 (Partnerships for the Goals) are also mentioned, although their emphasis varies between reporting periods.

Thirdly, one should look at the quantitative development. So far, the number of SDG mentions in the reports is as follows:

- reports from 2018–2019 average only three SDG mentions per report;
- from mid-2019 onwards, this number increases significantly to an average of around 12 mentions per report;
- the most recent reports (2021–2023) show a structured and systematic integration of the SDGs, as evidenced by dedicated chapters and frequent references, highlighting the commitment of the Congress to focus its activities on sustainable development priorities.

We can therefore talk about a steady upward trend.

Last but not least, it is important to look at the general mentions versus specific references to the SDGs. One can observe an evolution when it comes to the type of SDG mentions. Early reports (i.e., those before mid-2019) predominantly contain general references to the SDGs, without identifying specific goals. In contrast, later reports increasingly mention specific SDGs linked to concrete initiatives or recommendations (e.g., the October 2021–February 2022 report contains 18 SDG references, of which four are linked to specific goals, including Goals 11, 13, and 16; similarly, the most recent report [September 2022–March 2023] contains five SDG references, but only one mentions a specific goal [Goal 11]). This progression from general mentions to specific SDG references suggests a maturation of the Congress' approach to integrating the SDGs into its work, making its initiatives more specific and actionable for local and regional authorities.

These trends are in line with the priorities of local and regional authorities, as they are important actors in the implementation of SDG-related policies at the grassroots level—and, at the same time, are becoming more important when it comes to the realisation of human rights (especially social rights).

The data shows that:

- Goal 16 remains central to the work of the Congress, emphasising the importance of peace, justice, and strong institutions. Local and regional authorities are important in achieving these outcomes, particularly through transparent governance, equitable access to justice, and the promotion of social cohesion;
- the constant focus on Goal 5 highlights the role of local and regional authorities in empowering women and ensuring gender-sensitive

self-government (local and regional authorities can act as agents of systemic change while contributing to the realisation of human rights);
- the increased references to Goal 13 reflect the Congress' recognition of the local impact of the climate crisis. Local and regional authorities have an important role to play in building climate resilience, developing green infrastructure and integrating climate change aspects into urban planning.

The Congress is now discussing the introduction of a protocol to the European Charter of Local Self-Government 1985 that would cover environmental and climate issues—and the role of these authorities in combating them. It will be interesting to see whether the relevant SDGs will be mentioned in its text.

4 Policy Implications and Recommendations

The literature on the implementation of SGDs often doesn't even mention the local and regional level (and local and regional authorities; see, for example, Aly et al., 2022; Mishyna et al., 2022; Mishyna, 2019). However, the more authors emphasise the various problems with such implementation (from systematic to institutional, see for example (Bexell et al., 2023; Hickmann et al., 2024)),[24] the more we observe that their attention extends to these levels. For example, N. L. Immler and H. Sakkers claim that "while current research focuses on the governance aspect of the SDGs and the efficiency of their *implementation* by national governments, little attention has been paid to the *localisation* process" (Immler & Sakkers, 2021). S. Morton, D. Pencheon, and N. Squires mention that all levels of government are essential for the implementation of the SDGs and reflect this in the title of their article, "Sustainable Development Goals (SDGs), and their implementation: a national global framework for health, development and equity needs a systems approach at every level". These authors argue that "the Sustainable Development

[24] "Expectations were high that the new programmatic vision agreed upon by the United Nations could drive policies at the global, national, and local levels to attain sustainable development. With the first half of the timespan of the 2030 Agenda for Sustainable Development (2030 Agenda) now over, the SDGs seem to be in an acute crisis" (Hickmann et al., 2024).

Goals (SDGs) are a set of global goals for fair and sustainable health at every level: from planetary biosphere to local community. The aim is to end poverty, protect the planet and ensure that all people enjoy peace and prosperity, now and in the future" (Morton et al., 2017). That is why it is important to raise awareness and to continue to develop policy in this area.

When it comes to Europe, it should be added that the Congress often refers to the fact that two thirds of the SDGs couldn't be effectively implemented without the participation of the local and regional authorities ("two thirds of the SDG targets can only be implemented at local or regional level" Congress of Local & Regional Authorities, 2023). So far, the central document of the Congress in this area is Recommendation 493 (2023) "Localisation of the Sustainable Development Goals."

This document underlines that the SDGs remain one of the priorities of the Congress—and it is significant four our discussion that the Congress sees their importance through the prism and in the context of its human rights initiatives ("the Council of Europe contributes to the implementation on of the 2030 Agenda through a human rights-based approach building on its pan-European dimension, institutions, normative framework and capacity for action" (Congress of Local & Regional Authorities, 2023)). This Recommendation highlights the Congress' proposals for involving local and regional authorities in the implementation of the SDGs. These were presented at a UN forum and include:

- empowering local authorities to strengthen their role in implementing the SDGs;
- involving all levels in Voluntary National Reviews (VNRs) for better coordination and ownership;
- strengthening local voices to ensure their contributions are recognised;
- engaging youth as key actors in achieving the SDGs;
- a commitment from the Congress to support local authorities in aligning their efforts with the SDGs.

These proposals highlight the importance of local self-government and collaboration in achieving the 2030 Agenda.

This is in line with the evolving emphasis on the SDGs in the Congress Activity Reports, which underline the Council of Europe's commitment

to promoting sustainable development through a human rights-based approach.

The implications for local and regional authorities are as follows:

- Goal 16 remains central to the work of the Congress, emphasising the importance of peace, justice, and strong institutions. Local authorities are key actors in achieving these outcomes, particularly through transparent governance, equitable access to justice and the promotion of social cohesion;
- the strong focus on Goal 5 highlights the role of local authorities in empowering women and ensuring gender-responsive governance. From the provision of social services to political representation, local authorities can act as agents of systemic change;
- the increased references to Goal 13 reflect the Congress' recognition of the local impact of the climate crisis. Local and regional governments have a crucial role to play in building climate resilience, developing green infrastructure, and integrating climate considerations into urban planning.

This is in line with how the Congress presents its work. The official website of the Congress has a dedicated page on the SDGs, highlighting 12 goals: 1, 3, 4, 5, 8, 9, 10, 11, 12, 13, 16, and 17. However, SDGs 1, 3, 4, 8, 9, and 12 are missing from the activity plans, indicating that there is a potential for further integration.

However, further improvements could be made, as the SDGs and human rights are currently presented on two separate webpages, which may weaken the interconnectedness of these topics. Integrating these themes into a unified framework on the website could improve clarity and highlight their integral link in the Congress' mandate.

In general, the Council of Europe has developed a rich framework to promote the integration of the SDGs into local self-government (using a human rights-based approach).

As for PACE and the Committee of Ministers, they have made a lot of progress in this area, but the SDGs have not yet become the DNA of PACE's broader discourse, and thus there are few mentions of the SDGs in PACE and Committee of Ministers documents.

As for the European Court of Human Rights, none of the judgements of the Court include references to the SDGs in general or to the particular

goals. The abbreviation "SDG" is only used in the text of the judgement in *J.M. and others v. Austria* in paragraph 85 (European Court of Human Rights, 2017; Mishyna et al., 2022). In that context, "SDG" refers to the Federal Act on the Certification and Oath of Experts and Interpreters (*Bundesgesetz über die allgemein beeideten und gerichtlich zertifizierten Sachverständigen und Dolmetscher*), abbreviated as SDG in German. This Austrian legal framework regulates the appointment and certification of court-certified experts and interpreters. The abbreviation in this judgement is not related to the Sustainable Development Goals, but concerns the procedural rules and legal standards for the appointment and use of experts in legal proceedings in Austria.

As for the term "sustainable development," so far, the European Court of Human Rights uses it when it:

- names the relevant authority (like in the judgement in *H.F. and others v. France*, mentioning PACE Committee on Social Affairs, Health and Sustainable Development);
- cites the international document (like in the judgement in *Jaloud v. the Netherlands*, referring to Resolution 1483 (2003) at its 4761st meeting on 22 May 2003, adopted by the Security Council of the United Nations);
- cites national legislation (like in the judgement in *Baka v. Hungary*, referring to the new Fundamental Law of Hungary, or in *Verein Klimaseniorinnen Schweiz and others v. Switzerlan*d, also referring to the national Constitution).

A lot of work was done by the Congress of Local and Regional Authorities. The main achievements in the area of SDG implementation by local and regional authorities using a human rights-based approach are as follows:

- the President of the Congress participated in the "Going Local" session, highlighting how local and regional authorities can be supported to implement the SDGs and use the Voluntary Local Reviews to make progress;
- the Congress' *Human Rights Handbook for Local and Regional Authorities* is an important contribution to this effort. *Volume2, Social Rights*, makes two general references to the SDGs and one

specific reference to Goal 11. *Volume 3, Environment and Sustainable Development*, mentions the SDGs 22 times, although no specific goals are cited;
- the Congress organised a workshop entitled "*Why does localising the SDGs matter?—Building a sustainable future in our communities*," highlighting the role of local and regional authorities in advancing the UN 2030 Agenda (mid-October 2019–June 2020);
- a brochure on the SDGs for children is being developed in collaboration with the Children's Division, demonstrating efforts to engage younger generations and raise awareness from an early age.

These activities reflect the Council's strategic integration of a human rights-based approach into the localisation of the SDGs, and demonstrate its active role in promoting sustainable development at the local level.

It is important to recall (see details above) that in 2023 the Congress consolidated its experience in this area and proposed new directions in Recommendation 493 (2023). This Recommendation highlights a critical observation: the relationship between CoE authorities and the UN with regard to the implementation of the SDGs should be a two-way street. Currently, the UN is far less likely to refer to CoE efforts than vice versa.

While CoE bodies frequently refer to the UN and its 2030 Agenda in their work, the official UN website on the SDGs and sustainable development mentions the CoE only once, in a report on sustainable development from 2002. The relevant sections of the UN website lack any recent updates or news on the CoE's activities, and the CoE is not listed among the main stakeholders, partners, or contributors in this area.

This disparity highlights the need for greater mutual recognition and cooperation between the CoE and the UN, to ensure that the full potential of local and regional authorities in the implementation of the SDGs is realised in the future.

5 Ethics Approval

No ethical approval needs to be done for this study.

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CHAPTER 4

Sustainability Transparency in the Banking Sector

Inna Makarenko and Bodo E. Steiner

Abstract This chapter maps the scientific landscape on sustainability transparency in the banking sector, identifies and reviews relevant transparency dimensions, and highlights relevant theories and research gaps. For this purpose, a hybrid literature review is conducted based on 489 peer-reviewed papers indexed in Scopus for the period 2000–2023. A mix of quantitative tools (Bibliometrix R, VOS Viewer, SciVal, InfraNodus) and procedures (PRISMA, Citation Count Regression) is applied, with a focus on the relevance of legitimacy theory, stakeholder theory, and the multistakeholder approach. Sustainability transparency relevant to banks is viewed as a multi-dimensional construct related to disclosure efforts from the perspective of Environmental, Social, and Governance criteria (ESG). The literature review suggests that an understanding of sustainability

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transparency in banking should also explicitly account for the Sustainable Development Goals (SDGs), which is currently not the case. The literature shows that a lack of transparency can lead to the erosion of social trust and legitimacy through green- and other types of washing. Yet when stakeholders' most material needs for transparent and credible information are met, good governance can prevail. The chapter elucidates why sustainability transparency benefits standard-setters and policymakers in the banking sector. It indicates potential areas for improvement of bank governance and supervision towards more transparent and credible bank disclosure in the European Union.

Keywords Banks · ESG · Sustainability · Transparency · Bibliometric analysis

1 Introduction

When we consider transparency dimensions and their relevance in the discourse on sustainability from a triple-bottom-line perspective (Elkington, 1998), we could define to "sustainability transparency" as how organisations disclose their environmental, social, and governance (ESG) practices. The "how" refers to a matrix-thinking in terms of which means the organisations use to disclose their activities or sustainability intentions (e.g., what type of sustainability reporting standard to choose) and how these means are matched by different levels of informational depth (extent), accuracy, and clarity. In this understanding, "sustainability transparency" is considered as a sub-component of "sustainability governance," as highlighted in the introduction to this volume.[1] Transparency contributes here to better governance through aligning individual citizen, investor, and other stakeholder interests with those of the collective corporate economic interests mainly through two key mechanisms (Barker, 2025). First, though increasing visibility as a function of high quality, comparable data, and thus the social licence to operate as an organisation (Barker, 2025), i.e., through social legitimacy. Second,

[1] "Truthfulness, transparency, accountability, and efficacy of the institutional frames shaped by political leaders within which private and public decision-making takes place on sustainability matters are central tenets of sustainability governance."

greater transparency is a foundation for reducing negative external effects (e.g., environmental externalities), whether by means of rewarding relatively sustainable companies with greater market opportunities, or otherwise by creating more effective alignment between corporate profitability and societal aims (Barker, 2025). Yet when such foundations are captured by key stakeholders like the financial industry (Shleifer & Vishny, 1997), sustainable business ambitions may still end up dwarfed by the dominance of shareholder wealth maximisation (Hart, 2024).

Placing the above understanding of transparency into the current geo-political context, the European Central Bank's May 2022 Financial Stability Review (FSR) has been prepared against the backdrop of the invasion of Ukraine, highlighting not only the deterioration of global financial stability conditions, but also the need for transparency (globally consistent metrics and better data) under current margining practices as sufficient margining is an important safeguard in the financial system (ECB, 2023a).

Designing effective transparency systems for global sustainability governance is a contested issue (Gupta et al., 2020); a less disputed key milestone in promoting transparency in the banking sector is the Basel Accord with its historical focus on minimum capital requirements, bank governance, and market discipline (Alexander & Lastra, 2022; Brown, 2001). This Accord from Principle 12 of Basel's Corporate Governance Principles for Banks established disclosure and transparency at their core (Committee, 2015).

After the adoption of the UN Sustainable Development Goals (SDGs) in 2015, the banking sector has been considered as potential key driver for bridging the SDGs gap via its ability to channel financial resources to ESG projects via mandatory ESG disclosure (Dierksmeier, 2016), by integrating ESG considerations into financial decision-making through green loans aiming to foster economic de-carbonisation (Liang & Renneboog, 2021). At the same time, ESG considerations created an additional risk exposure for banks (Sá, 2022). That is why, in 2022, the Basel Committee introduced principles for climate risk (Alexander & Lastra, 2022).

The European Central Bank assessment of 131 market participants on climate and environmental risks shows that only 34% of banks disclose risks on social and governance risks, which including climate and environmental risks (ECB, 2022). These developments point to the need for innovative transparency measurement with a focus on banks' ESG transparency, leading to two key research questions of this chapter: (1) what

is the current scientific landscape in bank sustainability transparency, and (2) what are the relevant dimensions of ESG transparency, i.e., which frameworks are employed and what research gaps exist particularly in the EU?

While EU government bodies have been increasingly recommending that the banking industry integrate sustainability and ESG risks into their business models (ECB, 2023b), some banks have taken action to increase their participation in voluntary sustainable banking initiatives. In 2023, there were 81 signatories, with US$43 trillion, in the Sustainable Banking Network; 117 signatories to the Net Zero Banking Alliance, with US$70 trillion in assets (MSCI, 2023); and 325 signatories of Principles of Responsible Banking, representing 50% of the global banking industry as measured by assets (Adu et al., 2022; UNEP, 2023).

Although all ESG assets under management were estimated at US$38 trillion in 2022 and were expected to rise to US$53 trillion by 2025 (Bloomberg, 2021), we observed an actual decline in ESG interest (FT, 2024). In line with the earlier sharp market growth, we observe a shift and growth in regulatory tools—among 130 countries, 57 ESG policies were issued by central banks, 12 of them in Europe (CS., 2023).

Despite the growing regulatory landscape, the nature of banks' sustainability transparency is complex in terms of measurement and not apparent from the point of view of different "washing concepts," such as greenwashing (Venturelli et al., 2024). Greenwashing alone has been a significant issue already in 2023, when the Deutsche Bank-controlled investment firm DWS was charged US$25 million by the U.S. Securities and Exchange Commission with allegations of greenwashing and unfair recognition of ESG assets.

The remainder of this chapter aims to map the current scientific landscape in bank sustainability transparency and review its transparency dimensions, frameworks, and research gaps with some implications from an EU perspective. While the multi-dimensional view of transparency—accuracy, clarity, and information disclosure—is addressed throughout, we also note their distinctiveness from related constructs such as informational justice and the capability of predicting perceptions of an information source's trustworthiness (ability, benevolence, and integrity) (Schnackenberg et al., 2021), which are not addressed in this chapter.

First, the theoretical and conceptual frameworks discussion for the chapter leads us to describe the diverse academic landscape. Existing ESG metrics and indicators need to be improved in their ability to fully reflect

the accountability of banks regarding their ESG risks for financial meltdown (Myers, 2013), the consistency of ESG indicators and their impact on the environment (Grewal & Serafeim, 2020; Serafeim et al., 2019). Similar inconsistencies are observed in the external ESG ratings (Liang & Renneboog, 2021). Existing ESG metrics in the financial industry have faced significant criticism regarding their integrity and effectiveness in legitimising financial institutions (Clark & Dixon, 2023).

Transparency can be associated with financial service sector engagement with stakeholders and this engagement can be used for managing organisational hypocrisy (Higgins et al., 2020) from the perspectives of preventing greenwashing and other types of washing issues (green- (Bowen & Aragon-Correa, 2014; Khan & Bose, 2021; Shleifer & Vishny, 1997); pink- and social- (Connell, 2023; Venturelli et al., 2024), ESG-washing (Huang & Bui, 2022), and window-dressing (Papasolomou-Doukakis & Kitchen, 2004)). Such stakeholder engagement has been motivated for understanding bank behaviour through stakeholder theory and the underlying stakeholder decision-making processes (Deegan & Blomquist, 2006; Haufler, 2010; Herremans et al., 2016; Hörisch et al., 2014; Manetti, 2011; Raman et al., 2023). Banks are affected by regulatory compliance in order to gain legitimacy through transparency and public trust, while preventing regulatory capture (Kwak et al., 2014). So, the conceptual basis of much of the current research is stakeholder and legitimacy theory (Deegan, 2002; Hassan & Rabbani, 2023; Ielasi & Bellucci, 2023) and the multistakeholder approach. In these views, bank transparency and disclosure are balanced between needs for government supervision, legitimacy, and stakeholder pressure (Ruiz-Blanco et al., 2022).

There are several global examples of stand-alone chapters relating to different ESG metrics, including the sustainability efficiency of Chinese banks in 2007–2017 (Tan et al., 2017); ESG transparency of 235 European banks in 2007–2016 (Buallay, 2019); the environmental, social, governance and indirect impacts of 114 European banks (Ielasi & Bellucci, 2023); Quality and Compliance Bank Management Reports Index for 75 Ukrainian banks (Makarenko & Sukhonos, 2020); and the information disclosure and transparency of nine Vietnamese, Thai, and Singapore commercial banks (Nguyen & Nguyen, 2020).

The integration of such metrics into banks' performance assessments for 2020 relevant papers derived from Google Scholar for 2016–2021 suggests that data on banks' ESG and sustainability performance have

limitations (Krisciukaityte et al., 2023), and that the methodology of calculation of ESG metrics is not transparent (Buallay et al., 2021; Clément et al., 2023; Nguyen & Nguyen, 2020). From the perspective of global investment banks and asset managers (Goldman Sachs, HSBC, UBS), sustainable banking should be more transparent, and quantifying metrics should be more reliable (Strauß, 2023). Yet there seems no consensus in academia, even in the titles and definitions of these metrics and how ESG dimensions should be disclosed (Clément et al., 2023).

To further develop the diversity of the academic discourse, the current chapter focuses on banks' ESG transparency dimensions via scientific mapping, review, and gap identification in this emerging scientific area. From a methodological point of view, the chapter relies on a hybrid systematic literature review of the peer-reviewed chapters from the Scopus database in 2000–2023 as of June 1, 2024 (Paul & Criado, 2020). It includes a bibliometric analysis of bank sustainability transparency with the Bibliometrix R package (Aria & Cuccurullo, 2017), SciVal and VosViewer, a systematic literature review (SLR) of the filtered chapter based on the PRISMA protocol, an identification of research gaps and prospects with InfraNodus, and finally a robustness check with citation count regression (CCR) procedures.

The chapter attempts to add a clear, well-recognised research protocol (cf. Aracil et al., 2021; Hassan & Rabbani, 2023; Krisciukaityte et al., 2023) and the robustness check (compared to all review-oriented papers), as well as hybrid review, integrating both bibliometric and structured reviews (Paul & Criado, 2020).

The first stage of implementing the abovementioned approaches is bibliometric mapping of the relatively new area of bank sustainability transparency. This type of analysis aligns with several similar studies (Galletta et al., 2022; Hassan & Rabbani, 2023; Zhao & Nan, 2023). Compared to these previous studies, the current chapter applies the mixed methods approach and different tools for bibliometric analysis.

The second stage is a systematic literature review within the PRISMA protocol (Liberati & Altman, 2009), gap identification with InfraNodus, and robustness check with CCR (Staszkiewicz, 2019).

Third, for the publication search, the Scopus database was used. This search string "sustain* OR ESG AND bank* AND transparen* OR report* OR disclosure" gives 2038 original entries. Additional filtration procedures were performed with limitation of the paper sample to

Business, Management, and Accounting (BMA) and Economics, Econometric, and Finance (EEF). The initial sample after in-built Scopus instruments filtration for bibliometric analysis includes 489 papers. The mapping of these chapters is conducted in Sect. 2, below. In this process, duplicated, irrelevant papers or SLR were excluded from the sample. The total subsample for CCR and Prisma SLR is 191 papers. The main insights about ESG dimensions from the relevant papers out of these 191 are extracted and analysed in Sect. 3, below.

2 Bibliometric Mapping—Mixed Methods Approach

For 2000–2023, the annual growth rate of publication activity was 21.78%, which means that bank sustainability transparency is a fast-growing niche in academia with a paper average age of 4.72 years. In 2023, there were 93 relevant papers published (Fig. 1), with significant growth of the scientific activity observed from 2020 onwards. For example, EU SFDR, a milestone in banking ESG disclosure, was adopted in 2019. The average number of citations per article is 14.78 out of 489, and there is a general upwards trend of average article citations per year.

The mapping of countries' scientific production (Fig. 2.) supports the idea of the spreading of bank sustainability transparency publications worldwide, with coverage on strict regulations of bank ESG disclosure. However, the international co-authorships in the sample is only 23.11%, and most published papers are single-country publications.

This country-level focus implies that the transparency dimensions can rely on some internal country regulations in the banking sector (Fig. 3). The leading countries in the sample are Anglo-Saxon countries (the UK, the US, and Australia) and Muslim countries (Malaysia, Indonesia, Saudi Arabia, UAE). This fact gives additional perspective to the SLR with sustainability transparency assessment in conventional and Islamic banking.

Among the most relevant sources on sustainability transparency in the banking sector Corporate Social Responsibility and Environmental Management and Business Strategy and Environment are the leading journals.

After analysing the general sample characteristics by country and sources, a thematic analysis of the sample gives a general understanding of thematic branches of the concept of sustainable transparency in Banking.

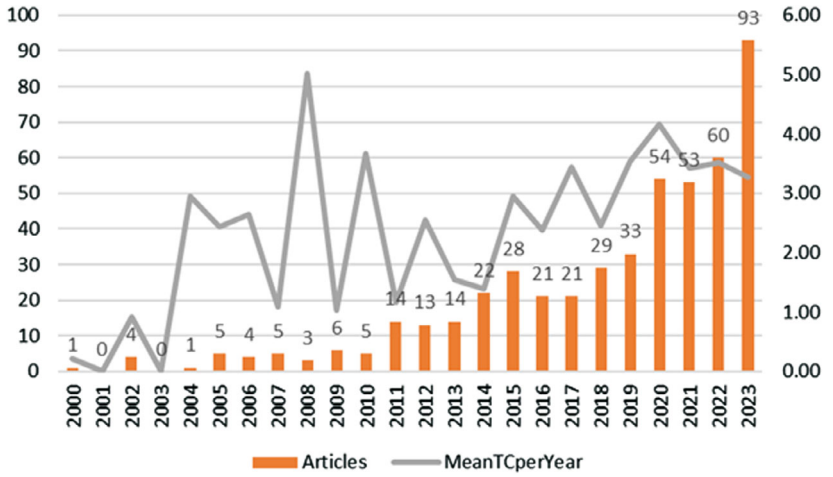

Fig. 1 Annual scientific production and average citation per year on bank sustainability transparency in 2000–2023 (*Source* Bibliometrix)

Fig. 2 Top 100 Institutions publication set, by scholarly output on bank sustainability transparency in 2000–2023 (*Source* Sci Val)

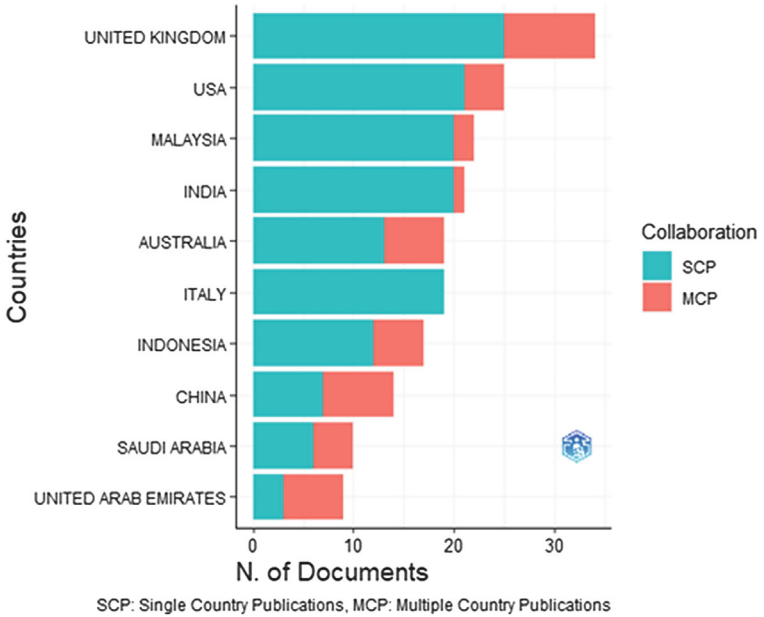

Fig. 3 The most productive countries by scholarly output on bank sustainability transparency in 2000–2023 (*Source* Bibliometrix)

Figure 4 shows that the most frequent keywords during the last decade (in descending order) are "Banks," "Sustainable development," "Corporate social responsibility," "Sustainability," and "Sustainability reporting."

All these keywords are covered by the most relevant BMA and EEF subject areas with the most prominent topic cluster "Green innovation; Industry; Social Responsibility" (Fig. 5). The Field-Weighted Citation Impact of this cluster is 1.07, which means that publications in our sample which belong to this cluster are cited 7% more than average publications in the field.

In cluster two (Fig. 6), the most prominent topics (the prominence percentile is higher than 98 and is still growing) are "CSR, Corporate Volunteering, Content Analysis" and "CSR, Corporate Volunteering, Ownership."

Sustainability (red) and sustainable development (purple) clusters are not the only clusters in the conceptual structure (Fig. 7). While the

Fig. 4 Keyword frequency in bank sustainability transparency in 2012–2023 (*Source* Sci Val)

sustainable development cluster includes general terminology, the sustainability cluster covers the trust, Global Reporting Initiative, corporate governance and transparency with relation to the banking sector.

Islamic banking, blockchain, ESG disclosure, ESG, sustainable finance, are the most recent concepts in the sample (Fig. 8).

Conducting an author analysis, there are 107 single-authored documents in the sample and more than three co-authors per document. The most productive output by author and their relationship with key topics and references are presented in Fig. 9.

3 A Brief Structured Literature Review on Banking Sustainability Transparency

Prior to the global financial crisis of 2008/09 and the inception of the SDGs, the focus of the transparency debate in banking was on financial instability, rather than on social or environmental sustainability dimensions and impacts. A prevailing view was that transparency regulation may be unnecessary if not counter-productive, not only because an extensive financial safety net may eliminate the disciplinary effect of transparency regulation, but also because achieving transparency lowers the private costs to banks of risk-taking (Hyytinen & Takalo, 2000). However, later

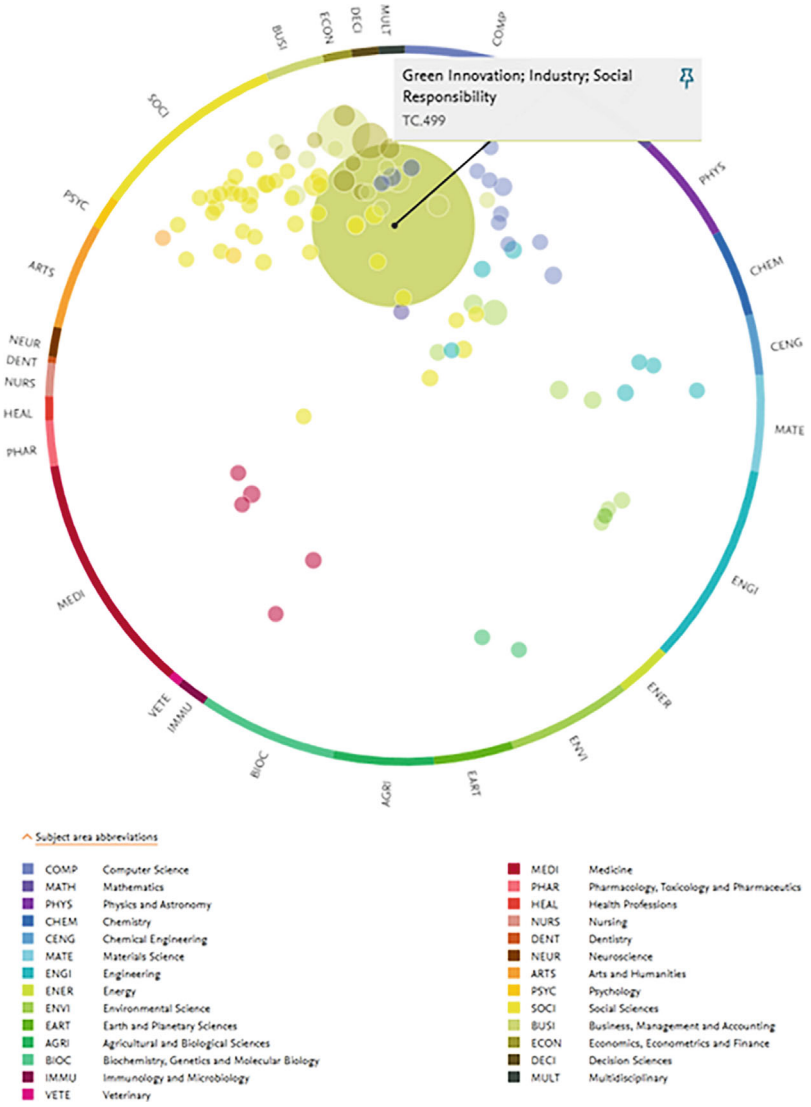

Fig. 5 Top 5% topic clusters worldwide by prominence percentile on bank sustainability transparency in 2000–2023 (*Source* Sci Val)

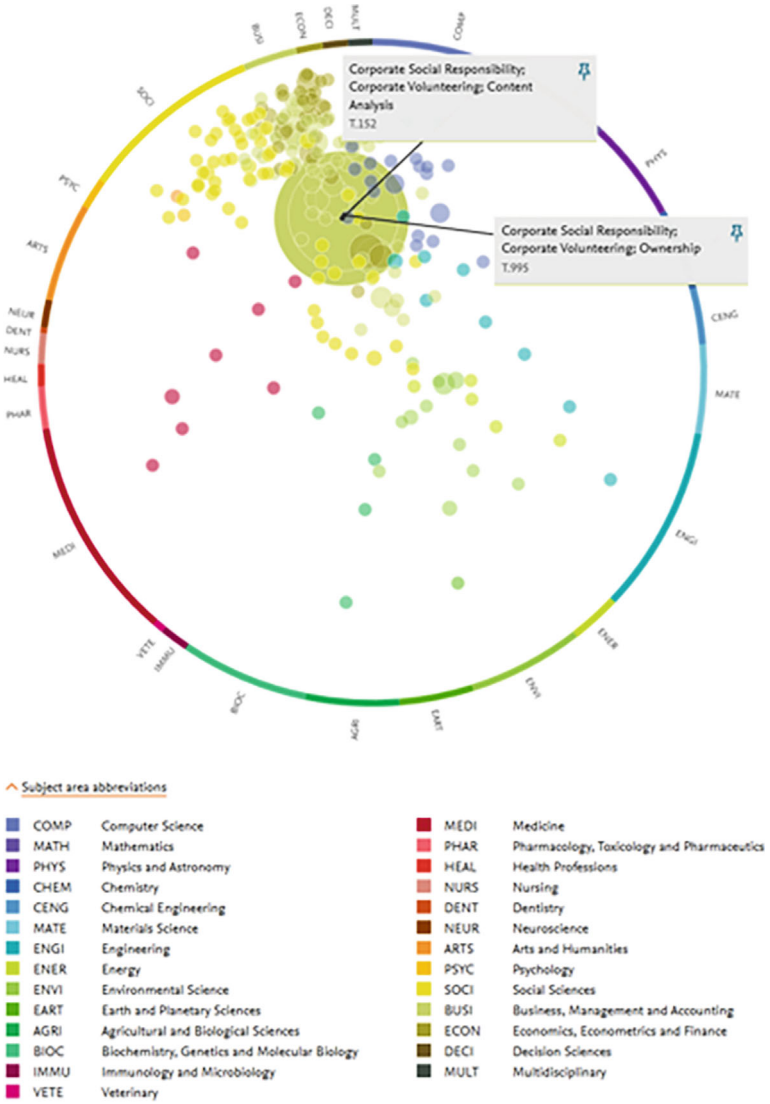

Fig. 6 Top 5% topics worldwide by prominence percentile on bank sustainability transparency in 2000–2023 (*Source* Sci Val)

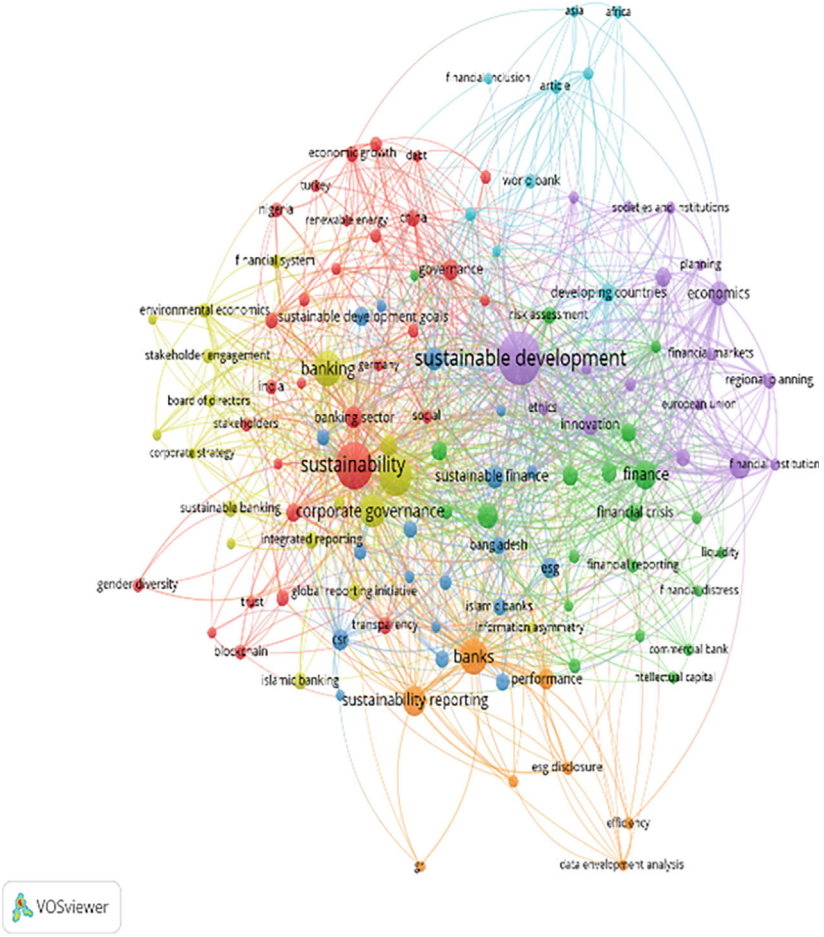

Fig. 7 Co-occurrence keywords map on bank sustainability transparency in 2000–2023 (*Source* VOS Viewer)

conceptual research argued that the coordination issue between private and transparency regulation may prevent certain types of systemic crises by eliminating the possibility of the depositors' coordination failure as a function of the self-fulfilment of depositors' expectations (Hyytinen & Takalo, 2001).

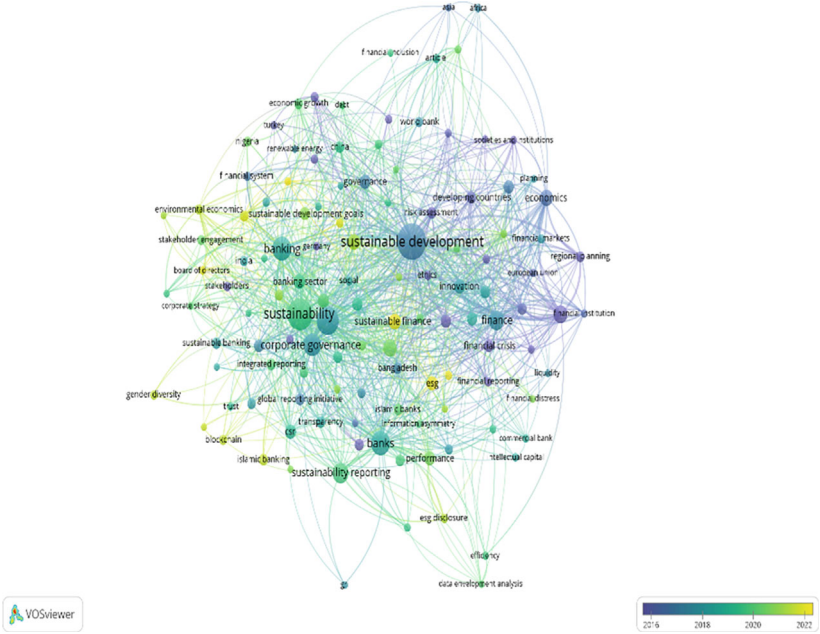

Fig. 8 Co-occurrence keywords map on bank sustainability transparency in 2000–2023 (chronology mode) (*Source* VOS Viewer)

Yet undoubtedly, the standardisation of banks' reports via Basel III in response to the global financial crisis of 2008/09 has been a key shift in the regulation of global financial institutions. This shift was largely supported by the public, since later evidence suggested that financial stability and transparency are closely related (ECB, 2023a; Moraes et al., 2024). In response to this relationship, Horváth and Vaško (2016) constructed a central banks' transparency index regarding banks' framework to safeguard financial stability, for 110 countries. Their index mimics established monetary policy transparency indexes (Eijffinger & Geraats, 2006) and the construction of transparency of banking supervisors (Liedorp et al., 2013). These indexes are typically divided into five categories: economic, political, procedural, operational, and policy transparency (Horváth & Vaško, 2016). As for private banks, key dimensions of transparency associated with reporting relate to information accessibility and thus information asymmetry between ratings providers and

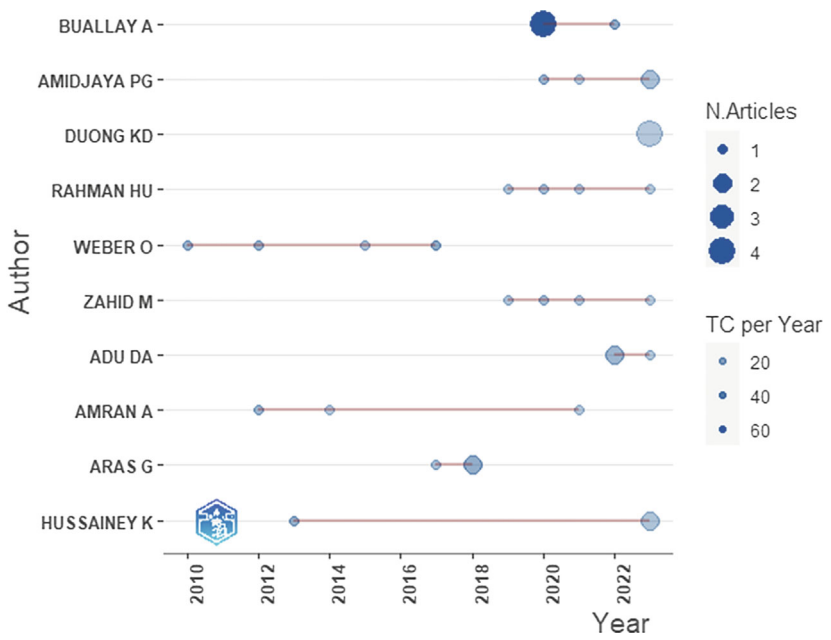

Fig. 9 Most productive and cited authors on bank sustainability transparency in 2000–2023 (*Source* Bibliometrix)

clients (i.e., ESG ratings providers, such as MSCI ESG ratings or Sustainalytics, differ in the degree of public availability of data), disclosure and thus reporting quality in terms of accuracy and timeliness, the use of third-party information intermediaries such as auditors, and the degree of information asymmetry among investors themselves as a function of private information (Haq et al., 2024).

For the review in our sample, all papers that were selected following the PRISMA protocol (191 papers) were involved in SLR with sub-criteria relevant to the key transparency dimensions. Special attention was given to the robustness check of the sample. Based on 191 observations and adjusted $R^2 = 0.234$, the coefficient significance model does not have a prediction value but allows to identify the 24 the most influential papers and utilise them in SLR.

To benchmark our above findings, consider that the topics of bank CSR disclosure and general transparency focus have been extensively

explored in earlier papers (FT, 2024; Laidroo & Sokolova, 2015). Later papers in our sample investigate sustainability and SDG-related disclosure, especially regarding environmental and social goals (Muhmad & Mohamad Ariff, 2023) and adherence to specific SDG targets (Aguado-Correa, et al., 2023). During the tracing of papers in our sample, two overall challenges were identified in the sustainability transparency literature:

1. A lack of analytical connections between the themes of CSR, SDGs, ESG, TBL, especially through multistakeholder approaches.
2. The coverage of plural categories describing bank transparency (especially disclosure quality, aspects of accountability).

It is well established that increased information asymmetries between bank managers and stakeholders may lead to greater lack of transparency (Kladakis et al., 2023). Bank disclosure of sustainability information would help reinforce stakeholder trust (Bollas-Araya et al., 2014), hence transparency on community, staff, and supply chain issues are needed for public trust (Mo-Ching Yeung, 2014). The implication is that responsibility, accountability, and sustainability go hand in hand for banks to make progress towards social and environmental commitments to stakeholders (Hetze & Winistörfer, 2016).

Regulators' guidelines, standardised reporting formats, and banks' corporate social performance are influential factors determining the quality of sustainability reports (Khan & Bose, 2021). Companies aiming for greater transparency and stakeholder engagement through disclosure receive rewards, most particularly companies with a high level of emphasis on sustainability as they were found to significantly outperform their counterparts over the long term, both in terms of stock market and accounting performance (Eccles et al., 2014). Although the amount of sustainability reports has increased with rising allocation of company resources, a lack of efficacy in delivering the promised transparency benefits has been observed for a long time (Eccles & Krzus, 2014). The necessity of accountable external verification of banks' sustainability disclosure (audits) is thus crucial for all dimensions of transparency regardless of the framework used. In the following we will briefly discuss the different frameworks used by Islamic banks, under each of the triple-bottom-line pillars.

The Islamic banks literature has demonstrated a focus on the quality of their sustainability reporting and environmental dimension (Sobhani et al., 2012), or on the governmental dimension (Mahdi et al., 2023). The difference between ***Islamic banks*** and conventional banks in interpreting corporate goals, adherence to SDG and in terms of sustainability disclosure compared to conventional banks relates mainly to four dimensions: employees, communities, environment, and products and services (Ghoniyah & Hartono, 2020; Lui & Zainuldin, 2022). The main stakeholders' perspectives of these banks are economic, environmental, social sustainability, and governance quality (Ammar et al., 2023). The social dimension is given more weight than the environmental (Hamidi & Worthington, 2021) and especially important to Indonesian Shariah banks (Handayati et al., 2017). Other work suggests that Islamic banking is places significant importance on the governance dimension, specifically banks disclosing more on the "corporate vision," "board of directors and top management," rather than on "environment" and "product, services and fair dealing with supply chain" (Darus & Fauzi, 2014).

The description of Islamic banks' sustainability transparency as visible in our sample sheds light on the general understanding of transparency as a complex notion, including different dimensions from the stakeholder perspective. All typologies of Islamic banking identified can somehow be allocated to one or another economic, social, environmental, or governance dimension using a multistakeholder approach utilised in this paper. Only E, S, G, or Economic (Ec) dimensions are relatively unique in the sample (Table 1). When the consideration of single dimensions is analysed, the environmental dimension has the highest percentage of publication coverage compared to social and governance dimensions. Governance dimensions are the least explored from the ESG perspective, and the economic dimension is least explored from the perspective of sustainability pillars.

Papers that cover only the ***economic dimension*** of sustainability in our sample have a relatively small share and appear otherwise only in combination with other dimensions of sustainability as TBL pillars. In Al-Dhaimesh and Al Zobi (2019), GRI 2013 Guidelines were used, comprising the three standard dimensions: economic, social, and environmental. The same categories of GRI standards, 100 universal, 200 economic, 300 environmental, and 400 social, were used for banks' sustainability compliance assessment addressing these economic, social, and environmental dimensions (Abu Al-Haija et al., 2021). The exact

Table 1 Banks' sustainability transparency papers distribution according to ESG and Ec dimensions

Dimension	*Single-dimension*		*Mixed-dimensions*	
	Papers	*%*	*Papers*	*%*
E	18	11.3	109	68.6
S	13	8.2	105	66.0
G	11	6.9	74	46.5
Ec	–	–	38	23.9

Source Author calculations

dimensions have been considered as constitutive of the term "sustainable development" in the banks' disclosure context (Tawfik et al., 2021). Other work focussing on the economic dimension shows the relevance of stakeholder theory to banks' corporate sustainability disclosure (Zahid & Rahman, 2020), or covers different social and environmental indices for banks' sustainability performance measurement (Ellili & Nobanee, 2023; Zyznarska-Dworczak, et al., 2023).

Environmental dimensions concentrate on carbon footprint measurement (Yurtsever & Firat, 2019), the role of bank CEOs in initiating banks' environmental activities and disclosing environmental performance (Sumarta et al., 2021), climate-related governance and strategy issues (Nathalia & Setiawan, 2022), green banking practice (Birindelli & Palea, 2023), and corporate environmental performance measurement (Wang & Zhang, 2023). The literature has also shown that banks' environmental performance could increase through the implementation of managerial incentives related to climate change strategy and disclosure (Galletta et al., 2021). However, while there are signs of greenwashing or gaps in banks' reporting, the literature suggests that transparency assessment cannot definitively measure how information overload and greenwashing affects the accountability of banks' climate reporting (Eccles et al., 2014). Bank-specific recommendations are explored in other papers by assessing the strategy, risk management, metrics, and targets categories and taxonomy disclosure under TCFD (Task Force on Climate-related Financial Disclosures) (Friedrich et al., 2023; Moreno & Caminero, 2022). Considering performance implications associated with environmental sustainability disclosure, we have evidence that the more green banking practices

are disclosed accurately, the more the banks' image improves (Alshebami, 2021). Finally, when we consider all work across all transparency dimensions and TBL pillars, the environmental pillar is mentioned most frequently in our sample of papers analysed.

The social dimension in bank disclosure is present in the second highest set of papers examined. While the environmental-focused studies provide a clear focus on climate neutrality and green practices, the disclosure of the social dimensions is less clear-cut. In general, banks are more focused on implementing policies for personal and work-life balance with systems for employee training and promotion, equal opportunities and participation, the maintenance of good customer and supplier relations, and the fight to counteract bribery (Amor-Esteban & Galindo-Villardón, 2019).

In several cases, the literature suggests that banks' social transparency needs to be improved significantly, identifying gender-washing (Mogaji & Hinson, 2020) or omission of metrics like "equal remuneration," "weak stakeholder engagement," "occupational health and safety," and "customer privacy" (Kumar et al., 2018), and poor remuneration disclosure (Smit & Zyl, 2016). In contrast, the literature shows clearly that stakeholder engagement, customer loyalty, brand equity and digitalisation of ESG (Sarpong et al., 2023), reputation and relationship with employees (Perera & Rainsbury, 2023), and customer care, product/service offerings appeal, customer satisfaction, and brand trust (Amegbe & Osakwe, 2018) are key elements of banks' social disclosure.

The governance dimension has the lowest share of the publications relative to environmental and social, although the benefits of good corporate governance with respect to transparency of governance and internal reporting, financial and non-financial conditions remain really importatnt (Siswanti & Sukoharsono, 2019). It is also established that the management ownership structure has favourable relationships with the quality of sustainability reporting (Ielasi & Bellucci, 2023), and that good governance disclosure can be key for achieving SDGs, as banks' corporate governance mechanisms positively impact sustainability banking disclosure (Adu et al., 2023). Gender factors play an essential role in the governance dimension of banks' transparency, not only because banks' CSR reporting is found to be more prevalent in masculine-oriented countries (Tapver et al., 2020), but also because it provides a positive impact on governance index (Knežević et al., 2023) and earning predictability (Ogundajo & Adegbie, 2023).

Overall, across all TBL dimensions, the literature often jointly discusses all three dimensions, most frequently the environmental and economic dimensions together (Ghoniyah & Hartono, 2020). This is also likely a reflection of the finding that the environmental and social dimensions of transparency impact on bank risk-taking (Moraes et al., 2023) has a persistent effect. Banks with enhanced safety measures exhibit higher levels of transparency regarding social-environmental dimensions, supporting the significance of banking regulation in fostering increased transparency in contrast to earlier expectations (Hyytinen & Takalo, 2000).

From the above review, five main dimensions were identified for fulfilling the principles of sustainability and the seven dimensions of CSR:

- community—caring and disclosure;
- consumers—products and services;
- environmental issues—certification and schemes;
- staff issues—talent development;
- supply chain—performance (Mo-Ching Yeung, 2014).

Burns, Houghton & Stewart, 2020 made the prioritization the CSR dimension from most to least important: economic, stakeholder, social (gender omitted in some organisations), ethical, discretionary (sometimes omitted), and sustainability (environment often omitted) (Burns et al., 2020). Yet it is challenging to prioritise the dimensions, so banks should apply the concept of materiality (double materiality in the EU) in responding to their stakeholder's requests. The stakeholder categories are common (regulators, clients, society, employees, shareholders, ranking agencies), but the type of bank (retail, investment, cooperative, Islamic, or conventional) provides an additional frame for defining the most material stakeholder request as well as the regulation provision according to jurisdiction. For example, in sustainability reports, cooperative banks provide more information on social issues than economic or environmental issues (Committee, 2015).

The materiality matrix for stakeholders includes economic, ethical, philanthropic, and legal perspectives (Formisano et al., 2018). Interestingly, transparency itself, as well as clarity of stock and transparency of governance structures and transparency towards market and authorities, has been assigned to a legal perspective (Formisano et al., 2018).

Clearly, all of these different perspectives—economic, ethical, philanthropic, and legal—are shaping the disclosure and transparency discourse. Aras, Tezcan & Kutlu Furtuna, 2018 (Aras et al., 2018) emphasise a multidimensional corporate sustainability model with the five dimensions of economic (4 indicators), environmental (21), social (44), governance (11), and financial (6) disclosures, adding financial and governance indicators to the traditional three sustainability pillars. Further, in line with the TBL framework, three indexes were constructed to capture banks' economic value creation (profit-bottom-line), social responsibility (people-bottom-line), and its environmental impact (planet-bottom-line) (Onwuka et al., 2019). The last typology is quite similar to traditional sustainability pillars and reporting frameworks.

In sum, we see a more holistic ESG approach to banks' sustainability disclosure, which is, at the same time, more common for sustainability information providers and rating agencies.

4 Discussion and Gaps

The above sections tried to highlight some research gaps in two ways, qualitatively with a brief systematic literature review, and quantitatively with InfraNodus software. The quantitative gap assessment with the InfraNodus algorithm was applied to the abstracts and limitations of the research extracted.

We observe the second layout of the influential nodes in the research limitations of the paper sample, which suggests four clusters:

1. sustainability performance (pink);
2. ESG and transparency (dark green);
3. variables and associated limits (orange);
4. corporate data (light green).

A more detailed description of the cluster composition is provided in Table 2, highlighting the main nodes and pointing out potential research gaps. It suggests that the most influential concepts among these clusters are ESG, sustainability (environmental, social), transparency, and performance.

Transparency-related nodes belong to the ESG cluster, and the most influential concepts include several potential areas for improvement in

Table 2 The most relevant clusters and keywords regarding banks' sustainability transparency

Cluster	*Cluster significance, %*	*Nodes*	*Keywords*
Sustainability performance	32.0	23	sustainability; financial; environmental; sustainability reporting; social; improve; financial sector; significant; policy; indicator; insight
ESG transparency	22.0	19	corporate governance; compliance; financial institutions; score; information asymmetry; Europe; EU; standardisation; corporate sustainability
Variables and limits	13.0	25	context; focus; model; conventional; problem; increase; Islamic
Corporate data	9.0	24	business; approach; quantitative; stakeholders; communication

(*Source* InfraNodus)

banks' disclosure: more standardisation and compliance are needed for the mitigation of information asymmetry and communication about corporate sustainability between banks and stakeholders. EU leadership and experience in ESG and sustainability standards-setting and regulation of bank disclosure should be included in further regulatory considerations.

Structural gaps are defined as two meaningful clusters (distinct communities of nodes) in the map that have not connected and may shed light on future ideas and research limitations. The central pairs of clusters identified by their distance and connections by InfraNodus are *sustainability performance* and *ESG transparency*.

The potential implication is a demonstration of the dissonance between the composition of sustainability (TBL) transparency dimensions (economic, environmental, social) and ESG transparency dimensions (environmental, social, and governance). While bank disclosure, compliance, and adherence to different systems of standards and communication with different transparency-enabling stakeholders belong to the "G"

dimension of ESG, environmental and social sustainability performance metrics are predominant in coverage of economic and financial metrics and indicators.

Considering the above evidence, potential future research gaps include:

1. The relevance of both environmental and social dimensions associated with transparency dimensions in the sustainability performance gap;
2. The joint relevance of ESG and transparency dimensions in addressing the governance dimension gap;
3. The gap in selecting and integrating more variables and methodologies;
4. A data bias and data selection gap.

The qualitative description of gaps 1 and 2 focuses on the lack of standard approaches to understanding transparency (first), sustainability (TBL), and ESG dimensions of transparency (second). The main reasons for this gap are:

1. insufficient operability and comparability in different sustainability standards systems and jurisdictions;
2. a large quantity of different country-specific regulations;
3. lack of transparency in commercial-oriented ESG ranking methodologies from rating and informational agencies (e.g., MSCI, S&P Global ESG Scores, Sustainalitics, FTSE Russel, Refinitiv) with respect to their disclosure and explanation of their underlying methodologies, data sources, scores, weights, and ratings.

The above leads to a situation where requirements for transparency and good governance of banks (G dimension) as important financial intermediaries are not linked to standardised indicators (Serafeim et al., 2019) with clear meanings, metrics of sustainability activities, products, and performance (E, S, and Economic dimensions). The gap is also visible in that we observe different types of washing and window dressing in banks' sustainability reporting, increasing the lack of transparency and decreasing trust of stakeholders in banks' sustainability disclosure. To counter these issues, it is essential that banks self-declare and adhere to some sustainability standards (SASB, GRI, TCFD).

To further the development of the theoretical basis of our sustainability transparency understanding, it is not only a matter of synthesising the most popular theories (stakeholder theory, legitimacy theory) with the multi-stakeholder approach. It is also necessary to generate empirical research that allows us to test for these competing theories with the same performance phenomenon in mind. Furthermore, neither the bibliometric analysis nor the brief SLR has addressed related constructs such as informational justice or the assessment of perceptions of an information source's trustworthiness (ability, benevolence, and integrity) (Schnackenberg et al., 2021), although our review has highlighted the relevance of legal and regulatory constructs as part of a greater multi-disciplinary effort that is needed for addressing banks' sustainability transparency. Furthermore, to increase knowledge about the value of different dimensions of transparency relevant to the banking sector and society at large is related to the question of how to meet the information needs of stakeholders while addressing problems such as moral hazards (Hyytinen & Takalo, 2001), legal protection of investors (Longo, 2025), and ownership concentration in corporate governance systems (Shleifer & Vishny, 1997). Also, the concept of double materiality deserves more attention in the above context, from a multi-disciplinary point of view.

We conclude that while the methodology of banks' sustainability disclosure should be aligned with standardised and widely accepted taxonomies, the methodology-related gap identification drawn from the SLR suggests a need for common methods for transparency dimension measurement and transparency indicators development (Horváth & Vaško, 2016; Moraes et al., 2024). Some questions arise out of this discussion:

Who is responsible for tracking and publishing (where) all issues related to bank transparency assessments?

What methodology is best suited to record cases of banks' greenwashing and other types of washing in sustainability reporting?

Can content analysis capture the negative and positive context for washing detection?

What methodologies are best suited to identify compliance, taking into account double materiality for stakeholders, the auditor's level of credibility, and qualitative reporting characteristics.

How can the robustness of data-extraction methods be monitored, and who is responsible for tracking and publishing (where)?

The gap in banks' data credibility and relevance across all transparency dimensions is based on the fact that most of the data for banks' sustainability transparency is self-generated (sustainability reports, websites, chapters in annual reports, etc.). The lack of common methodologies and standards addressing sustainability in banking services is attributed to concerns about data manipulation masking real performances and a potential absence of sustainability culture in banking disclosure (Raut et al., 2017). Another problem is the bank's client data and disclosure credibility and transparency, which require independent external assurance and specific algorithms of banks to monitor their clients' portfolios for ESG compliance. The same challenge occurs for rating agencies' lack of transparency and need for comparability in methodology of the banks' ESG assessment.

5 Conclusions

This chapter provided a mapping of the current scientific landscape on bank sustainability transparency and a review of the transparency dimensions addressed up to this point, their related theoretical frameworks, and an identification of several research gaps.

Bibliometric mapping was first applied via a mixed methods approach covering dynamic, country keywords, topic, cluster, and author analysis on bank sustainability transparency. A brief structured literature review (SLR) provides insights into bank transparency dimensions addressed in the research paper samples covered as part of this bibliometric mapping. The bibliometric analysis and SLR create the basis for brief research gap detection from the perspective of CSR, SDGs, ESG, and TBL. This assessment of research gaps has also shown that other sustainability-related concepts that introduce different ESG and TBL dimensions and pillars, and additional criteria to banks' disclosure, deserve further research attention, particularly in the context of multistakeholder approaches. Research gaps can be seen in ESG transparency dimensions where novel methodologies are needed for tracing bank disclosure, and thereby enhancing data credibility, transparency, and washing mitigation.

A harmonised and standardised understanding of banks' sustainability disclosure in accordance with the most material stakeholder requests and bridging the SDGs funding gap should be incorporated into regulators' initiatives for enhancing transparency in this sector.

Comparability and operability of the existing standards and standards under development are vital for this reason, at the level of standard-setters across countries.

Considering existing taxonomies and evidence, avoiding green- and other types of washing is possible with a clear taxonomy of sustainability activities, financial products and investments, benchmarking of the best practices, and punishments for misstatements in disclosure by regulators and policymakers.

More external verification is needed towards reliability, credibility, and completeness of sustainability data produced by banks across all transparency dimensions. Furthermore, external validation is also needed for methodologies regarding the assessment and ranking from rating agencies, aiming at avoiding greenwashing and other types of washing.

The above demands need to be contextualised into the complexity of regulatory demands and emerging policy initiatives that raise questions regarding their coherence with respect to the relevance of banks' sustainability transparency. For example, the EU's sustainable finance plan, the EU Green Deal, and the desired climate-neutrality transition by 2050 shape a new environment in the EU banking sector, implying changes in the regulatory environment. Taken together, the EU Taxonomy for sustainable activities, Non-financial Reporting Directive (NFRD), the Corporate Sustainability Reporting Directive (CSRD), and the European Sustainability Reporting Standards (ERSR) jointly create the framework for sustainability transparency relevant to the banking sector. However, misleading behaviour by banks such as has been noted, for instance greenwashing on climate and SDGs, gives a clear signal to European regulators and consumers to improve the scope, metrics, and disclosure responsibility of sustainability reporting entities. Under these regulations, supported by the European Banking Authority, EU banks are expected to carry out an annual transparency exercise from this agency. In this context, the Sustainable Financial Disclosure Regulation (SFDR) is a comprehensive regulation on the level of sustainable investment products and entities that banks can use and should be scrutinised accordingly.

Although this chapter has aimed to contribute to mapping the fast-growing scientific landscape on sustainability banking transparency, supported by various tools and techniques of hybrid reviews and software-based bibliometric analysis, several limitations need to be noted. A key limitation of the research is related to the reliance on the Scopus database for the analysis and importing of articles/chapters. Future work also needs

to address and include studies on the enforcement of regulations in the banking sector's sustainability disclosure in pivotal years like 2019 for the EU SFDR, and 2023 for the EU CSRD. More evidence is needed to compare the sustainability transparency dimensions of Islamic, cooperative, and ethically-oriented banks against conventional counterparts, considering differences in ethical norms and values. In doing so, however, it is worth recalling the bigger framing in which sustainability transparency and governance research can and should be placed, namely in a dynamic understanding of ethics based on the core notion of individual freedom. In the words of Claus Dierksmeier, 2016, 117:

> For centuries, ethical theories depended on concepts of human nature. Throughout the ages and across cultures, the understanding of human nature has, however, changed. Shifts in the presumed meaning forced alterations in moral attitudes. … Every attempt to formulate a static economic ethics, once and for all, failed consequently—until it became clear that the solution lies in a dynamic conception of economic ethics premised on the very factor that drives societal and economic change: human freedom. (Dierksmeier, 2016).

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CHAPTER 5

EU Insights on Innovative Entrepreneurship Ecosystems Following Sustainable Development Goals

Oksana Khymych

Abstract Integrating Sustainable Development Goals (SDGs) into entrepreneurial ecosystems is crucial for fostering economic resilience, social equity, and environmental sustainability. This chapter explores the European Union's approach to innovative entrepreneurship within the sustainable development framework, emphasizing best practices, policy mechanisms, and support structures. The research applies the SPAR (Situation, Problem, Action, Result) methodology to analyse the role of public–private partnerships, funding initiatives, and regulatory frameworks in fostering sustainable entrepreneurship. The study highlights the Dutch model as a leading example, demonstrating how strategic government support, strong networks, and an emphasis on circular economy principles and initiatives from universities contribute to a thriving ecosystem. Furthermore, it discusses the applicability of these

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European insights to developing economies, particularly Ukraine. The findings suggest that adopting direct and indirect government interventions, including financial incentives, international collaborations, and knowledge-sharing platforms, can enhance Ukraine's innovation-driven growth. Ukraine can develop a resilient and competitive entrepreneurial landscape aligned with global sustainability goals by fostering sustainable business models and encouraging ecosystem-based cooperation.

Keywords Sustainable development goals · Ecosystem · Innovative entrepreneurship · Startups · Sustainable development · Policy recommendations

1 Introduction

Current global challenges, such as preserving the environment for future generations in the face of significant climate threats, highlight the critical need to integrate sustainable development principles into all aspects of public life. In response to these challenges, the international community has set ambitious Sustainable Development Goals (SDGs) in the 2030 Agenda for Sustainable Development (United Nations, General Assembly, 2015), adopted in 2015. This document includes key areas for addressing poverty, climate change, and sustainable economic growth.

Strategies for adaptation and ways of implementing the SDGs in the European context are presented in the European Commission's Agenda "Towards a Sustainable Europe by 2030" (European Commission, 2019). The document highlights the importance of partnerships and collaboration between governments, institutions, international organisations, civil society, and businesses in achieving sustainable development. It demonstrates the critical role of the private sector in this process. It recognises the key role of companies in promoting the social and solidarity-based economy, mainly through their contribution to sustainable development.

Innovative entrepreneurship is expected to build its business models on the principles of the SDGs, focusing on implementing sustainable practices and technologies that support the long-term well-being of society (Cordova & Celone, 2019; European Commission, 2020). However, for entrepreneurs, the SDGs create both challenges and opportunities. Thus, on the one hand, entrepreneurs are increasingly faced with the

requirements to align their business processes with the SDGs, demonstrating social and environmental responsibility (Alias & Eguren, 2024; Schaltegger & Burritt, 2018), and the associated challenges, i.e., limited access to finance, regulatory barriers, insufficient infrastructure, and lack of institutional support, which complicates the expansion of the scale of innovations (Audretsch et al., 2021; European Commission, 2018). On the other hand, entrepreneurs who integrate the SDGs into their business strategies gain access to new segments of consumers who increasingly value green goods and services (Haardt et al., 2019; Islam et al., 2023). However, any successful businesses partnership requires trust, and forming such trust involves an agreement between commitment to shared goals and specific actions to achieve them.

In addition, achieving the SDGs requires harmonising sustainable development's environmental, economic, and social aspects. For example, programmes that aim to contribute to this are the European Green Deal (Fetting, 2020) which aims to make the EU climate neutral by 2050, and UN initiatives such as the UN Global Compact, which motivate businesses to focus on sustainability and develop a green economy. However, there are significant differences in the pace of implementation of these goals in different countries. For example, EU countries such as Sweden, Norway, Finland, the Netherlands, and Germany demonstrate leadership in implementing sustainable development strategies. These countries actively promote clean technologies and integrate circular economy principles. In contrast, developing countries, including Ukraine, are only beginning to develop effective mechanisms to achieve these goals (EU4Climate, n.d.).

The post-war reconstruction of Ukraine will create unique opportunities for reforming economic and environmental policies according to European standards. The Russian war on Ukraine war has caused significant infrastructure destruction, leading to a substantial accumulation of waste, including technical debris and damaged buildings. Reconstruction will provide opportunities to direct the country on the path of sustainable development. Thus, the trajectory of Ukraine's development includes harmonising legislation with EU norms and compliance with the SDGs, facilitating the transition to a green, digital, and inclusive economy. Considering current challenges and barriers, developing a roadmap for implementing the SDGs in Ukraine is essential (Stavytskyy &

Kharlamova, 2024). In light of this, innovative entrepreneurship is necessary for achieving long-term sustainability in economic growth (Baumol, 2010).

The chapter aims to analyse the successful practices of leading countries in implementing sustainable development, identify key tools that can be adapted to the specifics of developing countries, and develop recommendations for Ukraine in the context of post-war recovery. Forming a sustainable development course emphasising innovation will ensure sustainable economic growth, harmonious development of society, and preservation of natural resources for future generations.

The SPAR (Situation, Problem, Action, Result) methodology (Launder & Penney, 2023) is used for structured analysis. This approach makes it possible to determine the current situation in a structured way, identify existing problems, define specific actions to be taken, and predict results. Additionally, a comprehensive literature review is conducted, providing tools from European experiences in achieving the SDGs and serving as a basis for analysis.

2 Current Situation: Innovative Entrepreneurship in Europe Towards Sustainable Development

The countries of the European Union are creating a favourable ecosystem for innovative entrepreneurship and startups thanks to their coordinated cooperation, shared vision, strong support network, access to financing, highly qualified personnel and talents, favourable policies, and orientation towards sustainable development and support (Cooke, 2016). Sustainable development problems often require creative and innovative solutions. Also, the European model of sustainable development of innovative entrepreneurship is based on an integrated approach that combines economic, environmental, and social aspects (Imaz & Eizagirre, 2020). The financial aspect is focused on the development of innovations, support for small and medium-sized enterprises, creation of new jobs, and ensuring the competitiveness of the European economy. In the context of the social dimension, the focus is on ensuring social justice, supporting inclusiveness, developing human capital, and promoting equality of opportunity. Therefore, increasingly, more enterprises are creating environmental and social value in today's realities.

In the scientific literature, there is a widespread concept of sustainable entrepreneurship, that is, one that focuses on preserving nature and supporting life and the community in search of foreseeable opportunities for economic and non-economic benefits (Shepherd & Patzelt, 2011). The conditions for strengthening and supporting the emergence of a sustainable entrepreneurial ecosystem, where ecosystem participants interact, are the focus of participants in sustainable development, the identification of sustainable opportunities and accumulation of resources, joint innovations on the path to sustainable development, and the formation of consumer markets for environmentally friendly products (Batrakoulis et al., 2023; DiVito & Ingen-Housz, 2021; Idowu et al., 2020).

Forming a favourable ecosystem for innovative entrepreneurship which considers sustainable development is an essential qualitative interaction of all its participants, i.e., enterprises, industrial associations, universities, and the general public. Such an ecosystem is built with the features of multi-level, multilateral, multi-node, multi-modal systems with certain features of coexistence, joint development, joint spatialisation, and joint competition. In this systems thinking, innovation has expanded from the linear university-industry model to the current model of cooperation, which includes university-industry-government-civil society (Carayannis & Campbell, 2006). In this light, where industry functions as a production source, the government provides regulation, financial incentives for entrepreneurship, and stability by enforcing the rules of the ecosystem, as the example of the EU's Smart Specialisation strategy demonstrates (Ghinoi et al., 2021). Furthermore, universities are frequently suppliers of innovative knowledge and technologies that help to develop the innovative entrepreneurial ecosystem (Ghinoi et al., 2024). It is worth adding that the triple helix theory, which characterises the participants in the ecosystem and explores the nonlinear relationship between universities, industry, and government to create and exchange knowledge, has been expanded to include the public, media, culture, and other intermediary organisations, thereby forming the quadruple helix model (Etzkowitz, 2003).

The features of the model of sustainable development of innovative entrepreneurship Europe are the dissemination of the principles of the circular economy, i.e., resource reuse and waste reduction as key components of the model, which is becoming increasingly widespread (Eyo-Udo et al., 2024). Additionally, it is essential to activate public–private partnerships that bring together government agencies, the private sector, and

academic institutions to collaborate to achieve common goals within this ecosystem of circular economy (Ghinoi et al., 2020).

Such an integrated approach provides a comprehensive solution to problems related to sustainable development and creates conditions for integrating innovations into all areas of economic activity. In addition, the European experience is unique in its diversity of approaches to the development of innovative entrepreneurship, covering such aspects as financial sustainability, the transition to a "green" economy, the development of social responsibility of business, the digitalisation of the economy and support for innovations in various sectors. The introduction of tools for the sustainable development of innovative entrepreneurship, such as the development of "green" technologies, the development of the renewable energy sector, support for local manufacturers, the stimulation of startups in the field of digital and environmental innovations, as well as the creation of platforms for cooperation between business, universities, and government agencies, have become key factors that have ensured the sustainable development of innovative entrepreneurship in many European countries (Szopik-Depczyńska et al., 2018).

European programmes to support innovative entrepreneurship are key tools for achieving the goals of sustainable development, innovative transformation, and economic competitiveness. Programmes such as Horizon Europe, LIFE, EIT, EU's S3 Smart Specialisation, the EU's Green Deal, the Clean Industrial Deal, among others, stimulate the implementation of innovative technologies aimed at achieving these goals. European programmes to support innovative entrepreneurship in the context of sustainable development are listed in Table 1.

The most extensive framework programme of the European Union is Horizon Europe (European Commission, n.d.-c), which focuses on promoting research and innovation in line with the Sustainable Development Goals. The programme budget is €95.5 billion for 2021–2027. The main areas of support for the programme are the development of innovative solutions aimed at achieving the Sustainable Development Goals, particularly in renewable energy, climate neutrality, and the circular economy (European Commission, 2019). Digital transformation, the integration of artificial intelligence, the use of big data, and the development of other digital solutions to reduce the negative environmental impact and increase the efficiency of using natural resources are the focus of the Digital Europe programme (European Commission, n.d.-b). Like the COSME programme (European Commission, n.d.-a), it

Table 1 European programmes to support innovative entrepreneurship in the context of sustainable development

Programme name	*Main areas of support*	*Focus in the context of sustainable development*	*Expected results/ Areas for support*
Horizon Europe	Financial support for interdisciplinary research, promoting the development of innovative startups, and partnerships between business and scientific institutions	Developing a circular economy, focusing on reducing the carbon footprint and achieving climate resilience	Strengthening the "green" transformation of industry, developing new technologies to ensure sustainable development, and contributing to reducing carbon emissions
Digital Europe	Supporting research on the implementation of artificial intelligence, the use of big databases, blockchain technologies, and the Internet of Things (IoT) in the activities of small and medium-sized businesses	Promoting increased production efficiency, ensuring resource optimisation, and reducing the negative impact of business on the environment	Stimulating digitalisation processes, ensuring digital transformation, and introducing innovative technologies into business processes for sustainable development
COSME	Advisory support, providing access to new markets for small and medium-sized enterprises, and financing in the form of grant aid	Promoting the development of new technologies, supporting entrepreneurship that operates, considering the principles of sustainable development, and supporting business models	Promoting innovation with a focus on ecology and environmental protection and increasing the competitiveness of small and medium-sized enterprises
EIC Accelerator	Financial support in the form of grants of up to €2.5 million and investments of up to €15 million for startup projects	Support for innovative medical technologies, "green" innovations, digitalisation, and a transition to an economy that focuses on climate protection	Startups develop innovative ideas by considering environmental protection goals, and innovations are integrated to promote sustainable entrepreneurship

(continued)

Table 1 (continued)

Programme name	*Main areas of support*	*Focus in the context of sustainable development*	*Expected results/ Areas for support*
LIFE	Focus on investments in renewable energy sources, the development of technologies for reusing resources (water), and support for the creation of materials that decompose naturally	Promoting the reduction of the use of non-renewable resources, conservation of natural resources, and ensuring enterprises' environmental sustainability	Entrepreneurship development considers the principles of sustainable development and the preservation of biodiversity
EU4Climate	Support for developing renewable energy and legislation in sustainable development and energy efficiency	Promoting adaptation to climate change and reducing greenhouse gas emissions	Support businesses working towards innovation to preserve the environment and energy efficiency
Green Deal Call	Financial support is needed for the development and innovation of sustainable transport, clean energy, and industry decarbonisation	Achieving climate neutrality by 2050 and promoting the protection of ecosystems	Support for startups and small and medium-sized businesses in the direction of innovation, focusing on their environmental friendliness

Sources Author's compilation, based on a theoretical framework based on sources (EU4Climate, n.d.; European Climate, Infrastructure and Environment Executive Agency [CINEA], n.d.; European Commission, n.d.-a, n.d.-b; European Innovation Council, n.d.; Fetting, 2020)

focuses on increasing the competitiveness of small and medium-sized enterprises by helping entrepreneurs create environmentally friendly business models and helping them enter new markets. This programme supports innovative startups through training and advice and provides them with financial support through grants. The EIC Accelerator (European Innovation Council, n.d.) aims to support promising startups with ideas in medical innovations, "green" innovations, digitalisation, and transition to an economy with a focus on climate protection. The accelerator provides grant support of up to €2.5 million and investments of up to €15 million for developing innovative projects that meet the principles of sustainable development. The next initiative, LIFE (European

Climate, Infrastructure and Environment Executive Agency [CINEA], n.d.), is a specialised EU programme, and its goal is to promote environmental protection and support climate initiatives in the development of technologies for water reuse, the creation of biodegradable materials, and renewable energy. It supports enterprises operating in sustainable production, energy, and conservation of natural resources. The focus of the EU4Climate programme (EU4Climate, n.d.) is to support the EU's neighbouring countries, including Ukraine, in developing legislative acts aimed at reducing greenhouse gas emissions, developing renewable energy and adapting to climate change, and supporting the implementation of climate reforms. The Green Deal Call programme (Fetting, 2020) is essential in this regard, as it supports the European course of sustainable development by financing innovative solutions in clean energy, sustainable transport, and decarbonisation of industry. Implementing such initiatives allows the European Union countries to strengthen the economy, increase the competitiveness of enterprises in the global market, and ensure their compliance with the Sustainable Development Goals. Because of the above, the study of European experience in activating innovative entrepreneurship by creating specialised programmes that contribute to implementing sustainable development goals is significant for developing economies, particularly Ukraine. In particular, the adaptation and development of such programmes with appropriate funding to support the environmental focus of business will create an effective mechanism for developing innovative entrepreneurship in line with sustainable development goals. This will ensure economic sustainability, social justice, and environmental balance in the long term. The successful implementation of such initiatives will contribute to integrating Ukraine into the European space of sustainable development, which is in line with the country's strategic course.

Analysis of the Dutch Innovative Ecosystem and Its Alignment with SDGs

The Netherlands has long been recognised as a global leader in creating a thriving and sustainable startup ecosystem (Barbosa, 2024). The Dutch government has set ambitious sustainability goals, such as becoming fully circular by 2050 and reducing carbon emissions by 49% by 2030. Startups that contribute to this through innovation in clean energy, waste reduction, circular economy models, and sustainable agriculture are often

supported through public–private partnerships and dedicated funding initiatives (Tvaronavičienė, 2024). This alignment with broader national goals improves the visibility and support for sustainable startups. This approach has created an entrepreneurial environment in the country that is not only economically dynamic but also sustainable (Charalampos et al., 2024). While the situation in the Netherlands differs from that in developing economies, particularly Ukraine, this experience in creating a sustainable startup ecosystem can provide valuable information for future practical policy actions.

The key factors of the Netherlands' success in creating a favourable business environment for the development of innovative entrepreneurship with an emphasis on sustainable development are strategic location and networks, and a well-developed ecosystem, access to financial resources, talented entrepreneurs and highly qualified employees, significant government support, orientation towards sustainable development and environmental impact, highly developed entrepreneurial culture, high level of technological development of society, and close cooperation between public, private, and academic institutions (DiVito & Ingen-Housz, 2021; Genome, 2024). The favourable geographical location provides easy access for the country's enterprises to key European markets. This promotes international collaboration and easy access to human capital, talent, investors, and new customers. The next factor reflects the developed network of contacts, networking, and a well-developed ecosystem of innovative entrepreneurship, which includes a network of incubators, accelerators, and co-working centres. Startups in such institutions receive all the necessary resources, such as financing, office space, mentoring, mentoring, and legal assistance. For example, programmes such as TechLeap.NL and StartupAmsterdam significantly impact the development of innovative ideas and startups in the early stages, helping them scale and develop effectively in the market. The Netherlands has a growing number of "unicorns" and "premature unicorns" (Booking.com, Hotmart, Mollie, Picnic, Bunq atc.), which reflects the global competitiveness of the ecosystem. The concentration of technology hubs in cities such as Amsterdam and Rotterdam allows for the exchange of ideas and resources and promotes continuous innovation and technology transfer. Access to financial resources is critical in developing a favourable environment for startups in the Netherlands. It is the wide range of opportunities for obtaining project financing at different stages, including venture capital investments and assistance from

angel investors. The country's policy aims to motivate investment in innovative entrepreneurship through various public–private partnerships that provide financial support and the opportunity to test innovative solutions in actual conditions. On the other hand, talented entrepreneurs and highly qualified employees enhance the development of entrepreneurship in the Netherlands.

The country's high-quality education system ensures the formation of entrepreneurial-oriented graduates. The presence of world-class universities and research institutions gives startups access to the skilled workforce and knowledge needed for growth and innovation. At the state level, the country's government has declared its support for innovative entrepreneurship with a focus on sustainable development. Such support is manifested by simplifying the regulatory system and providing startup tax incentives. Support for entrepreneurship, for example, occurs through programmes such as the Innovation Box (n.d.). This initiative offers preferential tax rates on profits generated from innovation, making the development of new technologies and products financially appealing. The Netherlands allocates significant funding to support the development of sustainable entrepreneurship. Many Dutch startups are focused on creating value through sustainable and socially responsible business models. This focus on sustainable development helps the ecosystem to remain resilient to global challenges and have a significant long-term perspective.

Reusing resources, minimising waste, and optimising production processes, which manifest the circular economy, are key elements of the Dutch sustainable development strategy (Government of the Netherlands, n.d.). Companies are actively implementing business models that integrate green technologies, such as renewable energy, smart grids, and waste recycling technologies. The Dutch government provides significant financial support for such projects, supporting the ecological direction of development.

It is impossible not to mention such a factor as the culture of entrepreneurship. The culture of entrepreneurship and innovation is deeply rooted in Dutch life and is developing. Entrepreneurs are characterised by a willingness to take risks, test new ideas, and collaborate across sectors. This culture fosters trust, openness, and collaboration, which creates favourable conditions for startups to test and scale new solutions quickly (Ministry of Economic Affairs and Climate Policy of

the Netherlands, n.d.). Also, the active digitalisation of business activities through artificial intelligence, the Internet of Things (IoT), and blockchain, makes it possible to increase the efficiency of business activities. The country's government supports digitalisation through national strategies, such as the Digital Netherlands Agenda (Ministry of Economic Affairs and Climate Policy of the Netherlands, n.d.).

Public, private, and academic cooperation is essential in building an effective innovation ecosystem in the Netherlands. The government supports the association of researchers, entrepreneurs, and investors by creating favourable conditions for innovation. For example, the programme Top Sectors Policy, which has been operating since 2011 (Government of the Netherlands, n.d.), brings together academic institutions, notably Delft University of Technology and Wageningen University, to actively collaborate with business, providing access to advanced research and technologies. The private sector, in turn, participates in partnerships through co-financing programmes and accelerators. This triangle of cooperation allows for innovation focused on achieving the SDGs and ensures the country's sustainable development in the long term.

3 Problem: Challenges in Innovative Entrepreneurship Ecosystems in Developing Economies (the Case of Ukraine)

According to the Global Startup Ecosystem Index 2024 (Genome, 2024), Ukraine has returned to its top ten in Eastern Europe in 2023. Ukraine's positive dynamics continue for the second year in a row: the country rose three places to 46th place, recovering from a sharp drop of 16 in 2022. In Eastern Europe, Ukraine climbed three places to 9th place, slightly above Latvia (10th) and Croatia (11th) in the top ten. Ukraine ranks 25th in the world ranking for the overall impact of global startup events on the ecosystem. Ukraine has six cities in the Top 1000. Some examples of successful and well-known startups that have emerged from Ukraine include People.ai, Grammarly, Gitlab, and Ahrefs, which have a global consumer base. One of the reasons for Ukraine's success is the talent of its developers, who are sought after by many foreign companies, both remotely and in local development centres.

An innovative entrepreneurship ecosystem already existed in the Ukraine before the Russian war on Ukraine. In 2019, the Ukrainian

Startup Fund (n.d.) was established, and a Strategic Vision for 2025 was developed. The strategy focused on supporting startups at early stages by financing and facilitating access to support services and strengthening globally competitive incubation and acceleration programmes. More than 200 startups have benefited from this fund. The strategy also includes facilitating access to expertise, financing, and resources. Ukraine's first innovation park, Unit City Accelerator (n.d.), complements these national initiatives by offering an acceleration programme that effectively connects entrepreneurs and investors with business growth and development resources. That shows the strong support of startups and the importance of their role in restoring the Ukrainian economy. These initiatives indicate that the innovation ecosystem in Ukraine is gradually taking shape, but for its effective operation, it is necessary to eliminate several institutional barriers. Despite successful examples of support for startups by the state and international programmes, the innovation ecosystem faces several problems that limit its further development (Rerrer-Balas et al., 2008). Identifying the key problems of the ecosystems of developing economies is the first step in shaping effective changes to implement reforms aimed at enhancing innovative development, taking into accountthe goals of sustainable development in developing countries. To ensure sustainable economic growth and the integration of Ukrainian startups into the global market, it is necessary to overcome key structural problems hindering innovative business expansion. However, the war in Ukraine has had devastating consequences for entrepreneurship, and rebuilding the country's economy will be daunting. Using the example of Ukraine, we will consider challenges brought on by war.

An essential innovative entrepreneurship ecosystem existed in Ukraine before the war, but it is now underdeveloped. One issue is the absence of a clearly expressed state strategy for supporting innovative business, which has become the reason for insufficient funding of initiatives focused on sustainable development. There is also a lack of financial resources at all levels: state, regional, and business environment. Entrepreneurs need access to venture capital to test and scale environmentally and socially-oriented innovations.

An additional challenge is the personnel shortage caused by migration and population mobilisation because of the war. This problem is typical for all countries in a state of military conflict and complicates business growth. Restoring human resources requires strategic training programmes and the return of specialists.

The regulatory environment also needs to be improved. Existing barriers, such as ineffective legislation, a high tax load, and bureaucracy prevent the development of innovative businesses, and low transparency of legislation discouragesinvestors. Ensuring transparency in the market, effective protection of intellectual property, and combating corruption are critical conditions for attracting investments in sustainable development. Further integration with the EU would likely support the removal of these barriers and thereby attract investor capital.

Another disadvantage is the weak network of interaction between businesses, the state, and scientific institutions, as well as the insufficient level of development of incubators and accelerators. An essential factor remains limited access to global markets, which complicates the international expansion of Ukrainian startups. The war stimulated the development of entrepreneurship in defence, security, and medicine, but for effective scaling, startups need international integration and state support.

An insufficient culture of venture investment and poor awareness of financial mechanisms limit startup development opportunities in the domestic market. In response to these challenges, the Ukraine Startup Fund supports projects aimed at solving military tasks and post-war modernisation.

All of these factors influence innovative entrepreneurship in Ukraine with a focus on sustainability.

4 Action: Strategies and Best Practices from the European Innovative Entrepreneurship Ecosystem

Previous work has identified six mechanisms to improve institutional conditions for sustainable entrepreneurship: prioritising resources, improving skills, creating a sustainable market, network exchange, joint reproduction, and impact assessment (Watson et al., 2023). Such mechanisms enable the achievement of three policy goals for sustainable entrepreneurship: creating an enterprise, transforming the system, and reorienting the impact. Optimising resource prioritisation involves using policy mechanisms that direct financial and other resources to support sustainable, innovative enterprises, stimulating their development and long-term effectiveness. State initiatives aimed at developing competencies by training entrepreneurs, disseminating values, promoting behavioral

models, and fostering a culture that emphasizes the importance of sustainable business approaches are crucial. It is also essential to have a market for sustainable goods; all types of state measures aimed at popularising the values of sustainable development and the importance of choosing such goods will create a consumer market and push entrepreneurs to take into account the interests of consumers. The following mechanisms of government intervention are intended to create a network of exchanges similar to the S3 Smart Specialisation initiative (Ghinoi et al., 2020), i.e., environments that facilitate information exchange, technology transfer, the creation of associations, and the promotion of partnerships and mutual support for the implementation of sustainable innovations. The focus on co-production enables the policy mechanism to improve, disseminate, and combine entrepreneurial innovations with a triple-bottom-line effect (economic, social, environmental), which allows for a transformation of business ecosystems and enhancement of their cumulative impact. The most complex part of the mechanism of government intervention is evaluating the implemented initiatives, ensuring their systematic monitoring and measurement, and optimising the social, economic, and environmental impact of sustainable enterprises.

Direct Government Interventions

Of particular note are mechanisms of state regulation that combine institutional support, financial instruments, and regulatory and legal support with innovative entrepreneurship interests to implement sustainable development principles. Direct state support provides companies with the necessary resources and activities to develop activities considering sustainable development goals, i.e., innovative solutions, the introduction of new technologies, and the development of cooperation with partners (Jugend et al., 2018).

Strong state support policies are necessary, but more needs to be done to promote sustainable entrepreneurship. Governments can help companies implement sustainable practices through various support mechanisms. However, the business system involves stakeholders who must be incentivised to support sustainable practices. All participants in such a chain, from producers to consumers, bear their responsibility and influence other aspects of sustainable, innovative entrepreneurship. National support mechanisms can help achieve these sustainable outcomes (Barbosa, 2024).

With the introduction of such direct regulatory instruments as tax incentives, financial subsidies, or penalties, pressure is put on businesses to ensure their transparency in the field of carbon emissions, as the example of the EU's CBAM shows (Smith et al., 2024). When such direct regulatory instruments are introduced, companies try to adapt with minimal change to their operations. Thus, governments create regulatory conditions for innovative enterprises to respond to such challenges using their resources and capabilities. These include managing external relations with suppliers, developing and building strong ethical relationships with customers, improving the product with sustainability in mind and by finding innovative solutions, and collaborating and cooperating with various stakeholders in the ecosystem. For example, the SDGs are a framework for sustainability reporting that provides a set of standards for businesses and other entities to measure, report, and demonstrate accountability for their impacts on the environment, economy, and people. It provides a standardised set of indicators to assess their level of sustainability, covering diverse aspects such as emissions, waste, biodiversity, equality, diversity, tax, and health and safety, enabling transparency to stakeholders (Adams et al., 2022; Global Reporting Initiative, n.d.).

Indirect Government Support: Networking Facilitation, University Initiatives, and Research Collaborations

Government support for innovative entrepreneurship focusing on sustainable development can also be provided indirectly through promotion, networking assistance, building inter-organisational networks, and providing financial guarantees. Such support can be very effective and efficient for developing economies to be competitive and motivate companies to expand their markets (Ganlin et al., 2021; Rerrer-Balas et al., 2008).

Stakeholders in sustainable entrepreneurship are diverse actors, such as university management, governments, alumni, entrepreneurship centres, venture capitalists and incubators, accelerators, and NGOs (Karahan, 2024). It is essential to add that sustainable development goals can act as a crucial institutional support with new governance mechanisms, reporting approaches, and culture.

Implementing the principles of sustainable development in university activities is also a crucial component of the European strategy for achieving the SDG goals. For example, the conceptual framework proposed by Breuer et al. (2018) illustrates the support for creating

new sustainable enterprises as a dynamic interaction between research, education, and knowledge transfer activities, all within a higher education institution (HEI) framework that aligns strategies, structures, and culture. The authors (Breuer et al., 2018) highlight several sustainable entrepreneurship university (SEU) initiatives in their case study of four HEIs, including a fellowship programme in collaboration with social enterprises, a grant programme dedicated to social entrepreneurship research, and student-led "eco-entrepreneurship" projects.

Karahan (2024) identifies three levels—Internal (individual and project level), Internal (organisational level), and External (ecosystem level)—with activators and barriers at the corresponding levels in sustainability transformations of university business incubators in Germany. The main activators are individual-level skills and competencies, sustainability-related education offerings, university sustainability strategy, including targets, visions, and priorities, and a dedicated unit that governs sustainability transformations at the organisational level. Further activators include media attention for sustainability, student interest and demand, government programmes and regulation, collaboration and partnerships with externals, public and private sector funding, and demand for talent with sustainability capabilities at the ecosystem level.

Three main mechanisms of external stakeholders' influence on transformation in sustainable development in higher education are distinguished by Tiemann et al. (2018). First, funding activities related to sustainability, such as a new offer of innovative educational programmes in the field of sustainability or collaborative research in the environment becomes a catalyst for the transformation of sustainable development. Such funding opportunities provide universities with the resources to work on projects related to sustainable development. The second external factor is changes in policies related to sustainable development. For example, compliance with sustainable development standards during the audit of higher education institutions. Such measures inevitably lead to the implementation of sustainable development in the management systems of higher education institutions to ensure compliance. Third, public awareness of sustainable development is another factor that contributes to such sustainable development. This factor increases students' demand for new educational content on sustainable development and the interest of entrepreneurship in partnerships between industry and academia towards sustainable development (Tiemann et al., 2018).

Table 2 Approaches to the transformation of entrepreneurial universities towards sustainability

The first approach is "bottom-up"		*The second approach is "top-down"*	
Stage	*Description of the stage*	*Stage*	*Description of the stage*
1	Independent participation of university employees in various sustainable development projects	1	Formation of a comprehensive sustainable development strategy at the university
2	Communication between independent participants in various sustainable development projects, discussion, and exchange of ideas	2	Dissemination of the mission and goals of sustainable development in secondary universities
3	Discussion and formation of a particular vision of a single sustainable development strategy at the university management level	3	Formation of a particular unit or distribution of responsibilities, responsible persons, and an implementation plan
4	Stage of implementation of the strategy plan and control of its implementation	4	Implementation of specific actions, dissemination of sustainable development ideas among partners and other stakeholders

Sources Author's compilation, based on sources (Karahan, 2024; Velazquez et al., 2006; Verhulst & Lambrechts, 2015; Wageningen University & Research, n.d.; Wakkee et al., 2019)

The literature distinguishes two approaches to transforming entrepreneurial universities towards sustainability (Table 2).

Examples from the Netherlands and Other EU Countries Showcasing Success

Initiatives aimed at promoting sustainable entrepreneurship, which are implemented in universities in the Netherlands, are of considerable interest in the context of the development of the innovation ecosystem. These programmes serve as an example of integrating all the SDGs into education, research, and entrepreneurship. The experience of Dutch universities could be adapted by countries that seek to create sustainable conditions for the development of innovative entrepreneurship, taking into account global challenges.

Many research initiatives and educational programmes have been implemented by Windesheim University of Applied Sciences (Windesheim University of Applied Sciences, n.d.), aimed at developing sustainable entrepreneurship. For example, projects such as the "Smart Industry Fieldlab" involve the work of a research group in polymer engineering on energy saving, sustainable use of raw materials, and recycling. Within the framework of the "CleanTech Regio" project, the university cooperates with regional partners such as Oost NL. This cooperation is aimed at innovations in clean energy, digitalisation, and circular economy.

VU Amsterdam (VU) is also actively developing sustainable entrepreneurship through programmes such as the "Amsterdam Sustainability Institute" (ASI) (n.d.). This programme aims to promote the integration of sustainable development into research, education, and innovation. The "VU StartHub" (Vrije Universiteit Amsterdam, n.d.) operates within the VU, which supports startups in clean energy, green economy, and digital innovation. This assistance is implemented by providing space and premises for work, mentoring support, access to tools for developing sustainable businesses, and a network of investors.

Another interesting example is the activities of Wageningen University & Research (WUR) (Wageningen University & Research, n.d.), a world leader in agriculture and food sciences. Implementing innovative agriculture practices, which are the goals of university programmes such as "Food Valley" and "Sustainable Agri-Food Systems," helps develop ecological fertilisers, vertical farming, and apply artificial intelligence in agricultural production. It is also important to note the functioning of a platform called StartHub Wageningen to support students and young researchers in creating innovative startups focused on sustainable development. This hub has a specialised programme, "Green Startups," which helps young entrepreneurs develop products and services in biotechnology, renewable energy sources, and sustainable agriculture.

Erasmus University provides educational courses and business development support focusing on economic sustainability, social responsibility, and inclusion within the framework of the "Erasmus Centre for Entrepreneurship" programme (Erasmus Centre for Entrepreneurship, n.d.). This university's programmes focus on research in social entrepreneurship and sustainable finance, economic sustainability, social responsibility of business, and inclusion.

The issue of technical and technological solutions for sustainable development is the subject of research at TU Delft (n.d.). Specifically, through work on developing a circular economy, creating environmentally friendly materials, renewable energy sources, and innovative transport systems. For example, the TU Delft "Circular Built Environment" (TU Delft, n.d.) programme focuses on developing environmentally friendly technologies in building materials and innovative architectural solutions. The problems of renewable energy sources and their integration into modern urban systems are investigated by the "Green Energy Lab."

The University of Helsinki, in collaboration with government and its funding programmes ("Business Finland") and various SDG-focused thinktanks (e.g., SITRA), not only provides courses on sustainable entrepreneurship, and connects sustainability-focused researchers through a cross-disciplinary network (Helsinki Institute of Sustainability Science, HELSUS), but also has multiple incubators at its various campuses, to specifically cater to different disciplines (e.g., Viikki Food Design Factory; Nexus incubator). Finland also hosts one of Europe's largest annual startup-event, SLUSH.

Implementing such initiatives as highlighted above demonstrates potentially successful practices of interdisciplinary approaches and partnerships between academic institutions, businesses, and regional authorities. The study and implementation of such programmes can strengthen innovation receptivity, support environmental and economic sustainability, and achieve sustainable development for developing countries, particularly Ukraine.

5 Conclusions: Impacts and Outcomes of Effective Ecosystem Development

The development of innovative entrepreneurship, with the SDGs at its core, has the potential to contribute to economic growth, social development, and environmental sustainability. The formation of an effective entrepreneurial ecosystem can occur through the implementation of sustainable development strategies, such as green financing, innovative policy mechanisms, and acceleration programmes, as the above European experiences demonstrate. For emerging economies, particularly Ukraine, implementing such mechanisms and instruments can become a key tool

for economic transformation and increase the competitiveness of startups at the global level. International cooperation between governments, scientific institutions, and the business environment is crucial to strengthening the institutional capacity of the ecosystem. Thus, an innovative entrepreneurship ecosystem based on EU approaches and experiences towards implementing sustainable development goals could become the basis for global changes, adapted to the local conditions of developing countries (Etzkowitz, 2003; Stavytskyy & Kharlamova, 2024).

Therefore, based on the above research examples, we could form categories and recommendations to improve conditions for activating sustainable, innovative entrepreneurship for countries with developing economies. This is summarised in Table 3 by focusing on the Netherlands' experiences.

In summary, this chapter highlights the importance and potential of integrating the SDGs into entrepreneurial ecosystems. By adopting EU best practices, Ukraine could enhance innovation capacity and performance, attract investment, and foster sustainable economic growth. Strengthening national and supra-institutional frameworks and international collaboration will be key to developing a resilient and sustainability-oriented business environment.

Table 3 Tools and practices in the Netherlands for activating sustainable, innovative entrepreneurship in countries with developing economies

Category	*The Netherlands' initiatives*	*Recommendations for Ukraine*
Policy and government support	– Created a startup visa programme to attract international entrepreneurs – Introduced tax incentives (for example, the "Innovation Box" [n.d.]) – Launched initiatives to provide loans and guarantees for startups expanding internationally (for example, the Dutch Good Growth Fund (DGGF) [n.d.])	– Inquire about the conditions for foreign nationals who are prepared to launch a startup project, i.e., introduce startup visa programmes to attract international talent and investors – Offer tax incentives for sustainability-focused startups – Create a dedicated fund or guarantee programme for startups expanding regionally
Venture funding and access to capital	– The Dutch venture capital market supports startups with early-stage funding – Public–private venture funds help de-risk innovation-driven enterprises (for example, the DVI [n.d.])	– Develop initiatives with public–private venture funds to support high-potential startups – Introduce tax incentives for venture capital and angel investments in innovation-driven businesses – Establish funding programmes for startups and collaborate with international financial institutions
Incubators and accelerators networking	– Established incubators and accelerators such as Rockstart (n.d.) and Yes!Delft (n.d.), which provides mentorship, funding, and business development support – Focused on high-growth sectors (tech, healthcare, and sustainability)	– Establish incubators and accelerators focusing on key economic sectors such as the military sphere, agri-tech, clean energy, and IT – Use public–private partnerships to finance and manage these programmes

(continued)

Table 3 (continued)

Category	*The Netherlands' initiatives*	*Recommendations for Ukraine*
Collaboration between universities, research institutes, and startups	– Integrated academic institutions and research centres with the entrepreneurial ecosystem – Supported by government-funded initiatives (for example, Organisation for Scientific Research (NWO) (n.d.)	– Strengthen links between universities and startups by establishing tech transfer offices in academic institutions – Promote joint R&D projects funded by government and international donors
Sustainability-focused business models	– Integrated sustainability into the entrepreneurial landscape through access to green financing and support from impact investors – Incubators like Impact Hub Amsterdam (n.d.) focus on sustainability and social impact	– Create sustainability-focused funds and grant programmes for startups in environmental tech, clean energy, and circular economy models – Offer tax rebates and subsidies to incentivise green innovation
International partnerships and market expansion	– International partnerships and programmes facilitating global market access – International startup competitions	– Forge stronger international partnerships by participating in global startup competitions and conferences – Build links with established ecosystems in Europe and beyond, following models like Startup Europe

Sources author's compilation, based on sources (Dutch Good Growth Fund, n.d.; Dutch Venture Initiative, n.d.; Impact Hub Amsterdam, n.d.; Innovation Box, n.d.; Netherlands Organization for Scientific Research, n.d.; Rockstart, n.d.)

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CHAPTER 6

Barriers to Progress: How Geopolitical Risks Affect the EU's SDG Agenda

Ruslana Kuzina and Bodo E. Steiner

Abstract Geopolitical risks present a significant challenge to achieving the Sustainable Development Goals (SDGs) in the European Union, disrupting economic stability, environmental sustainability, and social progress. This chapter examines how geopolitical conflicts reshape corporate sustainability efforts by creating barriers at the environmental, economic, and social levels. Using the Triple Bottom Line (TBL) approach, which integrates environmental, social and economic dimensions, the research explores how companies are managing these disruptions while maintaining their sustainability commitments. Geopolitical instability exacerbates financial uncertainty, disrupts supply chains and

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weakens regulatory frameworks, forcing companies to prioritise short-term survival over long-term sustainability goals. Economic performance is strained by declining investment levels, infrastructure and increasing market volatility, while social sustainability suffers from labour displacement, declining labour protections and weakened community engagement. In addition, environmental sustainability is compromised since conflicts contribute to resource depletion, pollution and weakened enforcement of environmental standards. Despite these challenges, some companies are demonstrating resilience through adaptive strategies such as decentralised energy solutions, ESG integration and financial risk management. However, the effectiveness of these approaches depends on the broader geopolitical landscape, regulatory stability and international cooperation. The chapter highlights the urgent need for greater collaboration between businesses, policymakers and global institutions to strengthen business resilience and ensure sustainable progress towards the SDGs in an era of growing geopolitical uncertainty. The findings call for a reassessment of corporate governance and risk assessment models to better address the complex and evolving nature of geopolitical risk.

Keywords Geopolitical risks · Sustainable development goals · Russia-Ukraine war · Corporate social responsibility; environmental · ESG · Economic and social sustainability · Triple Bottom Line · Barriers to SDG implementation

1 Introduction

Geopolitical risks (GPR) can manifest themselves in disruptions associated with political, economic, or social instability that can affect businesses, regions, and global systems (Caldara & Iacoviello, 2022; Wang et al., 2024). More specifically, these risks can be reflected in inter-regional conflicts, terrorism, political instability, and international tensions, all of which challenge global stability and impede sustainable development. Geopolitical events, such as the Russian-Ukrainian war and the Israeli-Palestinian conflict, highlight the far-reaching impact of GPR on economies, energy and food markets, and humanitarian systems, making global systems more vulnerable. Understanding the interplay between

GPR and various sustainability dimensions has never been more important, since global goals such as the Sustainable Development Goals (SDGs) face heightened challenges in conflict-affected regions. Sustainability, as defined by the Brundtland Commission (1987), is meeting today's needs without compromising future generations' abilities to meet their own (Brundtland, 1987). This principle has evolved into a robust framework through the UN's SDGs in 2015, balancing economic growth, social equity, and environmental protection. The GPR exposed weaknesses and calls for urgent action to remove barriers to SDG progress. The interconnected nature of these dimensions requires coordinated efforts, robust governance, and functioning institutions to ensure a resilient and equitable future. This chapter is motivated by evidence that geopolitical tensions are hindering progress towards the SDGs. The war between Russia and Ukraine, for example, has caused widespread disruptions in global supply chains, particularly in critical sectors such as energy and food, leading to increased food insecurity in vulnerable regions across the globe (Rudolfsen et al., 2024). Geopolitical risks have also increased financial market volatility and reduced foreign direct investment (FDI), affecting especially emerging economies relying on external capital (Jha et al., 2024; Wang, 2023). This illustrates the potential and actual impacts of geopolitical risks on global sustainability objectives and the urgent need to address them. This chapter addresses a critical research question: do geopolitical conflicts create additional barriers to achieving SDG implementation at the firm level, and how do these barriers affect environmental governance, economic stability, and social development? By examining these dimensions, this chapter aims to uncover the effects of GPR on environmental governance, economic stability, and social development. The chapter is structured as follows. Firstly, the concept of GPR is explored to provide a basis for understanding its implications for achieving sustainability goals. Then firm-level barriers to engaging with SDGs are analysed, with highlights including resource allocation challenges, governance inefficiencies, and operational disruptions. Next, the economic consequences of geopolitical conflict are examined including trade disruptions, reduced investment, and market volatility. The conclusions are that geopolitical instability hinders not only climate action and renewable energy transition, but also impedes social cohesion, exacerbates inequalities, and disrupts services in conflict-affected regions. The Russia-Ukraine war illustrates the impact of GPR on SDG 13 (climate action) and SDG 16 (peace, justice, and strong institutions). The research

concludes with recommendations, highlighting the need to counter the effects of GPR with resilient governance frameworks, innovative business strategies, and global cooperation.

2 Understanding Geopolitical Risks: implications for Sustainable Development in the EU

GPR is defined as the threat, realisation, and escalation of adverse events such as war, terrorism, and political tensions that disrupt international relations and economic stability (Caldara & Iacoviello, 2022). Historically associated with territorial disputes and state rivalries (O' Tuathail & Dalby, 2002), its definition has evolved to include modern power dynamics that may not involve direct violence but still significantly influence international systems. These risks vary widely depending on geographical proximity and specific political or economic contexts, leading to heterogeneous impacts across regions (Foglia et al., 2023).

A critical dimension of GPR is the distinction between geopolitical threats (GPRT) and geopolitical actions (GPRA) (Caldara & Iacoviello, 2022; Matthew et al., 2019). GPRT represent potential risks, such as escalating military tensions or nuclear threats, that create uncertainty and influence market behaviour and policy decisions. In contrast, GPRA refers to realised events, such as wars or terrorist attacks, which cause immediate disruption. This two-component framework is essential for understanding both the anticipatory and reactive facets of geopolitical risk (Caldara & Iacoviello, 2022). For example, in the context of the Russian-Ukrainian war, GPRT includes the global fear of further escalation or policy uncertainties associated with the Trump administration, while GPRA includes the tangible disruptions to energy supplies, infrastructure, and trade as hybrid war activity.

Geopolitical risks can have a big impact on energy, financial markets, and global trade. Energy markets are particularly vulnerable as conflict and instability disrupt supply chains, causing significant price volatility of commodities like crude oil and natural gas (Yang et al., 2023). This volatility affects economic stability and the transition to sustainable energy. Financial markets are also sensitive to risk and uncertainty, leading to investment, currency value, and market confidence fluctuations. Sectors like IT and financial services can show resilience or

growth during periods of heightened geopolitical tension, as seen in the US stock market (Mahmood et al., 2023). Global trade and economic growth face challenges as geopolitical risks disrupt supply chains, undermine trade agreements, and exacerbate regional disparities (Aiswarya & Muthumeenakshi, 2024).

Modern approaches to measuring GPR include analysing the frequency of news articles on geopolitical tensions, providing quantifiable insights into the perceptions of the public, investors, and policymakers (Bondarenko et al., 2024; Caldara & Iacoviello, 2022; Zaremba et al., 2022). Such methods allow geopolitical risks to be tracked in real time, providing a clearer understanding of their evolution and impact on interconnected systems. For example, tools such as the Geo-Risk Regressor have been used in the US to model and manage geopolitical risks, to predict their impact on market performance (Reza et al., 2024).

The energy sector remains a focus of GPR studies (Khurshid et al., 2024), given the intersection of rising global energy demand and finite resources. Geopolitical risks exacerbate energy market disruptions, undermining long-term price stability and environmental sustainability (Yang et al., 2023). These dynamics illustrate the cascading impact of geopolitical risks on global resource allocation, financial stability, and the viability of long-term sustainable development.

GPR's impact extends beyond immediate economic disruption, affecting the achievement of the UN Sustainable Development Goals (SDGs). Geopolitical risks disrupt long-term planning, weaken institutions and exacerbate inequalities, undermining progress on key SDGs such as poverty reduction, clean energy, and peacebuilding (Aiswarya & Muthumeenakshi, 2024). The Russian-Ukrainian war has serious implications for energy, food security, and the environment (Abdullaieva et al., 2022; Panazan & Gheorghe, 2024). At the same time, the Israeli-Palestinian conflict shows how conflicts can stop economic development, exacerbate global equity, and influence commodity prices (Khan et al., 2024). Geopolitical risks pose complex challenges that lead to cross-country spill-overs which have been extensively measured (Balli et al., 2022). They threaten global stability, hinder economic progress, and jeopardise the achievement of the SDGs by destabilising critical systems such as energy, trade, and governance. Effective management of geopolitical risks requires risk strategies (Das et al., 2023). Adopting a holistic

approach can help policymakers, researchers, and global institutions navigate the complexities of GPR and ensure progress towards a stable and sustainable future.

Geopolitical risks affect progress towards the Sustainable Development Goals by threatening progress in multiple areas of sustainability (Pereira et al., 2022; Qin et al., 2023). Understanding the complex relationship between these risks and these areas is essential for effective strategy. Considering climate action, GPR hinders the transfer of green technologies, a cornerstone of climate action (Wang et al., 2024). Relatedly, geopolitical risks disrupt foreign direct investment (FDI) and import channels, creating barriers for developing countries relying on advanced green technologies (Cheng et al., 2024). Addressing this issue requires political stability, improved green technology infrastructure, and stronger IP protection (Cheng et al., 2024). Strengthening cooperation and governance on investment and IP matters are therefore key and are targeted by EU measures such as its sustainable investment facilitation agreement (SIFA) with Angola.[1]

GPR also has a significant impact on environmental sustainability by accelerating carbon emissions, particularly in high-emission countries (Luo & Sun, 2024). This exacerbates global climate challenges and undermines global efforts to combat climate change. Robust environmental governance in terms of a stable political environment and a sound legal system can potentially mitigate the negative effects of GPR on carbon emissions [**Помилка! Джерело посилання не знайдено.**]. Strong environmental governance aligns with SDG 13 (climate action), ensuring climate action is resilient to geopolitical disruptions and supports long-term environmental sustainability.

The economic and social impacts of GPR highlight the need for peace, justice, and strong institutions (SDG 16). Geopolitical risks disrupt economic development, energy security, and global supply chains, which are critical for sustainable development (Federle et al., 2024; Li, Feng, et al., 2024). Businesses must manage costs carefully due to financial uncertainties and higher transaction costs caused by GPR, reflecting its impact on economic stability (Munyua, 2023; Srivast et al., 2024). This highlights the need for international cooperation and stronger

[1] https://trade.ec.europa.eu/access-to-markets/en/content/eu-angola-sustainable-investment-facilitation-agreement-sifa.

institutional frameworks to deal with the consequences of geopolitical instability.

GPR poses challenges to sustainable development, but also highlights the importance of cooperation and strategic policymaking in dealing with these issues. By understanding GPR, policymakers can be more resilient to geopolitical risks as a function of improved governance planning, ensuring progress on climate goals and building stronger institutions. Integration of environmental regulation and policy instruments (Erdogdu, 2025; Smith et al., 2024) into strong institutional frameworks is vital for sustainable economic and environmental progress (in line with SDGs 13 and 16), safeguarding against GPR. This holistic and inter-connected understanding of GPR will help people around the world to better understand geopolitical complexities and support a more sustainable and fairer future.

Triple Bottom Line (TBL) thinking significantly influences strategic decision-making in geopolitical conflicts by integrating environmental sustainability, social equity, and economic viability. This holistic approach promotes a comprehensive perspective that recognises the interdependencies between these dimensions and encourages sustainable solutions to complex global challenges. Kumar et al. (2024) explain how integrating environmental sustainability into decision-making processes protects the environment while maintaining economic growth (Kumar et al., 2024). They argue that policies which mitigate environmental degradation are supported by TBL thinking, encouraging the development of clean energy and sustainable business practices that are essential for long-term viability. The adoption of environmentally conscious strategies ensures that economic expansion does not come at the expense of natural resources and biodiversity. TBL emphasises inclusive governance and equitable resource distribution for social equity. Communities' involvement in decision-making enhances sustainability initiatives' legitimacy (Kumar et al., 2024). Social inequalities must be addressed as they can exacerbate geopolitical tensions and hinder long-term sustainability (Wu et al., 2024). Achieving balance is essential for stability and cooperation. For the TBL model to be economically viable, economic growth must be aligned with environmental and social objectives. However, this is difficult because of inherent trade-offs among those objectives (Wu et al., 2024). Policymakers must adopt strategies to ensure that economic expansion does not compromise environmental integrity or social well-being (Nogueira et al., 2023). Investment in renewable energy, technology, and responsible business practices strengthens the global economy. TBL

thinking in geopolitical decision-making has benefits, but critics argue that achieving all three dimensions simultaneously may be unrealistic. The "trilemma" suggests that prioritising one aspect may be necessary to achieve overall sustainability (Wu et al., 2024). This highlights the importance of adaptive strategies that address geopolitical conflicts while balancing environmental, social, and economic imperatives. TBL thinking provides a framework for navigating geopolitical complexities, promoting sustainability, and fostering long-term global stability.

Sustainability, as defined by the Brundtland Commission (Brundtland, 1987) emphasises the interconnectedness of current actions and their impact on future generations, and provides a conceptual framework for addressing global challenges (UN, 2015). The United Nations Sustainable Development Goals (SDGs) further elaborate on the practical dimensions of sustainability. These goals serve as a normative framework, outlining aspirations for planetary health, social equity, and economic stability (Gupta et al., 2024).

Sustainability can also be understood through the lens of capital maintenance, which involves the preservation of various forms of capital—natural, human, social, intellectual, and manufactured (Rockstrom et al., 2009). Ensuring that these capitals are not depleted is critical to maintaining the ability of future generations to achieve a similar standard of living. The depletion of natural resources, the erosion of social cohesion and trust, and the degradation of human and intellectual capital pose significant threats to sustainability (Barron et al., 2023; Von Weizsäcker & Wijkman, 2017), to the functioning of institutions (Acemoglu & Robinson, 2013), and highlight the need for strategic efforts to preserve these assets (Heal, 2016; Islam & Winkel, 2017).

Barker (Barker, 2025) identifies market failures as a key challenge to reaching sustainability goals, where greater information disclosure on negative external effects helps to align individual and collective corporate economic interests and thereby helps internalise those external costs imposed on society. This phenomenon is epitomised by the "tragedy of the commons," where unchecked consumption or resource use depletes shared resources and leads to collective ruin (Cashore & Bernstein, 2023). Such depletion of natural resources and environmental degradation are stark examples of how market dynamics, in the absence of effective regulation, can undermine sustainable outcomes. Corporate accountability and its voluntary and mandatory regulation is emerging as an important

component of sustainability governance, particularly in the area of corporate sustainability reporting. By providing transparency and accountability as part of self-regulation, companies play a key role in aligning their operations with societal goals. However, self-regulation in Europe has proven not to be sufficient (e.g., banking regulation prior to the financial crisis 2008/2009; the EU's EUDR, the deforestation-free supply chain regulation),[2] and therefore governments, civil society, and regulatory frameworks are central to jointly aligning corporate and societal interests, on top of transparent self-regulation (Vigneau & Adams, 2023). Through a coherent integration of instruments such as regulation, taxation, and subsidies, European governments can shape economic incentives to support sustainability goals, although a lack of coherence is likely to increase with increasing policy complexity (e.g., the EU's Green Deal, Clean Industrial Deal, Global Gateway, Competitiveness Compass, Corporate Sustainability Due Diligence Directive CSDDD).[3] Therefore, while these mechanisms are critical to addressing systemic challenges and ensuring that business activities are integrated into broader sustainability frameworks, they need to be coordinated so that self-regulation can work effectively together with regulation (Beckers, 2019).

Geopolitical risk and sustainability are deeply interconnected, as already signalled by the above discussion. While GPR poses significant challenges to the realisation of the SDGs, it also underscores the urgency of promoting cooperation among public and private actors, sound governance, and strategies for building resilience. Achieving more sustainable outcomes in Europe will require more collective action by individuals, businesses, and governments, balancing short-term needs with long-term goals to ensure a resilient and equitable future for all. This means not only that further transformation of corporate governance structures are needed towards greater coherence and commitments of all actors but also implies that for geopolitical risks to reduce their potential detrimental impacts on the achievement of SDGs, public regulation needs to be coherent, transparent, and accountable to complement self-regulation most effectively.

[2] https://ec.europa.eu/commission/presscorner/detail/en/ip_22_7444.

[3] https://www.innovationnewsnetwork.com/ebook/sustainable-agricultural-trade-through-inclusive-agency-and-robust-governance-lessons-for-policymaking/.

Otherwise, geopolitical risks will retain their negative sustainability implications in a public policy environment that remains contested, incoherent, and illegitimate.

To avoid such a public policy environment, strong environmental governance and policy coordination are essential for achieving SDG 13 (climate action). Consider the EU's Carbon Border Adjustment Mechanism (CBAM), which could be seen by some as key to mitigating geopolitical risks, alongside corporate sustainability initiatives, although NGOs and foreign trade partners have raised concerns, having been largely excluded during its inception (Carlson et al., 2023; Lamy et al., 2024).

In sum, managing these geopolitical risks requires a holistic approach by the EU, integrating policy, finance, and governance on social and environmental sustainability, but also defence spending and strategy, and strengthening cooperation between EU and non-EU governments, businesses, and civil society, to build global resilience. Geopolitical risks pose significant challenges to democracy, to the achievement of the SDGs in the EU and elsewhere, affecting energy security, economic stability, and institutional resilience. Addressing these risks requires not only strong but also equitable and thus inclusive governance (the EU designing policy instruments accordingly with its trade partners, not only with its own members), strategic policymaking and international cooperation that is in line with EU values and its policy mix aiming to foster the SDG achievement (e.g., Green Deal, Clean Industrial Act). By adopting TBL thinking to the above challenges by all actors, private, public, and civil society, and adopting risk mitigation strategies within the frames of WTO, NATO, and the main EU policy frameworks, the EU may be able to navigate geopolitical complexities and contribute to a more stable and sustainable future in Europe and beyond.

3 The Threefold Impact: Environmental, Economic, and Social Challenges of Geopolitical Conflicts on Sustainable Development

Geopolitical conflicts could be regarded as a sub-category of geopolitical risks when inter-regional conflicts (security) between autonomous states are concerned, since security and risk tend to share the same political and operational space (Das et al., 2023; Floyd, 2025). Geopolitical conflicts

can affect climate change policies, renewable energy policies, and the effectiveness of international environmental agreements (Bakhsh et al., 2024; Barnett, 2007). Bakhsh et al. (2024) have shown how environmental governance and economic complexity interact with geopolitics to create complexities and obstacles that hinder the green energy transition (Bakhsh et al., 2024). The Russian-Ukrainian war shows how geopolitical conflicts can accelerate the transition to renewable energy and complicate international climate efforts. It also shows that this transition is a function of internal state capacity (Chien et al., 2021), re-enforcing the inter-connectedness of geopolitical conflicts through the need for state capacity and good governance globally (Robinson & Acemoglu, 2012).

In addition, geopolitical conflicts often affect energy markets and access to resources, as the example of the Trump administration with regard to its interest in Ukraine's natural resources shows, highlighting the intersection between environmental sustainability and political stability, and autocracy (Adel & Naili, 2024). More specifically, conflicts over natural resources such as water or fossil fuels not only exacerbate geopolitical rivalries, but also hinder the global transition to renewable energy and sustainable development (Borozan, 2024).

Integrating environmental governance into GPRs discussions is important (Tuteja, 2024). Addressing geopolitical risks in support of sustainability helps to ensure that progress towards critical environmental goals is not derailed by political challenges. By prioritising political stability and sustainability objectives, a more resilient, interconnected global framework can be created that balances economic, political, and environmental imperatives.

Many high-income countries are accelerating their transition away from non-renewable to renewable energy not only because of shifting underlying economic incentives (global prices, or policies with global implications such as the US's Inflation Reduction Act), but also due to geopolitical conflicts such as the Russian-Ukraine war. However, there is also evidence that geopolitical risk adversely affects both types of energy consumption, renewable and non-renewable (Yasmeen & Shah, 2024). Yet this transition towards more renewables is urgently needed to increase energy security and reduce dependence on unstable regions. Europe is focusing more on renewables and energy efficiency, not least because of disruptions to Russian fossil fuel imports and the Russia-Ukraine war (Bariar & Monga, 2024). From the above evidence it becomes clear that geopolitical conflict affects climate change mitigation because energy

crises triggered by conflicts can help reduce carbon emissions as countries shift towards renewable energy (Harmsen et al., 2024).

The long-term impact of conflict on climate policy at country level depends on variables such as high fossil fuel prices and geopolitical instability. Conflicts also reshape geopolitical alliances, which impact international climate negotiations. Trade relations between China and Russia post-war could impact global climate policy and negotiations (Schreurs, 2023). One of the most significant challenges posed by geopolitical conflicts is their impact on the implementation and success of international environmental agreements. These conflicts disrupt the geopolitical landscape, create new economic dependencies, and alter the balance of power in international relations (McGee & Penning-Rowsell, 2022). Global cooperation, which is essential to address transboundary environmental challenges such as climate change, is undermined by the fracturing effects of conflict. Frameworks and agreements designed to manage environmental risks are often less effective as geopolitical tensions impede collective action and exacerbate divisions (McGee & Penning-Rowsell, 2022). In sum, as we saw above, geopolitical tensions can encourage renewable energy use, but also hinder international climate change efforts. The Russia-Ukraine war demonstrates this complexity, while calling for a systems approach, specifically an energy systems transformation approach (Blondeel et al., 2021) that is based on international institutions that cannot easily be derailed by a single alliance member. This implies that functioning international agreements are essential to achieve Sustainable Development Goal 13, and strong global cooperation is vital to tackle climate change and promote sustainability, rather than COP meetings with limited efficacy. Yet when global cooperation is itself at risk, and key international players exit from international environmental commitments and global sustainability-supporting institutions (WHO, USAID), regional cooperation efforts likely can partly serve as complementary accelerators to global cooperation for the energy transition, for example by creating new climate clubs (Bassi et al., 2025).

Geopolitical conflicts can significantly disrupt global economic stability through their impact on trade, foreign investment, and financial systems. These conflicts generate both direct economic disruptions and wider indirect effects by increasing geopolitical risks, with emerging markets and developing economies likely bearing the brunt of these challenges (Bohlmann & Inglesi-Lotz, 2024; Lamy et al., 2024; Steiner, 2025). The complex and far-reaching economic consequences of such conflicts

highlight the urgent need for enhanced international cooperation, governance reforms, and progress on the Sustainable Development Goals (SDGs) to address economic vulnerabilities and ensure global stability (Góes & Bekkers, 2022). Notably, it is striking in this context that the WTO is still dysfunctional and can thus provide only a limited contribution to addressing geopolitical conflicts or even negative external effects. However, we must also keep in mind that the WTO framework was not conceived to address environmental sustainability issues (Petersmann, 2024).

The Russia-Ukraine war has profoundly disrupted global trade, particularly in energy and agriculture, which are critical to global supply chains and food price inflation globally. These disruptions have thus caused economic instability with shortages in energy and food impacting economies worldwide, affecting both developed and developing nations (Tian, 2024). Economic sanctions on Russia have further exacerbated trade tensions, straining international trade relations and increasing global market uncertainty (Tian, 2024). The resulting global economic fragmentation reminds us of the Cold War period (Mingst & Karns, 2019), but with tensions between Europe and the US, rather than between the US and Russia, and undermines the principles of global cooperation essential for sustainable development. This fragmentation is significant in that it is also accelerated by transactional US policy behaviour, since economic consequences of prolonged conflicts extend far beyond immediate disruptions. Wars lead to significant GDP declines and inflation spikes in affected regions, driven by negative supply shocks that disrupt production and trade (Federle et al., 2024). Based on a dataset spanning 150 years of data for more than 60 countries, Federle et al. (2024) conclude that a war on a country's territory typically leads to an output decline of 30 percent and a 15-percentage point increase in inflation (Federle et al., 2024). Early estimates related to the costs of the Russian war in the Ukraine amount to about $1.5 trillion or 1% of global GDP growth decline, largely related to the significant global agricultural and energy commodities exports from Russia and Ukraine (Chishti et al., 2023; Li et al., 2024). It is noteworthy to recall that these two countries alone produce approximately 80% of the world's sunflower oil, and about 50 countries import at least 30% of their wheat from Russia or Ukraine (Pereira et al., 2022). Countries near conflict zones experience heightened economic instability, with adverse effects on trade integration and innovation. Geopolitical tensions frequently alter trade policies, raising

trade costs and reducing the diffusion of technology, which is essential for fostering innovation and sustainable growth (Góes & Bekkers, 2022). These consequences are particularly severe in low-income regions, where limited technological access exacerbates existing inequalities, as the example of Africa testifies (Lamy et al., 2024).

Geopolitical instability affects foreign investment, deterring FDI and reducing economic activity in conflict-affected regions. Transnational corporations (TNCs) respond by diversifying and forming local partnerships to protect their operations and manage uncertainties. These strategies provide only temporary relief and fail to address the broader economic challenges posed by geopolitical conflict as well as challenges to investor behaviour that is also influenced by geopolitical risk. During periods of heightened tension, investors move capital from equities to bonds (Ge, 2024). This shift makes markets more volatile, especially for sectors hit by the conflict (e.g., energy and defence). G7 markets have shown how linked the global economy is and how significant the impact of political instability can be (Panazan & Gheorghe, 2024).

Yet, the implications of geopolitical risks are typically not only a function of the development status of an economy, we also observe that these risks can reinforce existing spatial inequalities in terms of development. Emerging markets typically face larger geopolitical risk, which makes their economies weaker. Foreign exchange and banking systems are particularly vulnerable as geopolitical tensions make currencies more unstable and put financial institutions under pressure (Nguyen Huu & Örsal, 2023). Unlike advanced economies, where equity markets are primarily affected, emerging markets have deeper and more lasting vulnerabilities. This shows the need for targeted and yet globally coordinated financial interventions (think IMF, Word Bank, European Development Bank, etc.) to boost resilience in emerging and developing countries.

All the above highlights again the need for systemic solutions. Geopolitical conflicts impact banking systems, especially in emerging and developing countries, where they increase the systemic risk of banking crises (Adel & Naili, 2024; Nguyen Huu & Örsal, 2023). These crises undermine economic growth and social welfare as financial institutions struggle to maintain stability (Chishti et al., 2023). Instability has knock-on effects on neighbouring countries, exacerbating regional financial instability and hindering progress towards the Sustainable Development Goals (SDGs) (Chishti et al., 2023). Fostering peace and strengthening institutions are therefore key to mitigating these risks and promoting economic resilience.

Financial market volatility is another consequence of geopolitical conflicts. Europe's dependence on Russian energy exacerbated volatility in oil and gas markets, destabilising economies dependent on these resources (Hossain et al., 2023; Zhou, 2024) with knock-on effects for financial markets. Exchange rates are particularly sensitive to geopolitical conflict, as the disruptions caused by the Russia-Ukraine war have shown. Emerging economies that depend on Russian energy and have economic policy uncertainty experienced severe foreign exchange market volatility (Hossain et al., 2023; Rao, 2024). Strong national and international institutions that work transparently and coherently, and political stability are naturally important for mitigating these impacts and promoting resilience in SDG-related goals. Institutional frameworks that promote economic and political stability and resilience are essential to counteract economic volatility, geopolitical tensions, and autocratic transactional policy-behaviour undermining those frameworks.

Sanctions are frequently used in geopolitical conflicts. They are intended to pressure certain countries, but often don't achieve their objectives. For example, in Russia, the country's relationship with China and India improved as a function of the Ukraine-Russian war, and there was a modest economic growth (Jakupec, 2024; Sanandaji, 2018). Sanctions can harm many parts of society when they cause economic losses, increase poverty, and aggravate public health (Hanania, 2020). This suggests that sanctions are a complicated and economically speaking ineffective tool for dealing with international politics, yet they are often considered essential by policymakers on moral grounds (McElroy, 2014).

Considering the above evidence that geopolitical conflicts threaten economic stability, multilateral approaches and international peacebuilding initiatives are vital for mitigating the economic impacts of such conflicts and promoting global stability (Tian, 2024). Progress towards the Sustainable Development Goals (SDGs), particularly those focused on peace and justice, is naturally critical to resilient systems in the face of geopolitical pressures. Yet as current geopolitics shows, a key challenge associated with global peacebuilding and justice relates to the complex inter-connections with national political interests, if we consider the dismantling of USAID by the Trump administration.

By disrupting essential energy and public health services, undermining social cohesion and causing economic stagnation, geopolitical conflicts can have a profound impact on social development and sustainability.

These multiple impacts encompass economic, social, and political dimensions and create significant barriers to long-term sustainable development (Table 1). Addressing these challenges requires comprehensive strategies in line with Sustainable Development Goal 16 (peace, justice, and strong institutions), which emphasises the need for inclusive governance and stability. Conflicts often disrupt essential services such as education and health care, which are fundamental to societal well-being and human capital development. Prolonged disruptions undermine future economic productivity and social progress. In Ukraine, for example, the ongoing military conflict has devastated socio-economic infrastructure, making it difficult to restore essential services and achieve sustainable development (Petrukha et al., 2024; Smith, 2024). More than 45% of Ukrainians could be considered to live in food insecure situations, and hundreds of schools and hospitals have been destroyed (Pereira et al., 2022). Coordinated efforts involving governments, international organisations, and local communities are needed to rebuild these systems and mitigate the long-term negative social effects of conflict.

Another related consequence of geopolitical instability is the erosion of social cohesion and trust within communities, and hence social capital. Social cohesion is essential for stability and development, as it fosters not only cooperation and collective problem-solving but also firm performance (Wang & Steiner, 2015, 2020). However, conflict fragments societies, leading to increased polarisation and the potential for prolonged cycles of violence (Smith, 2024). Peacebuilding initiatives and historical examples of successful reconciliation emphasise the importance of fostering social unity to counter the divisive effects of conflict (Midgley, 2017). Promoting peace and rebuilding trust within and between communities are critical steps towards achieving SDG 16 (Korol et al., 2024).

Rising poverty can also be a major consequence of geopolitical conflict. Disruptions to trade, production, and investment lead to unemployment and deepen social inequalities, further hampering development efforts (Ray & Esteban, 2017; Smith, 2024). Addressing these social challenges will require collaboration between the national government, local communities, and international partners to design and implement policies that promote inclusive economic growth (Petrukha et al., 2024). Thus, sustainable reconstruction efforts must prioritise the needs of vulnerable populations to break the cycle of poverty and inequality.

Table 1 Key barriers to progress on SDGs amid geopolitical challenges

Sustainability dimension	*Barriers to achieving SDGs*	*Source*
Environmental	Disruption of energy markets and access to resources, exacerbating renewable energy transitions	Schreurs (2023), Khan et al. (2024), and Barnett (2007)
	Weak implementation of international environmental agreements due to geopolitical tensions, anthropogenic activities	McGee and Penning-Rowsell (2022), Qin et al. (2023), Wang et al. (2024), and Erdogdu (2025)
	Impact on biodiversity, soil health, and carbon emissions	Pereira et al. (2022), Pereira et al. (2022), Lamy et al. (2024), and Leal Filho et al. (2024)
Economic	Trade disruptions and increased trade costs from geopolitical conflicts like the Russia-Ukraine war	Abdullaieva et al. (2022), Tian (2024), and Das et al. (2023)
	Decreased FDI due to heightened geopolitical risk, implications for risk management and national security policies	Yang et al. (2023), Jha et al. (2024), Balli et al. (2022), and Wang (2023)
	Vulnerability of financial systems, particularly in emerging economies, to geopolitical instability, investor overreaction, militarisation, and budget reallocations	Nguyen Huu and Örsal (2023), Jha et al. (2024), Zaremba et al. (2022), Khurshid et al. (2024), and Yasmeen and Shah (2024)
Social	Breakdown of essential services such as education and healthcare in conflict zones, impact on health and well-being	Nguyen Huu and Örsal (2023), Petrukha et al. (2024), Pereira et al. (2022), and Chien et al. (2021)
	Erosion of social cohesion and trust within communities, leading to societal fragmentation	Smith (2024) and Midgley (2017)
	Economic stagnation and rising poverty resulting from prolonged geopolitical conflicts	Smith (2024), Ray and Esteban (2017), and Yasmeen and Shah (2024)

Geopolitical tensions also shape development policies and strategies, as illustrated by historical cases such as Korea and Germany. These tensions affect priorities, resource allocation, and the effectiveness of development initiatives, with significant implications for social development outcomes (Howe & Klingebiel, 2024). Ensuring that governance systems (local

value chains, national social governance mechanisms, multilateral governance) remain resilient to external shocks is critical to mitigating these influences on social development and thereby promoting sustainable development.

Geopolitical conflicts also influence the allocation of resources to social development programmes, reshaping priorities and redirecting funds towards strategic and national interests. This dynamic is evident in the dismantling of USAID with immediate consequences for Ukraine that are nevertheless contested in their allocative distribution efficiency (Wang et al., 2024). It also becomes evident in the European Union's Official Development Assistance (ODA) policy, where funding for the post-Soviet space quadrupled between 2010 and 2020, with a focus on regions aligned with the EU's geopolitical goals (Li et al., 2024). Similarly, development policies in countries such as Korea and Germany reflect geostrategic considerations, particularly in regions such as the Indo-Pacific where geopolitical and geoeconomic interests intersect (Howe & Klingebiel, 2024). While such reallocations may serve strategic purposes, they often come at the expense of broader social development goals, highlighting the need for balanced approaches that address both geopolitical and societal priorities.

In sum, and as highlighted above, geopolitical conflicts disrupt global trade and financial systems and exacerbate vulnerabilities, from energy and climate (SDG 13) to economic and social (SDG 16). They highlight the fragility of dependence on fossil fuels and the need for a transition to renewables, while reducing the efficacy of coordinated action by fragmenting global efforts to combat climate change. Addressing these challenges above requires international cooperation, resilient multilateral frameworks and inclusive multi-stakeholder adaptation strategies. Thereby it would be possible to advancing climate action, fostering resilient communities and supply chains, promoting peace and justice, thereby mitigating the long-term effects of geopolitical instability. Policymaking would benefit from integrating sustainable development into conflict mitigation strategies and addressing root causes such as inequality and governance failures, thereby creating opportunities for progress on all dimensions of sustainability.

In line with the above discussion, the key barriers to progress on SDGs amid geopolitical challenges are summarised in Table 1.

4 Firm-Level Barriers to Accomplishing the SDGs in the Context of Geopolitical Risks in the European Union

Firms face a range of barriers when implementing sustainability initiatives, which can be exacerbated by geopolitical instability.

This section aims to examine two key aspects. First, we explore the general barriers firms face when implementing the SDGs, focusing on strategic, functional, and efficiency challenges in the context of a business environment where major geopolitical risks are not imminent. Second, we examine how geopolitical risks affect environmental, economic, and social sustainability at the firm level, further complicating the achievement of SDG-related goals. To address these issues, we pose the following research questions: What are the key barriers to SDG implementation at the firm level? How do geopolitical risks affect the environmental, economic, and social dimensions of sustainability in firms?

The barriers to companies adopting sustainability practices are diverse and include strategic, functional, and efficiency challenges. These barriers are influenced by resource constraints, governance issues including stakeholder pressures, and cultural resistance to SDG adoption, which taken together impede the implementation of sustainable practices (Urbieta, 2024). The absence of clear stakeholder demand and strong leadership exacerbates these barriers, which are essential to drive sustainability initiatives adoption.

Resource constraints, unclear expectations, and regulatory complexity create strategic barriers. Financial and human resource constraints prevent companies from pursuing comprehensive sustainability initiatives (Agrawal et al., 2024; Arora et al., 2024). Without sufficient investment and expertise, companies struggle to integrate sustainability into their strategies. The lack of clear demand makes it hard for organisations to prioritise sustainability goals (Arora et al., 2024). The regulatory landscape complicates these efforts. Facing different regional regulations requires resources and adaptability, challenging companies in global markets (Agrawal et al., 2024; Chien et al., 2021).

Functional barriers reflect internal company challenges, including governance inefficiencies and cultural resistance. Ineffective governance structures, including hierarchies, often lack oversight, commitment, and direction to support sustainable practices (Arora et al., 2024; McGrady &

Golicic, 2023). These gaps impede decision-making and limit an organisation's ability to align sustainability with business objectives (Arora et al., 2024). Arora et al. (2024) argue that another critical challenge is resistance to change within organisational cultures. If organisations do not shift towards sustainability, they will struggle to embed sustainable practices. This resistance often stems from ingrained norms and an unwillingness to adapt (Arora et al., 2024).

A key to implementing environmental and social sustainability is organisational and technological leadership (McGrady & Golicic, 2023). Strong organisational leadership is vital for its adoption, setting the tone within an organisation and mobilising resources (McGrady & Golicic, 2023). Without it, companies lack the strategic direction and motivation needed to prioritise sustainability targets. Yet technological challenges, in terms of high transaction costs, also limit the ability of organisations to reduce their environmental impact and improve operational efficiency (Agrawal et al., 2024; Chien et al., 2021). Businesses face many challenges in implementing sustainable development practices due to their size, complexity, and the multifaceted nature of the barriers they face (Arora et al., 2024; Góes & Bekkers, 2022). These challenges span economic, regulatory, technological, and functional dimensions. While larger companies typically have more resources, they are often subject to greater public scrutiny and higher expectations to lead sustainability efforts, creating both barriers and opportunities to drive meaningful change. Existing operational structures are often not conducive to sustainability transitions, requiring costly and time-consuming organisational changes due to hierarchical structures (Arora et al., 2024). Larger companies have easier access to financial markets, but sustainability projects require long-term investments with delayed returns, making them less attractive to investors (Stoica, 2024). High upfront costs, taxation, and inadequate financing mechanisms are compounded by inadequate policy frameworks and limited legislative support, discouraging long-term investment. For companies operating in multiple jurisdictions, regulatory challenges can pose additional hurdles. Differences in environmental regulations require companies to adapt their operations and reporting practices to meet different standards, increasing administrative and financial burdens (Stoica, 2024).

Businesses also struggle to incorporate sustainability measures due to functional barriers. Poor governance frameworks lead to ineffective policies and oversight, undermining sustainability efforts. Resistant corporate

cultures further compound the difficulties, as ingrained cultural norms hinder the adoption of new environmental policies. A lack of managerial understanding of environmentally conscious manufacturing (ECM) causes misaligned priorities and communication breakdowns, slowing the progress of sustainability initiatives (Alqahtani & Makki, 2022). There are also significant technological barriers, even for companies with abundant natural resources. Staying at the forefront of technology requires significant resources. This often overwhelms even large companies (Stoica, 2024), and they may have to rely on external consultants or delay sustainability goals because of a lack of expertise. Inadequate training on technology adoption undermines employees' ability to support environmental goals (Silva & Gouveia, 2020).

Emerging markets, such as those in Ukraine, face particular challenges with implementing social sustainability goals due to weak regulatory frameworks. Lack of robust regulations and enforcement mechanisms can result in fragmented practices, and these practices are difficult to align with global sustainability standards (Bariar & Monga, 2024). Governance issues can also lead to biases in policy implementation, undermining stakeholder trust and engagement (Ganesh & Venugopal, 2023; Tuteja, 2024). Without strong governance frameworks built on enforceability, companies cannot effectively address social sustainability objectives. To align social sustainability efforts with broader strategic goals, companies must embed ESG principles into their core business strategies (Tuteja, 2024). However, this process is complex and requires coordination across multiple intra-organisational functions. Contribution to SDGs thus requires organisational commitment to social issues, stakeholder engagement, innovation, and adaptability (Islam & Winkel, 2017; Tuteja, 2024).

Geopolitical conflicts have a profound impact on firms' environmental, social, and governance (ESG) performance, particularly in developed economies where firms face increased financial constraints and instability (Saharti et al., 2024). Companies operating in conflict-affected regions often prioritise business continuity over environmental or social sustainability initiatives, limiting investment in green technologies and sustainable business practices. This shift is exacerbated by weakened regulatory frameworks that lower environmental standards and corporate accountability, creating additional challenges for companies trying to maintain their ESG commitments. Volatile markets make these challenges worse because companies in uncertain times focus on short-term

financial stability rather than long-term development. Geopolitical risks disrupt planning and stop companies innovating and being sustainable. The instability of conflict impacts a company's environment by affecting resource allocation, compliance, and access to investment opportunities (Del Prete et al., 2023). Funding constraints may force companies to reduce their sustainability efforts, worsening environmental damage and hampering progress towards sustainability goals (Cheng et al., 2025). Supply chain disruption is another key issue here as companies must divert resources from sustainability efforts to survive (Villena & Gioia, 2018). The lack of regulatory certainty in conflict-affected regions also complicates environmental compliance as firms face less external pressure to uphold environmental commitments (Mattera & Soto, 2022). Furthermore, weakened stakeholder engagement reduces accountability, as investor attention, customer expectations, and regulatory oversight are less effective. Yet evidence suggests that companies with strong ESG frameworks are more resilient in the face of geopolitical conflicts (Cheng et al., 2025). However, with the right strategies, including the support of investors and governments, companies can still protect the environment, even during times of financial and regulatory uncertainty. This highlights the importance of adaptive strategies for businesses operating in volatile regions, requiring a proactive approach integrating commitments to financial stability, regulatory adaptability, and strategic sustainability, to ensure companies maintain ESG performance amid geopolitical instability. In essence, such proactive and adaptive behaviour reflects the notion of resilience thinking (Folke et al., 2010), which is gaining importance due to the geopolitical risks.

Geopolitical conflict has a significant impact on Corporate Social Responsibility (CSR), creating instability that limits the ability of companies to uphold labour rights, employee welfare, and social initiatives. In conflict zones, companies often prioritise survival and continuity over their social commitments. This results in reduced efforts to promote employee well-being, leading to increased risks to employee safety and stability (Saharti et al., 2024). Community relations are also affected, as companies struggle to engage with local stakeholders. The need for short-term business resilience often takes precedence over long-term community investment, weakening CSR contributions and limiting corporate involvement in social development. The erosion of these relationships further exacerbates the challenges companies face in maintaining responsible business practices in conflict-affected areas (Del Prete et al.,

2023). Yet geopolitical conflict also has broader social impacts. Companies must navigate changing labour dynamics (reduced male labour force) and changing public perceptions, which necessitate strategic shifts that redefine CSR approaches. These require companies to adapt their social engagement strategies to maintain legitimacy and trust (Żuk, 2023).

Geopolitical conflicts significantly disrupt corporate decision-making, as immediate survival concerns take precedence over long-term governance strategies. Companies shift from proactive strategic planning to reactive crisis management, weakening governance structures and undermining sustainable business planning. This shift also undermines business resilience (resilient supply chains), making it difficult for companies to implement strategic initiatives beyond short-term survival. As a result of these shifts in strategy from long-term to short-term, economic performance is also affected, with companies in conflict-affected regions experiencing significant financial downturns due to infrastructure damage, productivity losses, and increased operating costs. Naturally, market instability compounds these challenges by discouraging investment and undermining consumer confidence. Declining sales and revenue streams further weaken financial stability and complicate recovery efforts even after conflicts subside, as restoring governance structures and financial health requires significant time and resources (Saharti et al., 2024).

Yet the relationship between conflict exposure and economic performance is complex. While many firms suffer performance declines due to reduced access to inputs, others may temporarily benefit from reduced market competition as competitors exit the market (Del Prete et al., 2023). Nevertheless, the overall economic impact remains overwhelmingly negative, as geopolitical instability forces firms to reassess operational strategies and financial priorities. A significant number of companies have withdrawn from the Russian market (e.g., most companies from Finland), requiring adjustments to supply chains and production processes. These shifts can have unintended environmental consequences, either improving or worsening companies' environmental footprints, depending on the alternatives adopted. In the context of large listed companies in Europe, financial losses, amounting to €71.3 billion due to impairments and lost sales, further constrain companies' ability to invest in sustainability and long-term environmental initiatives (Tas et al., 2023). Sector-specific impacts show that industries such as automotive, food, beverages, tobacco, and energy—sectors known for their large environmental footprints—are among the most affected (Tas et al., 2023).

The financial pressures on these industries can lead to increased emissions and waste if companies are forced to rapidly adapt their operations without taking sustainability considerations into account. Furthermore, the use of alternative performance measures that exclude reported losses from key financial indicators may obscure the true economic impact on these companies, further complicating efforts to assess the long-term impact of geopolitical conflicts (Tas et al., 2023), and further complicating the investment potential assessment of private and public investors. The above findings highlight the need for governance frameworks that are resilient to organisational, operational, and financial shocks. They also highlight the need for adaptive financial strategies by individual firms supported by national and supra-national investment initiatives to mitigate the socio-economic impact of geopolitical instability.

5 Discussion

This chapter has concentrated on addressing multi-dimensional sustainability and resilience implications of geopolitical conflicts as a subcategory of geopolitical risks when inter-regional conflicts between autonomous states are concerned. Geopolitical conflicts could be seen as posing additional challenges for companies in achieving SDG targets beyond those challenges under regional conflict-free peace-time business conditions. Geopolitical conflicts are reinforcing barriers that affect economic, social, and environmental dimensions, disrupting companies' sustainability efforts by destabilising supply chains, increasing financial risks, and hampering long-term planning (Żuk, 2023).

Geopolitical conflicts create accentuated financial and operational risks for companies, not only because of the induced uncertainty for investments and decision-making (Wang, 2023), but also because damaged infrastructure disrupts supply chains and logistics, impacting business continuity (Zavidna & Maliuta, 2024). Volatile markets and fluctuating prices further complicate operations, especially for industries reliant on stable input costs (Silva & Gouveia, 2020).

In such volatile contexts, companies typically face reduced investment, weakening market demand and profitability (Zavidna & Maliuta, 2024). As a function of reduced investment, geopolitical instability also hinders innovation and technology adoption. Although industry 4.0 technologies offer potential sustainability benefits through automation and data-driven decision-making, their implementation is hampered by delays,

additional costs, and political uncertainty in conflict zones (Rockstrom et al., 2009). Adaptive management strategies are required at private and public organisations to mitigate risks and sustain economic activity, for example through building decentralised energy systems as they are implemented in Ukraine or war zones in Africa.

In war zones, the safety of employees and security of assets are naturally of primary concern due to the increased risk to life and infrastructure (Roy, 2023). Under such conditions, conflict exacerbates social inequalities, fractures community cohesion and destroys social capital, thereby creating barriers to achieving SDG 16 (Silva & Gouveia, 2020). Companies operating in these contexts must navigate heightened expectations for social accountability while addressing immediate security concerns.

Geopolitical conflicts typically have a significant negative effect on environmental sustainability, causing environmental problems such as deforestation, damage to watersheds, and damage in soil systems (Malik, 2024). Companies in such environments must use new business models that consider the environment, society, and governance (ESG) to reduce environmental and social harm and build resilience (McLouth, 2024; Rudolfsen et al., 2024). However, implementing such governance and business models is financially and emotionally challenging because of the need to address the priority of urgent operational crises and therefore frequently lack resources.

Geopolitical conflicts create not only visible challenges, but also create latent and deep-rooted subsequent risks that may take decades to materialise. Many conflicts and wars throughout history have been triggered by seemingly unpredictable events that, with hindsight, have had cascading consequences (the assassination of Archduke Franz Ferdinand in Sarajevo in 1914, or the invasion of Kuwait in 1990). Such trigger-events serve as a reminder that seemingly isolated incidents can escalate into large-scale conflicts, permanently altering economic and governance systems.

This unpredictability highlights the existence of geopolitical "black swans" (Li et al., 2024)—rare, high-impact events that defy traditional forecasting models. Such events or individuals (Donald Trump) disrupt corporate strategies and sustainability efforts in ways that are difficult to anticipate, reinforcing the need for companies to remain highly adaptable in an era of growing uncertainty. We suggest that these challenges facing businesses could be categorised into two types of risks: those that amplify existing vulnerabilities related to tangible and intangible assets,

such as physical and human capital (Type A), and those that introduce new structural risks (Levine, 2023[4]), including political, ethical, and governance-related disruptions (Type B). Both risk types reinforce economic, social, and environmental obstacles for companies striving to implement sustainable business practices in volatile geopolitical contexts.

Type A risks primarily include the destruction of physical and human capital, which significantly impairs economic and health outcomes. Historical evidence from World War II illustrates the long-term economic consequences of war, where exposure to conflict led to reduced educational attainment, lower life satisfaction, and deteriorating health conditions in affected populations. These microeconomic effects align with analysis, emphasising the economic costs of war through the depletion of infrastructure and workforce capabilities. In modern conflicts, these economic and human capital losses mirror the disproportionate impact observed during climate crises, where lower-income populations and middle-class businesses bear the brunt of the disruption.

Type B risks introduce additional structural challenges that can permanently alter corporate operations and governance mechanisms. Conflicts reshape political and economic systems, with lasting consequences for fiscal and monetary policies (Rogoff, 2022). The breakdown of international cooperation, trade disruptions, and the politicisation of business relations can create a landscape where firms must navigate new regulatory constraints and reputational risks. A notable example is the shifting global governance landscape reflected in high-profile geopolitical tensions, such as the public dispute between Donald Trump and Volodymyr Zelensky and trade conflicts initiated by the US government in the Spring of 2025, creating novel politicisation of business relations. The political volatility in such environments disrupts international business relationships and

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"Structural risks bring into stark relief the importance of politics for regulatory review: they affect the political capacities of future generations, are exceptionally complex, and require durable political coalitions to be managed. … Structural-risk regulation requires defining goals across ecological, economic, and other large-scale systems. Administrators' mandate to choose these goals demands democratic legitimation. And their policies will be less effective without the social trust that democracy can best provide". (Levine, 2023: 283)

heightens the risks of policy unpredictability, further complicating the efficacy of corporate sustainability initiatives.

Geopolitical conflicts are fundamentally reshaping the triple-bottom-line sustainability landscape for companies, exacerbating existing risks while introducing new challenges that alter corporate governance and operational strategies. Type A risks—such as the destruction of physical and human capital—are to some extent predictable and manageable through strategic planning, risk mitigation, and adaptive governance frameworks. Companies can implement financial resilience measures, develop decentralised energy solutions, and integrate ESG principles to mitigate the impact of these known threats. However, Type B risks, which involve structural and systemic shifts in political, economic, and ethical frameworks, pose a far greater challenge. Often manifesting themselves as abrupt changes in governance mechanisms, international policy alignments, and business regulations, these risks leave companies with limited capacity to adapt or anticipate their long-term impacts. Unlike Type A risks, which could be incorporated into corporate risk assessments, Type B risks remain largely beyond the control of individual companies, policymakers, and even global institutions.

This distinction of risk types raises important questions about how companies, governments, and international organisations may address the unpredictable nature of Type B risks (uncertainties). Are there strategies that can improve resilience in the face of these unknown variables, or do companies need to fundamentally rethink their sustainability and governance models? Further exploration of these questions is critical to developing more agile and comprehensive business and public policy approaches to corporate sustainability in an era of ongoing geopolitical instability.

6 Conclusions

Geopolitical risks pose a significant challenge to the realisation of the Sustainable Development Goals (SDGs), creating economic uncertainty, disrupting environmental sustainability, and weakening social cohesion. This chapter has shown that geopolitical conflict exacerbates existing barriers to sustainability, while introducing new complexities that redefine corporate governance and risk management strategies. Companies operating in conflict-affected environments face significant constraints in

maintaining environmental, social, and economic sustainability as geopolitical instability disrupts supply chains, financial stability, and regulatory oversight. While companies can plan and govern for specific risks, broader structural risks associated with geopolitical conflict are harder to predict. Wars seem often to arise from causal chains of events such as the assassination of Archduke Franz Ferdinand (which led to World War I) and the invasion of Kuwait (triggering the Gulf War), such that structural risk rises in terms of the structural composition within the political, economic, and ecological systems being disrupted. Following such cascading and systemic risk, geopolitical conflicts can become unpredictable and can cause global instability. In this complex context, the Triple Bottom Line (TBL) framework provides a practical and critical lens through which companies can address sustainability challenges, integrating economic viability, social responsibility, and environmental stewardship. However, our findings suggest that even well-established sustainability models may struggle to withstand the complexities introduced by geopolitical risks. Political volatility, shifting global alliances, and regulatory fragmentation impose structural constraints that limit companies' ability to proactively manage risk, requiring new governance models that emphasise flexibility and adaptive decision-making. The need for greater collaboration between companies, policymakers, and international institutions to improve business resilience is a key finding of this chapter. While companies can develop decentralised energy solutions, ESG-driven risk management approaches, and sustainable investment strategies, their success depends on broader geopolitical stability and institutional support. The long-term achievement of the SDGs in the face of geopolitical uncertainty requires a coordinated policy framework that aligns sustainability goals with geopolitical realities, and fosters a resilient and equitable global business environment. Ultimately, this research raises critical questions about the future of corporate sustainability in an era of persistent geopolitical risks. Are current governance and risk management strategies sufficient to navigate the uncertainties of global conflict, or do companies need to fundamentally rethink their approaches to sustainability and resilience? Addressing these challenges will be essential to ensure that companies can continue to contribute to global sustainability efforts in the face of ongoing geopolitical disruptions.

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CHAPTER 7

Concluding Remarks

Bodo E. Steiner

Abstract This book has tried to bring together multiple perspectives on sustainable development governance from countries in the European Union as well as from the Ukraine. "Bridging Governance, Public Support, Innovation, and Transparency" *(Navigating Sustainable Development Governance in Times of Polycrisis: Studies from the EU and Ukraine*) is not only aimed to inform different societal stakeholders in the sustainable development debate, from consumers, to businesses, regulators, and civil society actors, challenged with "navigating" through the multitude of risks and opportunities for achieving SDG progress.

Keywords EU · Governance · Sustainable Development Goals · Transparency · Ukraine

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B. E. Steiner and I. Makarenko (eds.), *Bridging Governance, Public Support, Innovation, and Transparency*,
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This book has tried to bring together multiple perspectives on sustainable development governance from countries in the European Union as well as from the Ukraine. "*Bridging Governance, Public Support, Innovation, and Transparency" (Navigating Sustainable Development Governance in Times of Polycrisis: Studies from the EU and Ukraine)* is not only aimed to inform different societal stakeholders in the sustainable development debate, from consumers, to businesses, regulators, and civil society actors, challenged with "navigating" through the multitude of risks and opportunities for achieving SDG progress.

The book is also a broader call for good governance, in terms of a call for safeguarding the benefits of democratic governance as they derive from the willingness to listen to stakeholder concerns about environmental sustainability and human rights, the willingness to embrace the potentials of innovative entrepreneurship, the willingness to enable transparent governance supporting service sector businesses, and the willingness to supporting businesses in their triple-bottom-line resilience challenges facing geopolitical risks.

Through this portfolio of varying perspectives on sustainable development governance, the book aims also to be a wake-up-call for readers to recall the current actual and potential benefits of democratic governance. In this sense, the book is also a call for "more Europe" at a possible inflection point in history during Spring of 2025. This "more" and "closer" Europe is not to be taken for granted anymore. It is built, naturally, on our individual and joint willingness and ability—in each EU country as well as in the Ukraine—to engage in a rational, inclusive, and constructive sustainable development governance discourse in the spirit of Habermas (1996). While it is important that we contribute with all our voices at different levels, in our private or professional capacity, whether we are internally displaced or refugees or regular citizens, we must remember the preciousness and fragility of our ability to influence this discourse and thus our destiny beyond sustainable development governance. In the words of Friedrich Hayek,

> Nothing makes conditions more unbearable than the knowledge that no effect of ours can change them; and even if we should never have the strength of mind to take the necessary sacrifice, the knowledge that we could escape if we only strove hard enough makes many otherwise intolerable positions bearable. (Hayek, 1944: 94)

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