

Justice in Soil Governance

A Critical Discourse Analysis of Stakeholders' Justice Perspectives Regarding
the Proposed EU Soil Health Law

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Abstract

Soils are of critical importance to human societies, as they provide a host of ecosystem services and harbor roughly a quarter to a third of all living things on Earth; soil degradation and biodiversity loss are pressing sustainability issues at both the global and the EU level. While soil degradation has a number of justice dimensions, there is relatively little academic work that explicitly makes the link between justice and soil governance. This thesis aims to provide a better understanding of stakeholders' justice perspectives regarding EU soil health policy and how these perspectives may relate to stakeholder coalitions and policy proposals for the EU Soil Health Law proposed in 2022.

To this end, the thesis augments the pluralistic justice framework developed by Biermann and Kalfagianni (2020) to include multispecies justice perspectives alongside liberal-egalitarianism, cosmopolitanism, the capabilities approach, libertarianism, and critical perspectives. The research follows principles of critical discourse analysis to analyze statements made by 31 stakeholders regarding EU soil policy in the context of past developments in EU soil initiatives and identify stakeholders' perspectives and policy proposals. The dimensions of justice that are considered in this analysis are subjects, spatial scales, temporal scales, causes of injustice, and justice mechanisms. Insights from the Advocacy Coalition Framework are used to supplement the analysis and gain a better understanding of coalition dynamics and their potential implications for the development of EU soil policy. The analysis was conducted on a sample of statements made by 31 out of a total of 189 stakeholders that gave feedback to the European Commission's 2022 Call for Evidence for the proposed EU Soil Health Law.

The results of this research indicate that all justice perspectives included in the analysis can be identified in statements made by the 31 stakeholders. The most common justice perspectives identified in the statements are libertarianism and liberal egalitarianism. These findings align with past developments in EU soil policy, as libertarian perspectives appear to have played a crucial role in past opposition to EU soil legislation. The analysis of stakeholder statements also identifies two main existing coalitions, one around a libertarian justice perspective and another coalition comprised mainly of civil society actors around a mixture of justice perspectives. While there are a number of policy proposals shared primarily by stakeholders within each of these two coalitions, the analysis also found policy proposals shared by stakeholders across and beyond these coalitions. The findings illustrate the potential of an analysis of justice perspectives to identify and understand stakeholder coalitions and policy proposals. They also imply that EU policymakers should consider the dominant justice perspectives and coalitions among stakeholders when trying to develop effective soil policies, as these appear to have an influence on the positions of decisionmakers from EU Member States.

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1. Introduction

1.1. Societal background and problem description

Soils are of fundamental importance to the functioning of human societies, as the myriad ecosystem services they provide range from food and many raw materials to flood prevention and carbon storage (Dominati et al., 2014; Kopittke et al., 2019). Scientists estimate that roughly 25 to 30 percent of all living things on Earth can be found in soils (Ronchi et al., 2019). Soil degradation and soil biodiversity loss are pressing sustainability problems. As estimates by the Food and Agriculture Organization of the United Nations (FAO) and others indicate, around 25 percent of soils worldwide are degraded, while pressures on soils, particularly from the intensification of agricultural production, continue to grow (Bindraban et al., 2012; FAO, 2022).

While there are many different factors contributing to the problem of soil degradation, some scholars see the root of the acceleration of many of the key pressures on soils in recent decades in the “Green Revolution” starting in the 1940s and 1950s, when there was a shift away from a past focus on balancing nutrient inputs and outputs in agriculture toward a focus on maximizing production through increases in inputs of, e.g., artificial fertilizers and pesticides (Douglas et al., 2015; Jeschke & Nauen, 2008; Kumar, 2017; Puig de la Bellacasa, 2015). While these increased inputs initially resulted in the desired growing yields, there have been a number of unintended consequences for soil health and in some cases long-term yields, which researchers have only begun to recognize and understand in recent years, particularly as they have paid increasing attention to the complexity of the effects on soil organisms (Blanco & Lal, 2008; de Lima e Silva et al., 2017; Douglas et al., 2015; Dumanski & Peiretti, 2013; Puig de la Bellacasa, 2015, 2019; Singh, 2018).

This growing scientific research into soil health and soil biodiversity has begun to serve as a foundation for, e.g., agricultural practices aimed at promoting soil health, such as no till and conservation agriculture (Dumanski & Peiretti, 2013) as well as perspectives on soil use and management that incorporate care for non-human organisms as part of “caring for human well-being” (Krzywoszynska, 2019, p. 662; cf. Puig de la Bellacasa, 2019). However, while incorporating concern for soil health and non-human organisms into management decisions appears to be crucial to ensuring long-term sustainability of soil use, these types of approaches are often also significantly more labor-intensive and more dependent on ongoing research into their effects than traditional management practices (Cassman et al., 2002; Dumanski & Peiretti, 2013).

In Europe, soil degradation problems include, among others, erosion, compaction, pollution, biodiversity loss, and loss or emission of soil carbon (European Commission, 2022). At the same time, some research suggests that soil biodiversity in healthy soils may be particularly high in temperate and arctic regions characterized by relatively low aboveground biodiversity compared to tropical regions with relatively high aboveground biodiversity (Wu et al., 2011). Therefore, just as at a global level there may be reasons to prioritize the protection of biodiversity in aboveground biodiversity hotspots such as the Amazon rainforest (cf. Mittermeier et al., 2011), these findings in soil science could indicate a need to prioritize

the protection of soil health in regions of higher natural soil biodiversity, such as temperate and arctic regions of Europe.

1.2. Soil governance

While many countries have some legislation concerning the protection of soil, there are as yet no global treaties or EU-level laws focused primarily on soil conservation (cf. Chen 2020; European Commission, 2006a; Fromherz, 2012). As Fromherz (2012) explains, the closest the global community has gotten to a treaty on soil governance is the UN Convention to Combat Desertification (UNCCD). While the UNCCD addresses desertification, one important form of soil degradation, it does not explicitly address the importance of healthy soils for life on earth, nor does it explicitly address issues of soil degradation beyond desertification. Furthermore, it focuses “primarily on desertification in Africa” (Fromherz, 2012, p. 102) and does not sufficiently address the importance of soil biodiversity and the disparate challenges faced on other continents (Fromherz, 2012; cf. Ronchi et al., 2019; Wu et al., 2011). A number of other global and international attempts at soil-health initiatives are either non-binding or “have not been adopted” (Fromherz, 2012, p. 104; cf. Montanarella, 2015).

At the EU level, there are a number of policies that address individual aspects of soil degradation. For instance, the 2003 Common Agricultural Policy (CAP) reform and, more specifically, the Good Agricultural Environmental Conditions (GAEC) standards require a reduction of soil erosion rates and the maintenance of soil organic matter and have contributed to measurably reduced rates of soil erosion in the EU. However, according to Panagos et al. (2016), a number of agricultural practices that could contribute to fulfilling these requirements, such as “the use of winter crops and plant residues” (p. 1549), are not widely implemented “because of a lack of guidance (and awareness) about their contribution to soil [health]” (p. 1549). Furthermore, while there has been a reduction in soil erosion rates, there is clear evidence that the CAP has not succeeded in halting soil erosion and degradation on EU farmland over the past two decades and may even incentivize farming practices contributing to soil degradation (IPBES, 2018; Pe’er et al., 2020).

As Chen (2020) explains, in 2006, the European Commission (EC) proposed a Soil Framework Directive, novel legislation intended to protect soils at the EU level. In 2014, this proposed directive was ultimately withdrawn in large part due to strong objections voiced by Germany, the UK, France, Austria, and the Netherlands. Most of these objections centered around beliefs that this legislation would be too restrictive or too costly or burdensome to implement (Chen, 2020). In 2021, the EC adopted the EU Soil Strategy for 2030 as part of the European Green Deal, and in 2022 it published a Call for Evidence for a new proposed EU Soil Health Law (EC, 2022). While the consultation and the impact assessment for this proposed law have not yet been published, the documents published since 2021 and feedback given on the Call for Evidence in 2022 can already give some indication of how the EU’s approach to soil governance has evolved since 2006 as well as of current stakeholders’ perspectives (cf. EC, 2022).

1.3. Soil degradation and justice

This thesis, as any academic work concerning the intersection between sustainability issues and questions of justice, is faced with the difficulty of defining and using the term and concept of justice when there is neither a social nor a scientific consensus on what justice means or should entail (cf. Biermann & Kalfagianni, 2020; Byskov et al., 2021). As this research aims to apply a *pluralistic* justice framework to statements made by stakeholders in European soil governance, I have decided to start with only a general definition of justice which can be found in the Merriam Webster dictionary: “the maintenance or administration of what is just especially by the impartial adjustment of conflicting claims or the assignment of merited rewards or punishments” (“Justice,” 2023). The thought process behind this choice, including some consideration of limitations in contrast to, for example, applying an environmental justice lens, will be set out in greater detail in Chapter 2 of this thesis. Chapter 2 will also include definitions of the six justice perspectives that the analysis seeks to identify in statements made by stakeholders, namely liberal-egalitarianism, cosmopolitanism, the capabilities approach, libertarianism, critical perspectives, and multispecies justice (cf. Biermann & Kalfagianni, 2020; Celermajer et al., 2020).

Though perhaps not as apparent as with other global sustainability issues such as climate change, the problems of soil degradation and biodiversity loss have a number of justice dimensions and implications. For one, healthy soil is a resource that can take decades or even centuries to renew (Li et al., 2021). Thus, soil degradation usually has an intergenerational justice dimension, as damage that is inflicted upon soils in the present is likely to harm future generations without significantly benefitting them (cf. Burch et al., 2019). Furthermore, soil degradation is frequently less of a localized issue than one might first assume and thus an issue of international justice (cf. Burch et al., 2019), as many of the causes and effects of soil degradation are of a transboundary nature (EC, 2022). For instance, agricultural runoff from highly fertilized soils has contributed to significant increases in eutrophication and related damage to water quality in a number of transnational bodies of water in recent decades (Kerr et al., 2016; Rinaudo et al., 2005).

Additionally, soil degradation can be an issue of intersectional justice, or justice between different groups in society (cf. Burch et al., 2019). Wealth inequality and rising global demand for certain crops, particularly for biofuels, may contribute to soil degradation, as farmers are incentivized to either expand agricultural land or grow crops in unsustainable ways to generate profit at the expense of the long-term health and fertility of soils (cf. Ceddia, 2020; DeLong et al., 2015). This potentially makes soil degradation an issue of intersectional justice, as generating profits or fueling energy-intensive lifestyles of some may come at the expense of producing food in a soil-friendly and affordable manner for others. Finally, soil degradation can also be framed as an issue of interspecies justice. In recent years, interspecies justice perspectives, essentially the consideration of non-human species as potential subjects of justice, have become more common in academic approaches to justice (cf. Burke, 2022). From this perspective, addressing justice dimensions of soil degradation does not only require

considering the harm it causes to humans, but also the harm it causes to other species, in particular those that are lost in processes of soil degradation (cf. Celermajer & O'Brien, 2021).

1.4. Scientific background and research gap

There is a growing field of research into justice dimensions of earth system governance (cf. Dirth et al., 2020; Kalfagianni, 2015; Klinsky et al., 2017). As Klinsky et al. (2017) explain in the context of climate policy, research into “the normative dimensions of climate policy” (p. 170) and other areas of sustainability governance is important, because it makes unequal impacts of sustainability issues and policies visible, helps to explain why political actors and stakeholders act in certain ways, and can help to strengthen demands for stronger sustainability governance. Following the reasoning of Klinsky et al. (2017), arguments for researching “normative dimensions of climate policy” (p. 170) also apply to soil governance. Much as in the case of climate change, those benefitting most from activities that lead to soil degradation are often not those who suffer the most from it (cf. Ceddia, 2020; Celermajer & O'Brien, 2021; Klinsky et al. 2017). Therefore, researching justice dimensions of soil governance may, for instance, help to uncover inequalities in who causes and is affected by soil degradation and needs for stronger soil governance (cf. Klinsky et al., 2017).

So far, there is relatively little academic work that explicitly makes the link between justice and soil governance. One example is Puig de la Bellacasa's 2019 article in which she points out the importance of soil in the context of larger movements toward eco-social justice and explores the potential that growing understandings and acknowledgements of humans' interconnectedness with soil may have in improving human relationships with the more-than-human world. Similarly, Celermajer and O'Brien's 2021 article “Alter-transitional justice: Transforming unjust relations with the more-than-human,” focuses on the potential for considering non-human entities such as soil and its organisms as subjects of justice, while acknowledging the fact that this is still a very uncommon perspective. In an article from 2023, Lyons shows how Indigenous and other local Colombian understandings of human-nature relationships are being incorporated into Colombia's process of transitional justice and addresses some of the opportunities and challenges that can arise when incorporating more-than-human subjects of justice, including soils, into transitional justice processes. All three of these articles address the importance and potential benefits of applying a critical and/or multispecies justice lens (cf. Biermann & Kalfagianni, 2020; Celermajer et al., 2021) to issues of soil or land degradation.

Past research on European soil governance, such as that by Chen (2020) on reasons for the withdrawal of the proposed European Soil Framework Directive in 2014, does not explicitly address justice considerations. However, some of the listed reasons for countries' opposition to the directive can give insight into the countries' justice perspectives. For example, the focus on the cost of implementation could be interpreted as a focus on present subjects of justice as opposed to future generations (cf. Chen, 2020; Solum, 2001). Initial insights into the feedback given to the 2022 Call for Evidence for an EU Soil Health Law show that beyond political decisionmakers there are five main categories of stakeholders that have

publicly expressed interest in the development of such a law, namely NGOs, business associations, companies, research institutions, and public authorities. Based on a first perusal of the feedback from 2022, it is evident that there are a wide range of justice perspectives among these stakeholders in EU soil governance. While most of the companies and business associations appear to hold a relatively strong libertarian perspective, favoring limited to no EU soil regulation or EU-level redistribution of costs and benefits, the NGOs, for example, appear to have more mixed justice perspectives, favoring stronger legislation aimed at protecting soil health but not giving a clear indication of favoring one particular justice perspective over another. Analyzing these statements through the lens of a pluralistic justice framework based on Biermann and Kalfagianni (2020) can help to gain a better understanding of the justice dimensions of EU soil policy, recognize existing and potential coalitions between stakeholders, and identify ways in which these perspectives may contribute to shaping EU soil governance.

In the context of the various EU soil health initiatives since 2006 mentioned in the subchapter on soil governance, analyzing different stakeholders' justice perspectives relating to soil governance can help to better understand their motivations, forming of coalitions, and policy proposals for EU-level soil governance. A focus on one approach to justice over others in governance can have wide-reaching implications for the content and effects of policies. For instance, from a libertarian perspective, policies are just when they protect "the rights of individuals to liberty, ownership and free exchange" (Biermann & Kalfagianni, 2020). Therefore, stakeholders with a libertarian perspective are likely to oppose soil policies that are perceived as constraints on landowners' liberty or as imposing high administrative or financial burdens on landowners (cf. Chen, 2020). In contrast, stakeholders with more of a cosmopolitan justice perspective are likely to place less of an emphasis on the protection of the rights and freedoms of individual landowners and more of an emphasis on protecting soil as a prerequisite for fulfilling the needs of all humans (cf. Biermann & Kalfagianni, 2020). Analyzing stakeholders' justice perspectives can help to identify dominant framings of justice in governance and how these framings may influence policy.

1.5. Research aim and research questions

As global and EU-level soil governance has been an issue of contention in the past, understanding the justice perspectives of stakeholders in the proposed EU Soil Health Law can help to gain a clearer understanding of existing and potential stakeholder coalitions and policy preferences regarding the issues of soil degradation and soil governance. Therefore, the aim of this research is to provide a better understanding of stakeholders' justice perspectives regarding the proposed EU Soil Health Law and how these perspectives may be reflected in stakeholder coalitions and policy proposals regarding the development of EU soil policy, by conducting a critical discourse analysis of major stakeholders' statements on the current EU soil health initiatives in the context of developments in EU soil policy since 2006.

Main research question:

What are the justice perspectives of major stakeholders in current EU soil health initiatives and how do these relate to their coalitions and policy proposals?

Sub-questions:

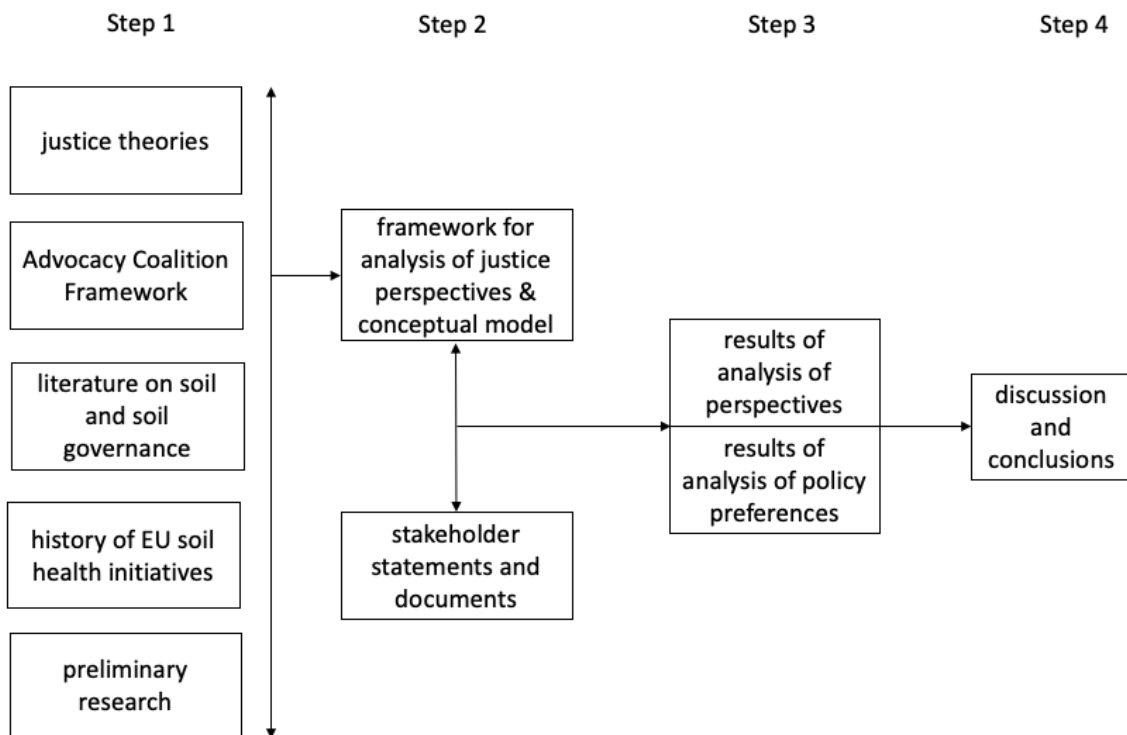
1. *What are the justice perspectives of major stakeholders in the EU Soil Health Law proposed in 2022 and is there evidence of existing or potential coalitions based on these perspectives?*
2. *What types of policy proposals do the stakeholders favor regarding soil health and how do these appear to relate to their justice perspectives?*

Developments in EU soil health policy since 2006 will be presented in a background chapter to give context for the analysis of stakeholders' recent statements, perspectives, and policy proposals. Justice perspectives and policy proposals of major stakeholders will be identified in a critical discourse analysis using an extended version of Biermann and Kalfagianni's planetary justice framework (2020) and guiding questions developed based on this framework and additional literature on justice theories.

1.6. Research design

Figure 1 is a schematic representation of the research design. The framework for the critical discourse analysis of justice perspectives was developed based on a review of justice theories and literature on soil governance. After summarizing broad developments in EU soil policy since 2006, I applied the framework by conducting a critical discourse analysis of stakeholder statements and documents to identify stakeholders' justice perspectives and policy proposals. Conclusions were drawn based on the results of the critical discourse analysis in the context of developments in EU soil initiatives from 2006 till 2022.

Figure 1: Research design



1.7. Societal relevance

By examining different stakeholders' justice perspectives and how these are reflected in their coalitions and policy proposals regarding EU soil policy, this research helps to illuminate justice dimensions of soil degradation and soil governance. This can contribute to making rationales for different approaches to soil governance more transparent and potentially help stakeholders to identify and communicate justice dimensions of soil policy, which could, in turn, help in forming coalitions around possible common justice positions and demands for relevant aspects of soil governance. Furthermore, making justice dimensions of soil policy clearer and more visible may help to galvanize interest in soil governance in groups and individual citizens that may be impacted by soil policies but may not yet be interested or involved in debates around soil governance, as soil degradation is an important issue that has not yet garnered widespread public attention (cf. Fromherz, 2012).

2. Theory and concepts

This chapter presents the theories and concepts that are relevant to the analysis conducted for this thesis. In the first subchapter, the concept of justice is discussed and defined, and the pluralistic justice framework developed by Biermann and Kalfagianni (2020) is introduced. In the second subchapter, the justice perspectives and dimensions that are included in the analysis are presented and operationalized. The third and fourth subsections briefly define the terms of soil governance and stakeholders, as these are central to the analysis. Finally,

the fifth subchapter gives an overview of the Advocacy Coalition Framework and its relevance to the analysis at hand.

2.1. Justice

Justice, equity, and equality are becoming increasingly common terms in and subjects of sustainability governance and research (Biermann & Kalfagianni, 2020; Intergovernmental Panel on Climate Change, 2022; Klinsky et al., 2017). However, even in areas of sustainability governance where justice is not yet an explicit part of the dominant discourse, as is the case for soil governance, actors' justice perspectives can affect their understandings of sustainability issues and their demands for policies, which can in turn influence the direction of policies and governance (cf. Biermann & Kalfagianni, 2020; Celermajer & O'Brien, 2021; Chen, 2019).

As Biermann and Kalfagianni (2020) explain, when researching differing justice perspectives, it is difficult to start out with an underlying definition of justice, as many if not most definitions already indicate a particular interpretation of justice. In line with their reasoning, I have used a more general definition of justice as a starting point for this research, namely the following which can be found in the Merriam Webster dictionary: "the maintenance or administration of what is just especially by the impartial adjustment of conflicting claims or the assignment of merited rewards or punishments" ("Justice," 2023). This definition broadly indicates that justice is concerned with ensuring a fair balance between conflicting interests, while also not defining what is "just" and thereby indicating that definitions of what is "just" can vary.

However, in the context of environmental and sustainability issues, as in many other issue areas such as, e.g., education (cf. Hytten & Bettez, 2011), it is important to recognize and acknowledge that the presumption underlying this research that justice is such a concept which can be imbued with different interpretations by different groups of people is not shared by everyone. For many people, both in academia and in society at large, understandings of terms such as "social justice" and "environmental justice" go far beyond the relatively neutral dictionary definition cited above and, while not necessarily having one clear definition, are far from politically neutral in their meaning.

The difference between the approach chosen in this thesis, based on Biermann and Kalfagianni's 2020 framework, and some of these other academic approaches to justice becomes clear when one compares Biermann and Kalfagianni's framework to the approach chosen in the book *Environmental Justice: Key Issues* (Coolsaet, 2021). On the one hand, Coolsaet's introduction to the book acknowledges that there is no "single, straightforward definition of environmental justice" (p. 2) and that there are multiple "common theories and concepts used by scholars to define the 'justice' of environmental justice" (p. 2). On the other hand, the book's introduction as well as its overall content imply a clear preference for conceptualizations of environmental justice that understand injustices as rooted in power imbalances and historic systems of exploitation and oppression. When comparing this approach to that of Biermann & Kalfagianni (2020), this means that most of the authors that contributed to *Environmental Justice: Key Issues* (Coolsaet, 2021) apply justice lenses that

Biermann & Kalfagianni would categorize as “critical perspectives”, whereas the perspectives of liberal egalitarianism and libertarianism, though these exact terms are rarely used in the book, are mostly viewed as dominant paradigms that ought to be critiqued.

An advantage of the main approach taken in *Environmental Justice: Key Issues* is that critical justice perspectives are largely compatible with the interpretation of justice underlying the environmental justice movement that began in Black American communities in the United States in the 1980s in the tradition of the civil rights movement and therefore closer to societal understandings of “environmental justice” (cf. Coolsaet, 2021, p. 6). Furthermore, as the name “critical perspectives” implies, these conceptualizations of justice tend to lend themselves to use in Critical Discourse Analysis, one of the methods this thesis seeks to apply, as they center critiques of power imbalances and systems of oppression (cf. Blommaert & Bulcaen, 2000).

However, a disadvantage of primarily applying critical justice lenses, or any one justice lens for that matter, in contrast to a more pluralistic approach such as that proposed by Biermann & Kalfagianni (2020) is a potential tendency to generate results focused around a normative duality between critique and that which is to be critiqued, as opposed to the empirical identification of a possibly more diverse field of justice perspectives, policy proposals, and existing or potential coalitions (cf. Kalfagianni, 2022). While I also aim to critically discuss possible motivations for and implications of holding certain justice perspectives as opposed to others, for the purposes of identifying existing perspectives among stakeholders in EU soil governance I believe it is more useful to apply a pluralistic justice framework.

This choice to focus on identifying potentially diverse justice perspectives among stakeholders in EU soil governance is also why I have chosen to apply an adapted version of Biermann & Kalfagianni’s pluralistic justice framework (2020) as opposed to, for example, the multidimensional framework for assessing equity developed by McDermott et al. (2013) or the multidimensional injustice framework applied by Byskov et al. (2021). Both of these frameworks also enable the identification of different dimensions of equity, justice, or injustice. However, they are more concerned with identifying or assessing concrete instances of injustice or inequity in a given issue area than with identifying the different perspectives of stakeholders or actors in a given issue area, which is the focus of this thesis.

2.2. Justice perspectives

As addressed in the previous subchapter, justice can be defined and interpreted in many ways. Based on different philosophical traditions within justice discourses, researchers have developed frameworks to identify and differentiate between different framings and interpretations of justice and related concepts, such as equity (cf. Biermann & Kalfagianni, 2020; McDermott et al., 2013). This research will use an extended version of the planetary justice framework developed by Biermann and Kalfagianni (2020) to identify different stakeholders’ justice perspectives. Biermann and Kalfagianni’s reasoning for developing this research framework was to provide a framework that can be used to identify major justice

perspectives as part of an analysis without necessarily giving preference to one over the other. This enables a more neutral analysis that acknowledges the existence of different justice perspectives (Biermann & Kalfagianni, 2020; Kalfagianni, 2022).

Biermann and Kalfagianni (2020) included five major ethical traditions in their planetary justice framework, namely liberal egalitarianism, cosmopolitanism, the capabilities approach, libertarianism, and critical perspectives. While Biermann and Kalfagianni named their framework “planetary justice framework” in part to acknowledge that nonhuman entities can also be considered as potential subjects of justice, the major ethical traditions that they include in the framework are historically focused on humans as primary subjects of justice. Biermann and Kalfagianni (2020) addressed this limitation of their framework as a practical decision, while themselves arguing that their framework could be extended to include, for example, a multispecies-justice perspective.

The dimensions of justice that I have chosen to include in the analytical framework for this thesis and that will largely be used as categories to differentiate between and identify the different justice perspectives are based on my reading of Biermann & Kalfagianni’s planetary justice research framework combined with insights on dimensions of justice from a couple of other sources. These include subjects of justice, spatial scales, temporal scales, main causes or instances of injustice, and justice mechanisms (Biermann & Kalfagianni, 2020; Kalfagianni, 2022; Campos, 2018). I have decided to include the dimension of temporal scales, because, based on current rates of degradation and the fact that soils can be understood as non-renewable, considerations of intergenerational justice could be an important part of debates around soil justice. However, as the following subchapters will show, this dimension does not lend itself to identifying a particular justice perspective, because all justice perspectives may include intergenerational considerations to some degree but also have some difficulties in incorporating them into a coherent theory of justice. Therefore, the purpose of including this dimension in the analysis is not to aid in the identification of particular justice perspectives but rather to explore the extent to which the stakeholders touch on intergenerational dimensions and to identify potential patterns in which stakeholders address these dimensions.

One could technically expand the definitions of, for instance, the capabilities approach to include nonhuman subjects of justice (cf. Nussbaum, 2007). However, given that this would be a radical reinterpretation of the more common versions of this justice perspective and given that multispecies-justice perspectives extend beyond the capabilities approach, I argue that it makes more sense to include multispecies justice as a sixth, separate category of justice perspectives (cf. Celermajer & O’Brien, 2021; Celermajer et al., 2021). An overview of an operationalization of the justice perspectives based on the results of a literature review on the five major ethical traditions included in Biermann and Kalfagianni’s (2020) framework as well as on multispecies justice can be found in Table 1. This review is expanded upon in the following subchapters. The justice framework which builds on the results of this literature review and includes an overview of key dimensions of all six justice perspectives is presented in Table 2.

2.2.1. Liberal egalitarianism

Liberal egalitarianism, a theory of justice which was developed in large part by John Rawls, is focused on justice within modern democratic nations (Clements, 2015). Therefore, the main subjects of justice considered by this perspective are citizens of nation states as individuals, although this perspective can, to a degree, be extended to relations between nation states as well (Clements, 2015; Kalfagianni, 2022; Rawls, 1971). Liberal egalitarianism according to Rawls is defined by two key principles. The first is that “each person is to have an equal right to the most extensive basic liberty compatible with a similar liberty for others” (Rawls, 1971, p. 60). The second is that “inequalities are to be arranged so that they are both (a) reasonably expected to be to everyone’s advantage, and (b) attached to positions and offices open to all” (Rawls, 1971, p. 60). This second principle is one formulation of what is often called the difference principle, namely that inequalities, for example in resource distribution, are only considered to be just or acceptable if they are utilized to help those that are least well-off (Ehresman & Okereke, 2015; Kalfagianni, 2022).

While liberal egalitarianism places an emphasis on the freedom and responsibility of the individual, it also recognizes that individuals do not have complete power over their fortunes, as they are arbitrarily born into potentially unequal circumstances (Cappelen & Tungodden, 2006; Rawls, 1971). Standard liberal egalitarianism views nation states as the default level at which justice can be enacted, as citizens within (liberal democratic) societies can, to some degree, voluntarily agree on principles and mechanisms of justice that should apply to the entire society (Biermann & Kalfagianni, 2020; Rawls, 1971). There have been some attempts to expand liberal egalitarianism to cover justice at a global level, and cosmopolitanism, which will be presented in the following subchapter, can partly be seen as a result of such attempts (Ehresman & Okereke, 2015; Heyd, 2009). However, for the purposes of this analysis, a perspective will be identified as liberal egalitarian only if it is concerned with justice at the national or the EU level.

On a temporal scale, liberal egalitarianism can extend beyond justice in the present to intergenerational concerns. In such an interpretation of liberal egalitarianism, just laws and institutions ensure that future generations are not disadvantaged by the liberties and rights granted to present generations (Campos, 2018). However, as in most if not all theories of justice, the degree to which intergenerational justice fits into the larger theory and can actually be implemented is controversial and continues to be debated (Heyd, 2009; cf. Steiner & Vallentyne, 2009).

From a liberal egalitarian perspective, the main causes or instances of injustice are inequalities in wealth, income, and political participation based on a combination of chance circumstances and potentially deliberate actions that are largely out of the control of the affected individuals and “are not to the benefit of all” (Rawls, 1971, p. 62). The main mechanism of justice proposed within liberal egalitarianism is a welfare state aimed at benefitting the most disadvantaged members of a society and thereby working towards greater equality (Biermann & Kalfagianni, 2020; Rawls, 1971).

2.2.2. Cosmopolitanism

Cosmopolitanism is a group of theories that argue for varying degrees of “global distributive justice” (Armstrong, 2012, p. 41; cf. Biermann & Kalfagianni, 2020). Charles Beitz, Darrel Moellendorf, Thomas Pogge, and Simon Caney are four of the most prominent academic proponents of cosmopolitan perspectives (cf. Armstrong, 2012; Beitz, 2005; Biermann & Kalfagianni, 2020). These theories are divided into two sub-groups, “relational and non-relational approaches” (Biermann & Kalfagianni, 2020, p. 3). Essentially, the non-relational approaches take the perspective that the importance of justice or equality on a global scale should not be derived from the existence of a global economy or international relations but from the inherent equality of human beings. On the other hand, relational approaches base justice claims on the existence of interactions within a global society, much as liberal egalitarianism bases justice claims on a society within a state (Armstrong, 2012; Biermann & Kalfagianni, 2020). In either case, the subjects of justice are primarily individual humans on a more or less global scale (Beitz, 2005; Biermann & Kalfagianni, 2020). Causes of injustice in cosmopolitanism are considered to be either naturally occurring inequalities in the distribution of resources or inequalities resulting from the structures and functioning of global systems and institutions. The main mechanism of justice proposed by these theories is global governance aimed at a fair redistribution of resources (Armstrong, 2012; Biermann & Kalfagianni, 2020).

While considerations of intergenerational justice do not appear to be central to most writings on cosmopolitanism, as with liberal egalitarianism there is the potential for dimensions of intergenerational justice to be considered, but there are also certain limitations to the inclusion of intergenerational dimensions of justice (cf. Heyd, 2009). From a relational perspective, there is the potential to consider intergenerational justice based on the existence of effects of past or present generations on present or future generations, while non-relational approaches could consider intergenerational dimensions purely on the basis of equality between human beings of any generation (cf. Armstrong, 2012; Biermann & Kalfagianni, 2020).

2.2.3. Capabilities approach

The capabilities approach presents a perspective on justice that goes beyond the focus on the distribution of material resources common in liberal egalitarianism and cosmopolitanism to include considerations of differences in people’s ability to live the life they wish to live in their society. The main writers identified as developing the capabilities approach are Amartya Sen and Martha Nussbaum (Biermann & Kalfagianni, 2020; Gasper, 1997).

While the capabilities approach was originally developed with a focus on humans as subjects of justice, Nussbaum and others have begun to expand it to include animals as subjects, pointing to parallels between arguments for justice based on protecting humans’ capabilities to live their lives in certain ways and protecting to some degree the capabilities of animals to live as they would without human interference (Armstrong, 2014; Nussbaum, 2007). The capabilities approach also appears to be well-suited to include considerations of

intergenerational justice, e.g., by including considerations of the effects of current environmental degradation on the ability of future generations to live “a life of decent quality” (Page, 2007, p. 465).

2.2.4. Libertarianism

Libertarianism, which is also sometimes referred to as classical liberalism, is a theory of justice and political philosophy that emphasizes the importance of “the rights of individuals to liberty, ownership and free exchange” (Biermann & Kalfagianni, 2020; cf. Brennan, 2018). An important difference between libertarianism and the aforementioned approaches is that it does not accept an (involuntary institutional) redistribution of resources between individuals (e.g., through taxes) as just if a given distribution of resources was reached by legal means (Biermann & Kalfagianni, 2020; Cappelen & Tungodden, 2006). The main author that contributed to the development of libertarianism was Robert Nozick (Biermann & Kalfagianni, 2020; Brennan, 2018). However, the principle of “self-ownership,” which is central to the libertarian theory of justice, is sometimes traced back to John Locke (Arneson, 1991), and a number of arguments that are common within the libertarian perspective can be attributed to a belief in the superiority of free-market capitalism as a central organizing principle of society, which can be traced back to the writing of Adam Smith and is also a prominent conclusion in the work of Friedrich Hayek (cf. Arneson, 1991; Brennan, 2018; Jahan & Mahmud, 2015; Lindsay, 2015).

The main subjects of justice from the libertarian perspective are individual human beings (Arneson, 1991; Biermann & Kalfagianni, 2020; Nozick, 1973). As libertarianism is particularly concerned with protecting the exercise of economic and property rights, particular emphasis is often placed on individuals in their (actual or potential) roles as owners of or stakeholders or investors in companies or businesses within market economies (Brätland, 2007; Brennan, 2018; Freeman, 2005).

As libertarianism places its focus on the rights of individuals to ownership and free trade, libertarians often call for free trade at a global scale and place less of an emphasis on the role of national governments in ensuring justice than, for example, liberal egalitarians. At the same time, they tend to oppose any significant role “of global institutions and international organizations” (Biermann & Kalfagianni, 2020, p. 5) in redistribution at least as adamantly as they oppose institutional redistribution and large government at a national level (cf. Brennan, 2018; Nozick, 1973).

Intergenerational justice in the sense in which it is understood by, e.g., liberal egalitarians or proponents of the capabilities approach is usually criticized from a libertarian perspective, as the libertarian focus tends to be drawn to the ways in which attempts to protect the rights of future generations result in limiting the rights of present-day individuals (Brätland, 2007; Solum, 2001). Based on libertarianism’s focus on the rights of individuals to ownership and free trade, government interference into these rights, for example in the form of taxation or any regulation that is perceived as limiting individuals’ rights to ownership and free trade, is seen as the main cause of injustice (Biermann & Kalfagianni, 2020; Brätland,

2007; Nozick, 1973). Consequently, “free markets unfettered by governmental oversight and control” (Biermann & Kalfagianni, 2020, p. 7) are considered to be the main mechanism of justice from a libertarian perspective (cf. Brennan, 2018; Nozick, 1973).

However, another feature of libertarianism, particularly in more recent years, is a preference for policies and justice mechanisms that are supported by empirical research (Brennan, 2018). This feature of libertarianism has sparked a debate about whether certain types of government intervention may be more acceptable than others from a libertarian perspective if research indicates that they can help to address empirically proven instances of market failure (Arad & Rubinstein, 2018; Brennan, 2018; Cowen & Trantidis, 2021; Korobkin, 2009). The question of which types of interventions can be considered as indicative of libertarianism is relevant to this thesis, because a first perusal of stakeholder statements indicates that a large proportion of the stakeholders who appear to have a libertarian perspective also advocate for certain types of government intervention. From this libertarian perspective, the most commonly debated policy types are “soft” policy instruments, such as informational or educational interventions, nudging, and incentives, all of which are sometimes called “libertarian paternalism”. However, there appears to be a certain consensus on the view that while nudging and classic soft policy instruments are, to some degree, compatible with a libertarian perspective, economic incentives generally are not (Arad & Rubinstein, 2018; Cowen & Trantidis, 2021; Hansen, 2016; Jones et al., 2010; Wilkins, 2013). Therefore, in the analysis for this thesis, calls for, e.g., classic soft policy instruments from stakeholders with a generally libertarian perspective will be treated as indications of a libertarian perspective while calls for EU-level economic incentives will be treated as a policy proposal that is not a defining dimension of a libertarian justice perspective, even if it is primarily found among stakeholders with a mostly libertarian perspective (cf. Clements, 2015).

2.2.5. Critical perspectives

Critical perspectives are a category of justice perspectives that are characterized by their focus on structural, historical, and systemic conditions as root causes of injustice (Biermann & Kalfagianni, 2020; Prosser, 2020). In these perspectives, humans as subjects of justice cannot be considered separately from the social constructions of class, race, and/or identity that contribute to injustices (Biermann & Kalfagianni, 2020; Fraser, 2000). In terms of spatial scales, critical perspectives consider global and international structural causes of injustice as important and therefore also see a necessity for international and global justice mechanisms (Biermann & Kalfagianni, 2020; Fraser, 2005). While considerations of intergenerational justice may not necessarily be central to critical perspectives, historical dimensions are usually a key component of critical perspectives’ understanding of causes of injustice (Fraser, 2008; Prosser, 2020).

2.2.6. Multispecies justice

Multispecies justice is a newer perspective on justice that includes non-human beings as subjects of justice. There are a number of reasons why most other perspectives do not

consider non-human beings, such as animals, as subjects of justice, e.g., because they are generally considered to be incapable of having concepts of justice or injustice themselves (Celermajer & O'Brien, 2021). However, as mentioned in the subchapter on the capabilities approach, in recent years, a number of scholars have begun to consider and emphasize reasons for multispecies-justice perspectives. For instance, they have drawn attention to parallels between arguments used to justify the capabilities approach to justice between humans and characteristics of non-human beings, species, or ecosystems (Celermajer & O'Brien, 2021; Celermajer et al., 2021; Nussbaum, 2007). Multispecies justice perspectives have also been greatly influenced by indigenous worldviews, which often make less of a distinction between human and non-human beings than European worldviews (Celermajer et al., 2020). Depending on the specific approach to multispecies justice, temporal scales include both a focus on the present and intergenerational concerns (Celermajer et al., 2021). Proposed mechanisms of justice include, in particular, mechanisms of justice drawn from the capabilities approach and critical perspectives (Celermajer & O'Brien, 2021; Celermajer et al., 2021; Nussbaum, 2007).

Table 1: Operationalization of the six justice perspectives based on a literature review

Justice perspectives	Operationalization	Citations
Liberal egalitarianism	<ul style="list-style-type: none"> • <i>Defining aspects:</i> Focus on justice within modern democratic nations • <i>Main subjects:</i> Citizens of nation states • <i>Temporal dimensions:</i> May include intergenerational concerns • <i>Main mechanism of justice:</i> Welfare state aimed at benefitting the most disadvantaged members of society 	<p>(Clements, 2015) (Clements, 2015; Rawls, 1971)</p> <p>(Campos, 2018) (Biermann & Kalfagianni, 2020; Rawls, 1971)</p>
Cosmopolitanism	<ul style="list-style-type: none"> • <i>Defining aspects:</i> Varying degrees of “global distributive justice” (Armstrong, 2012, p. 41) • <i>Subjects:</i> Humans worldwide • <i>Causes of injustice:</i> Either naturally occurring inequalities in the distribution of resources or inequalities resulting from the structures and functioning of global systems and institutions • <i>Main mechanism:</i> Global governance aimed at fair redistribution of resources 	<p>(cf. Biermann & Kalfagianni, 2020)</p> <p>(Armstrong, 2012; Biermann & Kalfagianni, 2020)</p>
Capabilities approach	<ul style="list-style-type: none"> • <i>Defining aspects:</i> Includes considerations of differences in peoples’ ability to live the life they wish in a society • <i>Subjects:</i> Mainly humans worldwide, though some have begun to expand the approach to include animals • <i>Temporal dimensions:</i> Well-suited to include considerations of intergenerational justice 	<p>(Biermann & Kalfagianni, 2020; Gasper, 1997)</p> <p>(Armstrong, 2014; Nussbaum, 2007)</p> <p>(Page, 2007)</p>
Libertarianism	<ul style="list-style-type: none"> • <i>Defining aspects:</i> Emphasizes the importance of “the rights of individuals to liberty, ownership and free exchange” • <i>Temporal dimensions:</i> Intergenerational justice often criticized, as resulting limitations of the rights of present-day individuals are emphasized 	<p>(Biermann & Kalfagianni, 2020, p. 4; cf. Brennan, 2018; Cappelen & Tungodden, 2006)</p> <p>(Brätland, 2007; Solum, 2001)</p>

<p>Critical perspectives</p>	<ul style="list-style-type: none"> • <i>Defining aspects:</i> focus on structural, historical, and systemic conditions as root causes of injustice • <i>Subjects:</i> humans, who cannot be considered separately from social constructions of class, race and/or identity • <i>Spatial scales:</i> emphasis on global and international structural causes of injustice and mechanisms of justice • <i>Temporal dimensions:</i> importance of historical dimensions of causes of injustice 	<p>(Biermann & Kalfagianni, 2020; Prosser, 2020)</p> <p>(Biermann & Kalfagianni, 2020; Fraser, 2000)</p> <p>(Biermann & Kalfagianni, 2020; Fraser, 2005)</p> <p>(Fraser 2008; Prosser, 2020)</p>
<p>Multispecies justice</p>	<ul style="list-style-type: none"> • <i>Defining aspects and subjects:</i> inclusion of non-human beings as subjects of justice • <i>Temporal scales:</i> May include considerations of intergenerational justice • <i>Proposed mechanisms:</i> vary, but some drawn from the capabilities approach and critical perspectives 	<p>(Celermajer & O’Brien, 2021; Celermajer et al., 2021; Nussbaum, 2007)</p> <p>(Celermajer et al., 2021)</p> <p>(Celermajer & O’Brien, 2021; Celermajer et al., 2021; Nussbaum, 2007)</p>

Table 2: Justice framework

Dimensions of justice	Liberal egalitarianism	Cosmopolitanism	Capabilities approach	Libertarianism	Critical perspectives	Multispecies justice
<i>Subjects</i>	Human individuals within states/societies	Human individuals worldwide	Humans worldwide	Human individuals, particularly in their roles as property or business owners	Humans within social structures of class, race, identity	More than humans
<i>Spatial scales</i>	Largely national	Global	Global	Largely global	Global	Planetary
<i>Temporal scales</i>	Possibility of being intergenerational	Possibility of being intergenerational	Possibility of being inter-generational	More of a focus on the present, can include limited intergenerational dimensions	Historical dimensions	Possibility of being inter-generational
<i>Main causes of injustice</i>	Inequality in income, wealth, and political participation	Global inequality in income, wealth, and distribution of benefits and burdens	Lack of conditions for human flourishing	Government overreach	Systemic/ structural inequalities	Systemic inequalities
<i>Mechanisms</i>	National welfare state	Global governance aimed at redistribution; strong public institutions	Global / decentralized systems of support aimed at advancing human dignity	Global free markets	Abolishing exploitative structures at the national and global levels	Vary, but often include elements of capabilities approach and / or critical perspectives extended to non-humans

Note: Based largely on Biermann and Kalfagianni (2020), extended based on Celermajer and O’Brien (2021) and Catalano and Waugh (2020), structure inspired by Fairclough (2013)

2.3. Soil governance

For the purposes of this research project, EU-level soil governance is defined as official EU-level documents explicitly and primarily concerned with “governing or overseeing the control and direction of” (“Governance,” 2023) soil management and soil health in the EU (cf. Chen, 2020; EC, 2006a, 2022).

2.4. Stakeholders

While the term stakeholder can be used in different ways, the general definition of stakeholders referred to in this research project are those that are “involved in or affected by” (“Stakeholder,” 2023) EU-level soil governance. More particularly, the stakeholders whose justice perspectives will be analyzed in this research project will be a selection of those stakeholders that gave feedback to the EU Call for Evidence for the proposed Soil Health Law in early 2022 (EC, 2022).

2.5. Advocacy Coalition Framework

As part of the aim of this research is to identify potential or existing coalitions based on stakeholders’ statements, justice perspectives, and policy proposals and to discuss potential consequences of these coalitions and perspectives for EU soil governance, the Advocacy Coalition Framework (ACF) is a useful lens for explaining possible patterns in stakeholder statements and their implications for soil governance. The ACF is a “theory of the policy process” (Jenkins-Smith & Sabatier, 1994, p. 175), which was primarily developed to analyze and explain processes of policy change within a given policy subsystem over time spans of at least a decade. The central aspect of the ACF that goes beyond the scope of this research is an in-depth analysis of development and changes within and outside the policy subsystem over a decade or more that can help to understand and identify key reasons for policy change (Jenkins-Smith & Sabatier, 1994). While the first part of the analysis will give an overview of the main developments in EU soil policy between 2006 and 2022, this will primarily serve to give context to the analysis of stakeholders’ justice perspectives and policy proposals and will not be able to provide the type of in-depth analysis into policy processes that a comprehensive application of the ACF would entail.

However, the basic assumption of the ACF that actors in a policy subsystem have a tendency to form advocacy coalitions around shared beliefs will serve as a lens to help identify and characterize potential coalitions around shared justice perspectives and policy proposals. Furthermore, there are particular elements of the ACF that may be useful in interpreting and discussing the results of the analysis and their implications for EU soil governance. For example, the “devil shift” is a phenomenon that is often observed between coalitions, where “each coalition views the others as more evil and more powerful than they probably are” (Sabatier, 1998, p. 110). As a devil shift can negatively influence the ability of coalitions to change over time or to resolve conflicts, the presence or absence of evidence of a devil shift in stakeholder statements could have implications for the future of EU soil policy (Fischer et al., 2016; Sabatier et al., 1987; Sabatier, 1998).

A key assumption underlying the ACF is “a perspective that policies and programs are best thought of as translations of beliefs” (Weible et al., 2009, p. 122). Therefore, policy actors’ beliefs are considered to be the main driver for the development of policies, and therefore policy change is necessarily considered to be preceded either by changes in policymakers’ beliefs or by changes in the actors and therefore the beliefs in the governing coalition (e.g., due to elections). The ACF distinguishes between three different tiers of beliefs with differing

degrees of resistance to change. The top tier consists of the deep core beliefs, which are most resistant to change. According to Weible et al. (2009), these “include liberal and conservative beliefs, and relative concern for the welfare of present versus future generations” (p. 122). In the context of this research, general justice perspectives are likely to fall into this category, as they are often connected to specific political orientations such as liberalism or conservatism (cf. Biermann & Kalfagianni, 2020). The second tier consists of the policy core beliefs, which are more specific to the policy subsystem in question. They often serve as the foundation of coalitions at the level of a specific subsystem. As Weible et al. (2009) explain, while they are also “resistant to change” (p. 123), they “are more likely to adjust in response to verification and refutation from new experiences and information than deep core beliefs” (p. 123). In the context of this research project, justice perspectives specific to soil as well as broader policy preferences shared mostly by members of one coalition of stakeholders could be examples of policy core beliefs. The third tier consists of the secondary beliefs, which are the least resistant to change, “more substantively and geographically narrow in scope, and more empirically based” (Weible et al., 2009, p. 123). In the context of this research project, more concrete policy proposals that may be shared across coalitions are more likely to fall into this category.

According to Weible et al. (2009), pathways to change, in beliefs and therefore policies, more specifically “include broad changes in socioeconomic conditions, public opinion, governing coalitions, and other subsystems” (p. 124), subsumed under the term “external events”, as well as “policy-oriented learning” (p. 124), “internal subsystem events” (p. 124), and “negotiated agreements involving two or more coalitions” (p. 124). This aspect of the ACF is particularly pertinent to and is touched on in the following background chapter of this thesis, as some of the developments in EU soil policy since the early 2000s can be better understood through the lens of these pathways to change.

3. Background on the development of EU soil health policies

3.1. 2006 proposal for a Soil Framework Directive

In 2006, the EC adopted a Thematic Strategy for Soil Protection, also known as the Soil Thematic Strategy, and published a proposal for a Soil Framework Directive. As Chen (2020) explains, the 2006 proposal for a Soil Framework Directive was the first attempt at a policy focused on “soil protection at the European level” (p. 1). While the Soil Thematic Strategy was adopted as a separate document, the main policy that it proposed for the purpose of protecting soils was the Soil Framework Directive. As Montanarella (2015), a soil expert involved in the Development of the Soil Thematic Strategy and the Soil Framework directive, explains, the Strategy and Directive were “the result of several years of consultations in specialized working groups that included scientists, policymakers, industry representatives, landowners and farmers, as well as concerned non-governmental organizations (NGOs) and other stakeholders” (p. 32).

Based on the general structure for European Union (EU) directives, the proposal for a Soil Framework Directive is divided into an overall structure of a title, an explanatory

memorandum, a preamble, the enacting terms or actual articles of the directive, and annexes (EC, 2006a; cf. Xanthaki, 2001). The explanatory memorandum to this proposal includes sections presenting the context of the proposal, the process of consulting interested parties and conducting an impact assessment, legal elements of the proposal, budgetary implications, and additional information. An important part of the explanatory memorandum to this proposal is the section on the legal elements of the proposal, which explains that the impact assessment considered three different options for EU soil policy. The options that were considered at the time were “a general non-binding Community soil strategy” (p. 5), a framework directive, and proposals for legislation on “the different soil threats” (EC, 2006a, p. 5). The memorandum explains that a framework directive was chosen, because “more prescriptive” (p. 8) legislation “would not allow taking into account the variability of soil and would not provide the flexibility needed to reflect local conditions” (p. 8), while a mere strategy “would not ensure the sustainable use of a common natural resource across Europe and would not prevent the distortion of competition caused by very diverging national regimes” (EC, 2006a, p. 8).

The preamble sets out both the main reasons for enacting EU-level soil policy and reasons for specific aspects of the framework directive. It explains that there is a need for action on soil degradation, as soil “is a natural resource of common interest which is under increasing environmental pressure” (EC, 2006a, p. 10). It then identifies “the main eight soil degradation processes” (p. 10) in the EU, namely “erosion, organic matter decline, contamination, salinisation, compaction, soil biodiversity loss, sealing, landslides and flooding” (p. 10), while explaining that soil biodiversity and flooding will not be covered by the proposal, the former because it is still too poorly understood, the latter because it was addressed by another proposal. Next, it addresses the importance of taking the high variability in soil’s “structural, physical, chemical and biological state” (p. 10) throughout the EU into account. Furthermore, it argues that there is a need for specific soil legislation, because while other legislation touches on soil health, it is not yet “sufficient to protect all soils against all degradation processes” (EC, 2006a, p. 10). It presents its aim as follows:

The aim of this Directive is to ensure the protection of soil, based on principles of preservation of soil functions, prevention of soil degradation, mitigation of its effects, restoration of degraded soils and integration into other sectoral policies by establishing a common framework and actions. (EC, 2006a, p. 10)

The preamble goes on to state that there is a need for EU legislation on soil “to control the transboundary soil degradation effects, to protect aquatic and terrestrial ecosystems, and to preclude distortion of competition between economic operators” (EC, 2006a, p. 10). This is used as an explanation for the Directive’s compatibility with the subsidiarity principle. The essence of the subsidiarity principle is that, wherever possible, EU institutions must leave “it to Member States to regulate matters which are more effectively dealt with at the national level” (Xanthaki, 2001, p. 658). The preamble also stresses the need for integration of soil policy into related, existing sectoral policies.

Through a justice lens, it is noteworthy that the argument for legislation despite largely private ownership of soil is primarily made by referring to the precautionary principle and highlighting intergenerational dimensions of soil use. The preamble states that soil “is a natural resource of common interest that has to be protected for future generations” (p. 11) and that “therefore, land users should be required to take precautionary measures when their use of the soil can be expected to significantly hamper soil functions” (EC, 2006a, p. 11). Additionally, it highlights the role that the Directive could play in helping to fulfill the EU’s international responsibilities based on the fact that it is a party to “the United Nations Convention to Combat Desertification and the Convention on Biological Diversity” (p. 12).

The enacting terms of the Directive are divided into five main chapters. Chapter I contains general provisions, and apart from presenting the general subject matter and scope of the Directive, it most notably contains Article 4, which requires Member states to ensure that land users take precautionary measures for the prevention or mitigation of adverse effects on the soil functions covered by the Directive. Chapter II contains articles pertaining to the “prevention, mitigation and restoration” (p. 16) of risks. It is divided into Section One, which requires Member States to identify “risk areas of erosion, organic matter decline, compaction, salinisation and landslides” (EC, 2006a, p. 16), and Section Two, which requires Member States to establish targets and programs of measures to combat those same six soil degradation processes.

Chapter III contains the articles concerning the contamination of soil and is divided into Section One, with articles on the prevention of contamination and inventory of contaminated sites, and Section Two, with articles on the remediation of contaminated sites. Chapter IV contains articles requiring Member States “to raise awareness about the importance of soil for human and ecosystem survival” (EC, 2022, p. 20) and to report on and exchange information regarding certain measures required by the Directive. Chapter V contains the final, more general provisions relating to implementation of the Directive. Finally, the Annexes contain lists of “common elements for the identification of areas at risk of” (p. 25) erosion, soil organic matter decline, compaction, salinization, and landslides, as well as a list of activities that may cause soil pollution.

As Chen (2020) explains, the proposal was ultimately withdrawn “on 21 May 2014 by the EC without any official statement of reasons” (p. 1). Several scholars have identified consistently strong opposition from five EU Member States, namely Austria, France, Germany, the Netherlands, and the UK, as the main cause for the withdrawal and the EC confirmed this in the introduction to its new soil strategy in 2021 (Azam, 2016; Chen, 2020; EC, 2021, Glæsner et al., 2014). Glæsner et al. (2014) summarize those five countries’ opposition to the Soil Framework Directive as being based on a perceived violation “of the subsidiarity and proportionality principles, expected costs and the administrative burden” (p. 9539) imposed by the Directive.

However, based on a cross-policy analysis conducted by Glæsner et al. (2014), which looked at seven of the eight soil threats mentioned in the Directive, three of the soil threats, “namely compaction, salinization, and soil sealing” (p. 9538), were not addressed in EU

legislation “related to soil threats and function” (p. 9538). Additionally, while there was legislation addressing the other four soil threats, there were few *targets* for the reduction of soil threats and even fewer directives aimed at “improving soil functions” (p. 9538). Glæsner et al. (2014) ultimately argued that a Soil Framework Directive could help to address these shortcomings and to integrate existing legislation pertaining to soil for a more holistic approach to EU soil governance.

3.2. Developments since 2014

As mentioned at the beginning of the previous subchapter, while the Soil Thematic Strategy was adopted in 2006, the main policy that it proposed for the protection of soil was the Soil Framework Directive, which was withdrawn in 2014. Therefore, as Glæsner et al. (2014) pointed out, while there were several laws at the EU level that touched on different aspects of soil health, the withdrawal of the Soil Framework Directive left significant gaps in EU-level policies from the perspective of addressing the main threats to soil health identified by the EC (cf. EC, 2006b).

While the next EU-level policy action on soil did not come until 2021, there are several other political developments that likely contributed to this second round of policies concerning soil as well as the changes that become evident when comparing the recent documents to the documents from 2006. In late 2015, the Paris Climate Agreement resulted in commitments to significant reductions in greenhouse gas emissions by the EU and other parties to the treaty, leading to an increased focus on policies concerned with emissions reduction and carbon storage (Savaresi, 2016). As Bloomfield and Steward (2020) explain, in early 2019 “a package of proposed US legislation linking radical environmental and economic programmes” (p. 772) was met with “enthusiasm in the US and internationally” (p. 772) and inspired the EC “to launch its own European Green Deal in December 2019” (p. 772). These political developments, along with a growing awareness of the significant role that soils can play environmentally, particularly as carbon sinks and as repositories of biodiversity, contributed to new momentum in the development of EU soil policy (EC, 2021). Thus, in November 2021, the EC adopted the EU Soil Strategy for 2030 as part of its approach to achieving the objectives of the European Green Deal and announced the development of the Soil Health Law to aid in the implementation of the strategy (EC, 2021). The Strategy was followed by the Call for Evidence for the Soil Health Law in February 2022 (EC, 2022).

A comparison of the enacting terms of the Soil Framework Directive from 2006 with the aspects addressed in the 2021 Soil Strategy and the Call for Evidence shows that while some provisions have remained the same, there have been some notable changes since 2006. The precautionary measures proposed in Article 4 of the 2006 Soil Framework Directive, the measures against sealing in Article 5, the inventory of contaminated sites in Article 10, the soil status report in Article 12, measures for remediation proposed in Articles 13 and 14, and requirements concerning reporting on soil health initiatives in Article 16 all have their equivalents among the provisions mentioned in the 2022 Call for Evidence. However, the Call

for Evidence includes several possible provisions that were not made in the 2006 Soil Framework Directive.

First, the EC's 2022 Call for Evidence proposes the definition of "indicators for soil health and their range of values" (p. 3). Additionally, it suggests that the legal basis for the Land Use/Cover Area frame Survey (LUCAS) could be improved. LUCAS may not have been addressed in the 2006 proposal, because it was still a relatively new approach to monitoring at the time and had not yet been expanded to cover all EU member states (Eurostat, 2023). Furthermore, the 2022 Call for Evidence considers "measures that can contribute to reducing nutrient losses by at least 50% without deterioration in soil fertility (resulting in the reduction of fertiliser use by at least 20%)" (p. 3). This may be due to increased awareness of environmental problems associated with high levels of fertilizer use as well as the development of technologies that can enable more targeted and reduced application of fertilizers (cf. Lubkowski, 2016). Finally, another central new proposal in the EC's 2022 Call for Evidence concerns "options for a passport for excavated soil" (p. 3). This new addition appears to be connected to the growing discourse and efforts around the circular economy in the EU in recent years (Domenech & Bahn-Walkowiak, 2019; EC, 2021).

4. Methods

This chapter describes the methodological approach applied in this research project. It starts with a general explanation of critical discourse analysis as a methodological approach and how the stages and sub-steps of critical discourse analysis were included in this research project. Then the process for identifying and selecting stakeholders and documents for analysis is elaborated on. This is followed by a brief discussion of the reliability and validity of the methodology as well as a subchapter on ethics and my positionality. The research followed a largely qualitative approach because the aim was to examine and better understand the content of statements and to identify justice perspectives rather than to answer any type of quantitative or statistical questions. This consisted of desk research, as the approach was essentially to gather existing statements made by stakeholders and published by the EC as well as additional statements and documents published by the stakeholders on the issue and to examine them through a theoretical lens that had not yet been applied to them (cf. Verschuren & Doorewaard, 2010).

4.1. Stakeholder sampling and selection of documents for analysis

The sampling process for this research project consisted of two main steps. First, the 189 stakeholders that gave feedback to the EC's (2022) Call for Evidence for the proposed Soil Health Law served as the convenience sample from which to sample a smaller number of stakeholders for analysis. Second, a combination of criterion sampling and stratified purposive sampling were used to select a smaller sample of stakeholders that included roughly representative numbers of stakeholders from each stakeholder category identified by the EC (cf. Clark et al., 2021). The data collected for this thesis are documents and statements published online by the stakeholders that pertain to the issue of (EU-level) soil

governance. The first set of documents consists of the 189 feedback responses to the EC's (2022) Call for Evidence for the proposed Soil Health Law. In the course of the stakeholder sampling process, additional documents published by those stakeholders, such as position papers and online statements pertaining to soil health, were collected.

From the 189 feedback responses to the Call for Evidence, all stakeholder organizations that have fewer than 50 employees were excluded from the sample. This was done to make the number of stakeholders in the analysis manageable and to exclude individuals and smaller stakeholders that are likely to be less influential within EU-level soil governance. The size of 50 employees was selected both because 50 is one of the breaks between stakeholder sizes used by the EC and because this appeared to narrow down the stakeholders to a sufficiently manageable number. Furthermore, all stakeholders who gave feedback in a language other than English or German were excluded from the sample. This was done because my knowledge of English and German is sufficient to do an in-depth analysis of available documents without the complications of relying on translation by someone else. Finally, after identifying all stakeholders that fulfilled these criteria, those stakeholders' responses and documents were reviewed to select only those from the different stakeholder categories for whom there was enough information in the available material to give a clear indication of at least one justice perspective, as some stakeholders gave very technical feedback that was difficult to analyze through a justice lens. From the list of 189 respondents to the Call for Evidence, 31 stakeholders were selected for analysis based on the sampling criteria presented above. The full list of selected stakeholders organized by the stakeholder categories used by the EC can be found in Table 3.

Table 3: List of analyzed stakeholders identified based on the criteria presented under 4.1.

Name and reference(s)	English name, description, or additional information
Business associations	
Bundesverband der Deutschen Industrie (BDI) (2022)	Federation of German Industries
Carbon+ Farming Coalition (2022)	European coalition project launched by the World Economic Forum
Cefic (2022)	European Chemical Industry Council
Danish Agriculture & Food Council (2022; n.d.)	represents Danish food companies, farmers' and trade associations
Deutscher Bauernverband (DBV) (2022)	German Farmers' Association
Deutscher Verein des Gas- und Wasserfaches (DVGW) (2022)	German Technical and Scientific Association for Gas and Water
Landwirtschaftskammer Österreich (2022)	Austrian chamber of agriculture
Latvian Peat Association (2022)	association of Latvian peat producers
Verband der Chemischen Industrie (VCI) (2022; 2023)	association of the German chemical industry
Wirtschaftskammer Österreich (2022)	Austrian chamber of commerce
Wirtschaftskammer Vorarlberg (2022)	chamber of commerce of Vorarlberg (Austrian state)
Companies	
Bayer (2022)	multinational biotechnology and pharmaceutical company
Evonik (2022)	chemical company
ICL Group (2022)	multinational manufacturer of fertilizers, minerals, and other chemicals
Novamont (2022)	Italian chemicals company
Novozymes (2022; 2023)	biotechnology company founded in Denmark
Syngenta (2022)	agrichemical company with headquarters in Switzerland
Yara (2021; 2022)	Norwegian chemicals company
NGOs	
Bund für Umwelt und Naturschutz Deutschland (BUND) (2015; 2022)	Friends of the Earth Germany
European Environmental Bureau (EEB) (2022)	European environmental NGO
Fondo per l'Ambiente Italiano (FAI) (2022)	NGO for the protection of Italian (natural and other) heritage
FOUR PAWS (2022)	International animal welfare organization
France Nature Environnement (2022)	French national federation of environmental associations
Naturschutzbund Deutschland (NABU) (2022)	German Nature and Biodiversity Conservation Union

World Wide Fund for Nature Germany (WWF Germany) (2020a; 2020b; 2022)	German branch of the World Wide Fund for Nature
Public authorities	
Danish Ministry of Environment (2022)	or Ministry of Environment of Denmark
German Environment Agency (2022)	central environmental authority in Germany
Research institutions	
University of Bologna (2020; 2022)	Soil Thematic Group
CIHEAM Bari (2022)	Mediterranean Agronomic Institute of Bari
Other	
Forum of Mayors on Just Transition (2022)	group of mayors from European coal regions
Local Governments for Sustainability Europe (ICLEI) (2022a; 2022b)	Local Governments for Sustainability, European Secretariat

4.2. Critical discourse analysis

The main analytical approach applied in this research project was a critical discourse analysis (CDA) using an extended version of the planetary justice framework. Critical discourse analysis is a sub-type of discourse analysis. Both discourse analysis in general and critical discourse analysis in particular are based to some degree on Michel Foucault's philosophical understanding of discourse and language as constitutive to reality. In other words, these approaches consider expressions of language to be worthy of analysis because language structures and shapes both individual and collective realities (Clark et al., 2021; Fairclough, 2013; Locke, 2004). In critical discourse analysis, particular attention is paid to the use of language to exert power and to uphold or potentially address inequalities in society (Catalano & Waugh, 2020; Clark et al., 2021; Fairclough, 2013).

In this research project, I understand discourse in the way Norman Fairclough (2013) defines it as "linguistic and other semiotic elements (such as visual images and 'body language') of the social, but [...] in a relational way, with a focus on relations between linguistic/semiotic elements of the social and other (including material) elements" (p. 348). A key objective of research conducting critical discourse analysis is to study "the relations between discourse and social and cultural developments in different social domains" (Jørgensen & Phillips, 2002, p. 60). As this research project is aimed at identifying the justice perspectives reflected in statements made by stakeholders in the proposed EU Soil Health Law and exploring possible connections between these perspectives and both coalitions formed by the stakeholders as well as the policy proposals they make in the context of developments in EU soil policy, critical discourse analysis is an ideal research approach for this project.

The essential steps of critical discourse analysis that I have followed are also based on the methodology presented by Norman Fairclough in *Critical Discourse Analysis: The Critical Study of Language* (2013). Fairclough (2013) presents four broad stages of critical discourse analysis, namely (1) focusing “upon a social wrong, in its semiotic aspect” (p. 235), (2) identifying “obstacles to addressing the social wrong” (p. 235), (3) considering “whether the social order ‘needs’ the social wrong” (p. 235), and (4) identifying “possible ways past the obstacles” (p. 235). While at first glance these stages appear to be of more of a normative nature than this research project, these stages and the sub-steps that Fairclough proposes offer a useful framework for the methodology in this research project.

The sub-steps that Fairclough presents for stage 1 are steps that were taken in the development of this research project. The first step involved selecting “a research topic which relates to or points up a social wrong and which can productively be approached in a transdisciplinary way” (Fairclough, 2013, p. 235). In this project, this was the selection of soil degradation and its justice dimensions as a research topic. The second step involved constructing “objects of research for initially identified research topics by theorising them in a transdisciplinary way” (Fairclough, 2013, p. 236). This was done both by selecting soil governance at the EU-level as a focus of research and by making the decision to focus on justice dimensions of soil degradation and governance (cf. Fairclough, 2013). This stage roughly corresponds to Step 1 in the research design for this proposal (Fig. 1).

Stage 2 of Fairclough’s approach is divided into three sub-steps. These include (1) analyzing “dialectical relations between semiosis and other social elements” (Fairclough, 2013, p. 237), (2) selecting “texts, and focuses and categories for their analysis, in the light of and appropriate to the constitution of the object of research” (p. 237), and (3) carrying out “analyses of texts, both interdiscursive analysis and linguistic/semiotic analysis” (p. 237). This stage has been the core of the research.

The first results of sub-step 1 can be found in Chapter 3 of this thesis, which broadly identifies the context of the development of EU-level soil governance within which the stakeholders’ feedback is situated. Sub-step 2 involved sampling stakeholders and selecting documents for analysis; the selection, further development, and operationalization of the justice framework presented above; and the guiding questions presented below. Finally, step 3 consisted of the actual qualitative analysis of the selected stakeholders’ statements within the context of the development of EU-level soil governance using the extended planetary justice framework and corresponding guiding questions as a means of identifying different perspectives on justice dimensions of soil degradation and governance as well as policy proposals made by different stakeholder groups (cf. Fairclough, 2013). The documents were analyzed using coding of statements according to the theoretical framework and guiding questions for the identification of justice perspectives. Thus, the coding process for the analysis of justice perspectives began as a deductive coding process with predefined codes based on the extended justice framework. However, the codes were expanded inductively to include some elements of the justice perspectives on soil governance that became more

apparent during the coding process. For the identification of policy proposals, an inductive coding approach was used.

Stage 3 of Fairclough's approach has been partly adapted to the less normative approach of this analysis by adding some additional observations about the particularities of the stakeholder groups' responses to the results and discussion when such observations could be made. In doing so, the analysis seeks to identify ways in which stakeholders' responses reflect existing power structures and may be connected to the social context or order from which their perspectives have arisen. While the context of the development of EU-level soil governance can be considered to be part of Step 1 of the research design for this project, Stages 2 and 3 of Fairclough's approach are included in Steps 2 and 3 of the research design (Fig. 1). Stage 4 of Fairclough's approach was covered in the final stages of this research project and consists of a synthesis and discussion of the results of the previous stages with a view to identifying ways forward in forming coalitions and developing EU soil policy in light of justice dimensions of soil degradation and governance (cf. Fairclough, 2013). This stage corresponds roughly to Step 4 of the research design for this project (Fig. 1).

The following are the guiding questions for the analysis that were derived from the extended planetary justice framework presented above:

1. What causes of injustice are named or implied?
2. What mechanisms are (implicitly or explicitly) proposed or preferred for achieving justice?
3. What subjects of justice are named or implied?
4. What spatial scales of justice are addressed or implied?
5. What temporal scales of justice are addressed or implied?

4.3. Ethics and positionality

As no interviews or surveys were conducted and all data used for the analysis of stakeholders' perspectives and policy proposals were made publicly available either by the stakeholders themselves or by the EC with the stakeholders' consent, questions of informed consent, data management, and privacy guidelines were of less relevance to the data collection process for this thesis (cf. Clark et al., 2021).

In terms of my positionality, I am a white person living in a city in a wealthy European country writing my master's thesis. While a key part of this research consists of conducting a Critical Discourse Analysis, which is used to analyze and uncover "dimensions of power, injustice, and political-economic, social, or cultural change" within text or discourse (Wodak, 2014, p. 302), I am also someone who in many ways has benefitted from the status quo and has been privileged within current systems of power and oppression (cf. Bourke, 2014). Therefore, while I can address certain power imbalances in this thesis and can refer to critical perspectives or the indigenous perspectives that have, to some extent, informed multispecies justice perspectives, I cannot write from the perspective of most of the marginalized groups

who have developed and informed these lenses or justice perspectives. Hence, the extent to which I can adequately represent these perspectives in my analysis is limited, and I have more or less unconscious biases that limit the ways in which I can understand, communicate, and apply these perspectives (cf. Mohanty, 1984). I have done my best to present those dimensions of such perspectives that I find important to include in my analysis, but my aim is to be transparent about the fact that their inclusion in my research cannot do justice to these perspectives and should not be understood as equivalent to or a replacement for the application and communication of these perspectives by members of marginalized groups. Several other key aspects of positionality, e.g., the ways in which my privilege could influence dynamics between me and research subjects or participants are less relevant to this thesis, because I have not conducted interviews or surveys with individuals but rather analyzed existing data published by the EC or by stakeholder organizations (cf. Bourke, 2014; Clark et al., 2021).

I also believe it is important to consider the ways in which my own worldview, experiences, and political biases beyond the common categories of positionality may have influenced my analysis and therefore my results and conclusions. Through a worldview lens, I tend to fall into the objective idealism perspective, with a tendency to believe in the potential of international or global institutions to offer solutions to sustainability problems (cf. de Vries, 2019). Through the lens of the justice framework that I am applying in this thesis, I tend towards perspectives such as cosmopolitanism or multispecies justice that emphasize the commonalities and interrelatedness among either humans or all living things and therefore favor justice mechanisms such as international governance aimed at redistribution of benefits and burdens and/or greater representation of the interests of marginalized groups (cf. Biermann & Kalfagianni, 2020; Burke, 2022). However, at the same time, I have a preference for political dialogue and compromise that may in part be rooted in my personality and in experiences of political gridlock due to increasing political polarization during my lifetime (cf. Moser, 2008; Weinstock, 2013; Winkler, 2019). This combination of a tendency to identify with perspectives such as cosmopolitanism and a wish to increase my understanding of and ability to engage with a perspective such as libertarianism, which is to some degree at odds with several of the other justice perspectives, may have contributed to a certain focus on the libertarian perspective in this thesis beyond what the prevalence of a libertarian perspective among the stakeholders might have dictated (cf. Bourke, 2014). Based on the ways in which these aspects of my positionality and situated knowledge may have influenced my analysis, results, and conclusions, it is important to acknowledge some unavoidable limits to the objectivity and replicability of this research (cf. Clark et al., 2021; Stoetzler & Yuval-Davis, 2002).

5. Results

This chapter is divided into two main subchapters. The first subchapter presents the results of the analysis of the stakeholders' justice perspectives, starting with general descriptive results, then the results for the six justice perspectives in the order of their frequency,

crosscutting aspects, and finally the affiliation network used to visualize the stakeholders' justice perspectives and coalitions. The second subchapter presents the results of the analysis of the stakeholders' policy proposals starting with proposals made by primarily by stakeholders with a predominantly libertarian justice perspective, then presenting proposals made primarily by stakeholders from the civil society coalition, and finally presenting proposals shared by stakeholders with more diverse perspectives. Please note that some of the references to stakeholder feedback do not refer to a page number because those responses did not have page numbers.

5.1. Analysis of stakeholders' justice perspectives

5.1.1. General descriptive results

One of the first general results that became clear during the stakeholder selection and coding process is that very few of the stakeholders explicitly refer to justice in their feedback, though most of their statements give implicit indications of their justice perspectives. This is partly because the stakeholders were giving general feedback on a call for evidence for an EU Soil Health Law rather than responding specifically to questions about the justice dimensions of soil degradation and soil policy. However, it also may give an indication of the stakeholders' perspectives themselves and may, for example, be linked to the preponderance of justice perspectives such as libertarianism and liberal egalitarianism as opposed to, most notably, critical perspectives or the capabilities approach. This is because one empirical result of the analysis appears to be that stakeholders with, e.g., a libertarian perspective are less likely to use "justice" or similar terms even when making statements that can be attributed to a libertarian justice perspective than, e.g., stakeholders with a critical perspective. This could be because many of these stakeholders, despite making statements that can be attributed to a justice perspective such as libertarianism, still understand "justice" and related terminology to be indicative of a critical perspective, in line with, e.g., the conceptualization of justice underlying Coolsaet's *Environmental Justice: Key Issues* (2021).

Another general result that became evident when looking at the overall coding of the stakeholders' feedback is that most of the codes that were useful in identifying a particular justice perspective fall into the dimensions of "causes of injustice" and "justice mechanisms". The other dimensions, namely subjects of justice, spatial scales, and temporal scales, tended to be referred to less frequently and were only sometimes useful in identifying a particular justice perspective. This is an aspect of the usefulness of the dimensions for the purposes of identifying justice perspectives in this project that was partly apparent at the beginning of coding but became more pronounced throughout and particularly at the end of the coding process. The discussion will go into more detail on the reasons for and implications of this fact. The presentation of the results per justice perspective therefore mostly focuses on the results for causes of injustice and justice mechanisms. The results for other dimensions are, for the most part, used as a complement to the results for causes of injustice and justice mechanisms and notable aspects that could not be used to identify the justice perspectives are presented in an additional subchapter on crosscutting aspects.

5.1.2. Libertarianism

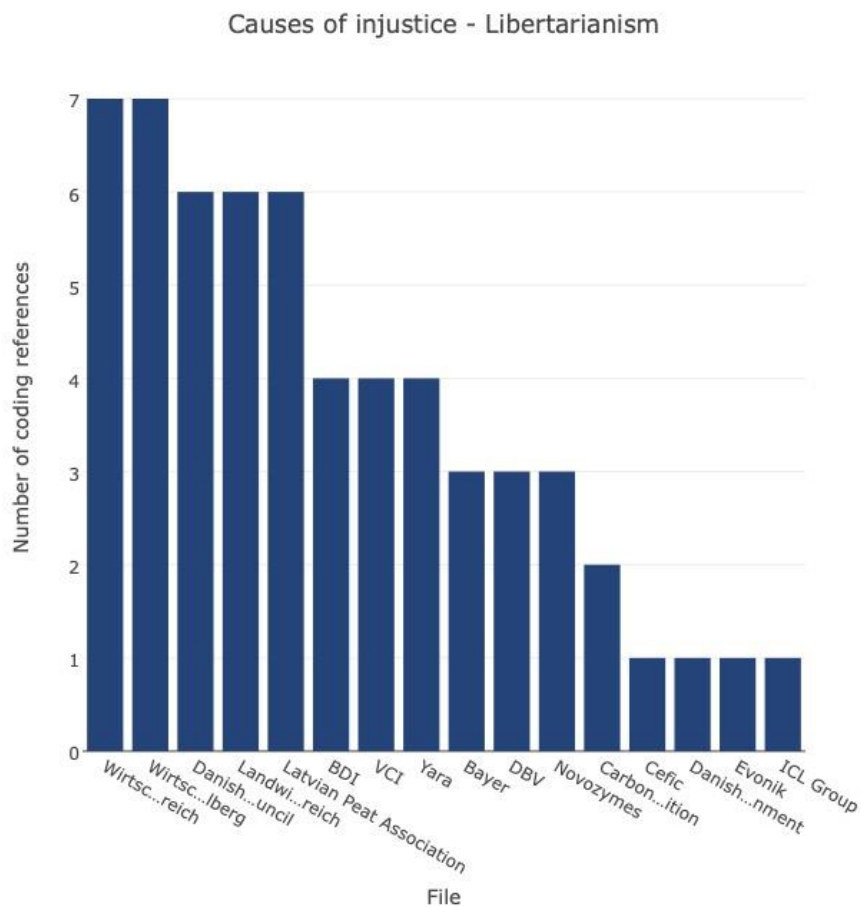
The most common justice perspective that can be identified in the selected stakeholders' feedback based on the frequency of respective codes is libertarianism. When looking at the codes, 59 out of a total of 83 references to causes of injustice (Fig. 2) were indicative of a libertarian justice perspective. The most commonly identified cause of injustice indicative of libertarianism was overregulation. Other coded statements were variations on this same theme, such as high financial or bureaucratic costs resulting from EU regulation, limiting economic activity via overregulation, and overreach by the EU government. A statement exemplary of this category of statements was made by the Latvian Peat Association (2022):

“The planned Soil Health Law will not contribute to soil protection, but will increase the administrative burden and will complicate the application of already existing EU legislation.”

Similar arguments in opposition to the law could be found among other stakeholders, e.g., the Danish Agriculture & Food Council or the Landwirtschaftskammer Österreich. However, not all stakeholders with a clear tendency towards a libertarian justice perspective completely opposed the planned EU Soil Health Law. Instead, many called for limitations to its scope to prevent overregulation, e.g., the Carbon+ Farming Coalition or Bayer.

References to causes of injustice indicative of libertarianism could be found in the statements of 16 different stakeholders. Interestingly though not entirely surprisingly, 7 of the 8 stakeholders with the most statements about causes of injustice indicative of libertarianism are business associations: the Wirtschaftskammer Österreich, the Wirtschaftskammer Vorarlberg, the Landwirtschaftskammer Österreich, the Danish Food & Agriculture Council, the Latvian Peat Association, the BDI (Federation of German Industries) and the VCI (German Chemical Industry Association). Of the remaining stakeholders that made statements about causes of injustice indicative of libertarianism, 5 are companies, namely Yara, Bayer, Novozymes, Evonik, and the ICL Group, all of whom produce fertilizers. Three are additional business associations, namely the DBV (German Farmers' Association), the Carbon+ Farming Coalition, and Cefic (the European Chemical Industry Council). The remaining one is a public authority, the Danish Ministry of Environment.

Figure 2: Frequency of references to causes of injustice indicative of libertarianism



Eighty-five out of a total of 185 references to justice mechanisms (Fig. 3) were indicative of a libertarian justice perspective. The most commonly identified justice mechanism indicative of libertarianism was innovation or the promotion of, especially technological, innovation with 26 out of the total of 85 references to justice mechanisms indicative of libertarianism. Other frequently identified justice mechanisms indicative of libertarianism include incentives as a form of soft policy; reduced, regulatory, bureaucratic, and financial barriers to economic activity; and individual freedom or voluntary measures. The following statement by Syngenta (2022) is exemplary of the types of statements made by stakeholders with a largely libertarian justice perspective:

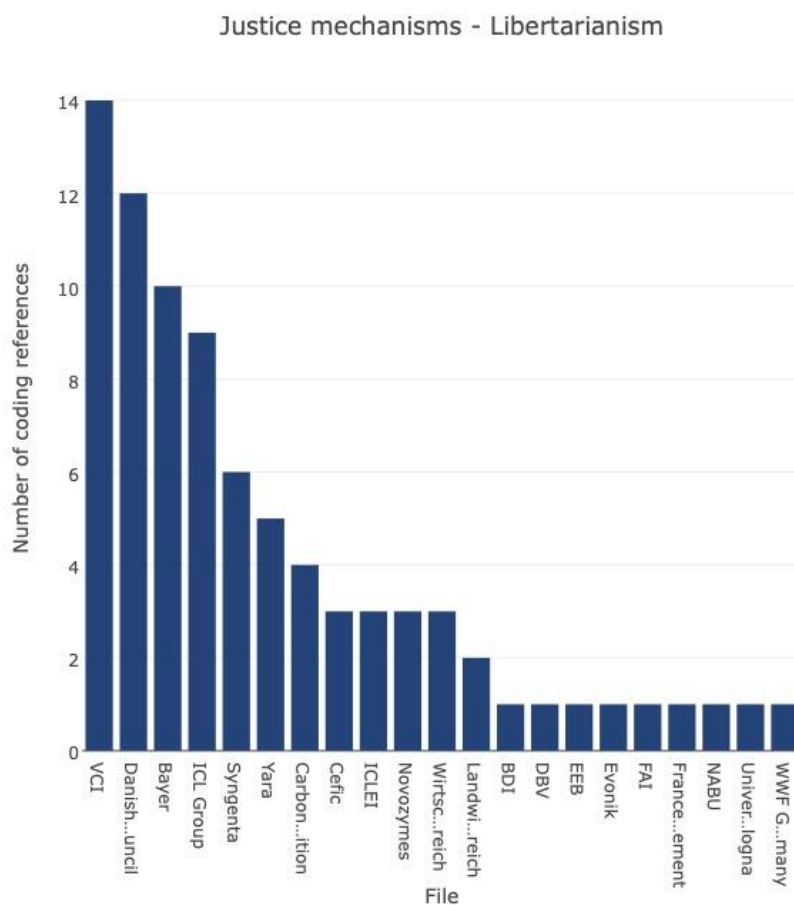
“Legislation should prioritize the approval and widespread use of technologies that contribute to soil health sustainability” (p. 2).

This statement is also a good example of how actors with a more libertarian justice perspective usually do not explicitly apply a justice lens to the issue at hand but rather make implicit references to their libertarian worldview and understanding of justice.

These references to justice mechanisms indicative of libertarianism could be found in the statements of 21 different stakeholders. The majority of the stakeholders in question are the same ones that referred to causes of injustice indicative of libertarianism (Fig. 3). The

largest group are, again, business associations, in this case 8, namely the VCI, the Danish Agriculture & Food Council, the Carbon+ Farming Coalition, Cefic, the Wirtschaftskammer Österreich, the Landwirtschaftskammer Österreich, and the DBV. The second largest group are also companies, namely Bayer, the ICL Group, Syngenta, Yara, Novozymes, and Evonik. In addition, there are 6 other stakeholders that each made one clear reference to a justice mechanism indicative of libertarianism, namely the EEB, the FAI, France Nature Environnement, the NABU, and WWF Germany, all NGOs, and the University of Bologna.

Figure 3: Frequency of references to justice mechanisms indicative of libertarianism



Overall, these results indicate that 24 of the 31 selected stakeholders show at least some indication of having a libertarian justice perspective regarding soil policy, with 16 referring to both causes of injustice and justice mechanisms indicative of a libertarian justice perspective.

An additional observation specific to some of the libertarian stakeholders, most notably the Latvian Peat Association and the Austrian stakeholders, namely the Landwirtschaftskammer Österreich, the Wirtschaftskammer Österreich, and the Wirtschaftskammer Vorarlberg, was their tendency to use less diplomatic language in communicating their positions on EU soil policy and highlighting the burdens that the

proposed EU Soil Health Law might place on themselves or their countries. The following quote from the Latvian Peat Association (2022) highlights this blunt style:

“The sentence quoted shows that there is no need to waste resources trying to develop a common framework for countries with fundamentally different natural conditions.”

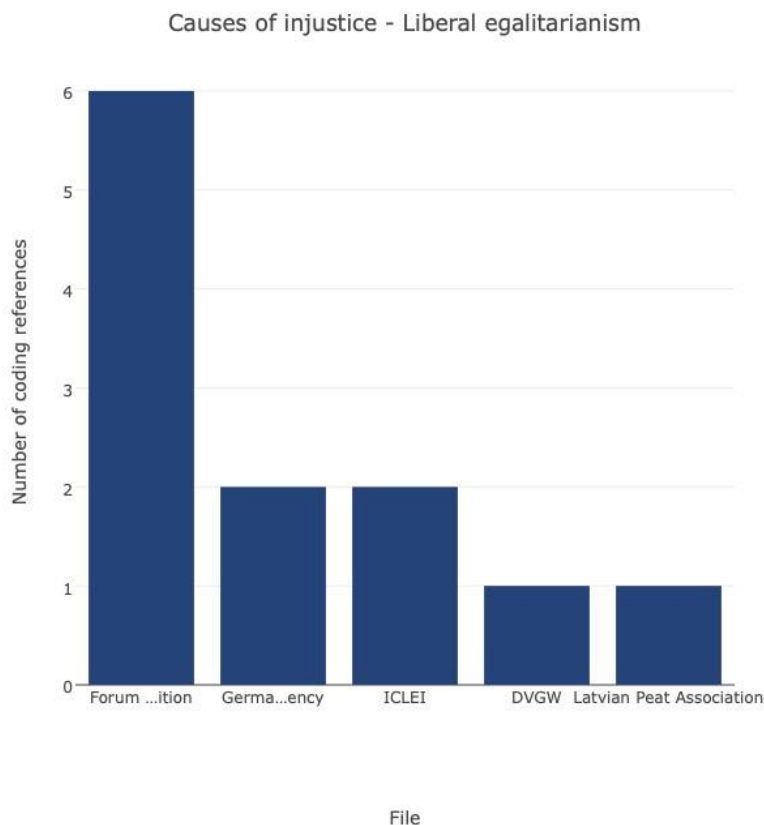
5.1.3. Liberal egalitarianism

The second most common justice perspective identified in the selected stakeholders’ feedback based on the frequency of respective codes is liberal egalitarianism. Overall, 12 out of a total of 83 references to causes of injustice (Fig. 4) were indicative of a liberal-egalitarian justice perspective. The most commonly identified cause of injustice indicative of liberal egalitarianism was inequality in the distribution of general benefits and burdens at the EU level with 8 references. Most of the other references were a variation on this theme. The following statement by the Forum of Mayors on Just Transition (2022) is exemplary of this perspective:

“The costs of treating and remediating post-mining sites most often falls on the local government and local tax payers. This contravenes the polluter pays principle.”

There were only 5 stakeholders that made references to causes of injustice indicative of liberal egalitarianism. Two of these stakeholders are business associations: DVGW (German Gas and Water Association) and the Latvian Peat Association. Two of the stakeholders are networks of local and regional governments or authorities: the Forum of Mayors on Just Transition and ICLEI. The final stakeholder is a public authority: the German Environment Agency. The stakeholder that made the most references to causes of injustice indicative of liberal egalitarianism is the Forum of Mayors on Just Transition.

Fig. 4: Frequency of references to causes of injustice indicative of liberal egalitarianism



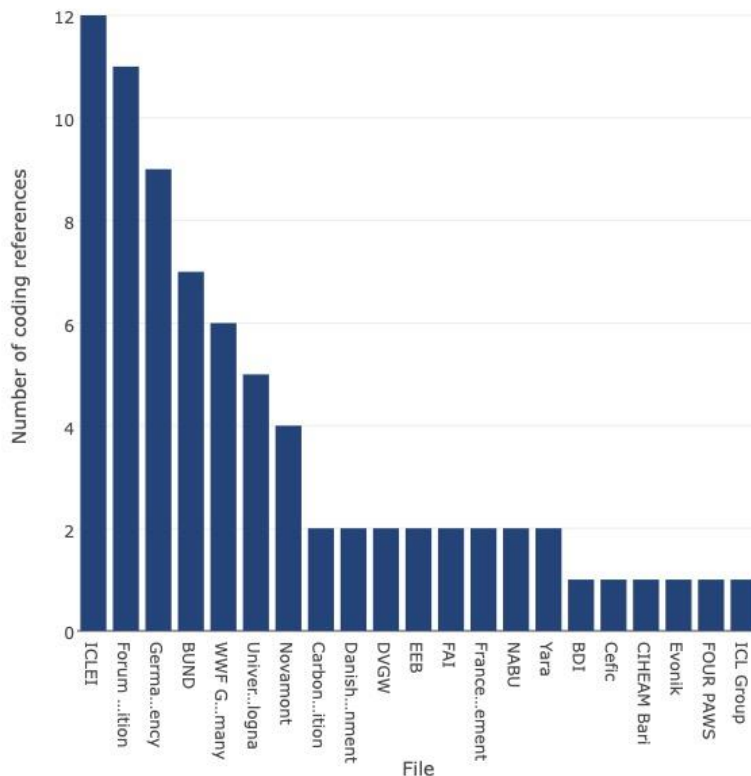
Seventy-seven out of a total of 185 references to justice mechanisms (Fig. 5) were indicative of a liberal-egalitarian justice perspective. The most commonly identified justice mechanism indicative of liberal egalitarianism was EU-level legislation aimed at more equal distribution of benefits and burdens with 46 out of the 77 references. The following statement by the German Environment Agency (2022) is exemplary of references made to justice mechanisms indicative of liberal egalitarianism:

“Consider the ‘polluter pays’ principle by setting up a taxation system for soil contamination with chemicals” (p. 8).

Even though there was a lower frequency of references to justice mechanisms indicative of a liberal-egalitarian perspective than of a libertarian perspective, there was the same number, namely 21, of the 31 stakeholders making such references and thereby giving some indication of having a liberal-egalitarian perspective. The 3 stakeholders that made the most references to justice mechanisms indicative of a liberal egalitarian perspectives were the two networks of local and regional governments or authorities (ICLEI and Forum of Mayors on Just Transition) and the German Environment Agency. Of the other stakeholders that made references to justice mechanisms indicative of a liberal-egalitarian perspective, 7 are NGOs: the BUND (Friends of the Earth Germany), WWF Germany, the European Environmental Bureau (EEB), the Fondo per l’ Ambiente Italiano (FAI), France Nature Environnement, FOUR

PAWS, and the German Nature and Biodiversity Conservation Union (NABU). Four of the stakeholders are companies: Novamont, Yara, Evonik, and the ICL Group. Four are business associations: the Carbon+ Farming Coalition, the DVGW, the BDI, and Cefic. Finally, there are 2 research institutions (the University of Bologna and CIHEAM Bari) and another public authority (the Danish Ministry of Environment).

Fig. 5: Frequency of references to justice mechanisms indicative of liberal egalitarianism
Justice mechanisms - Liberal egalitarianism



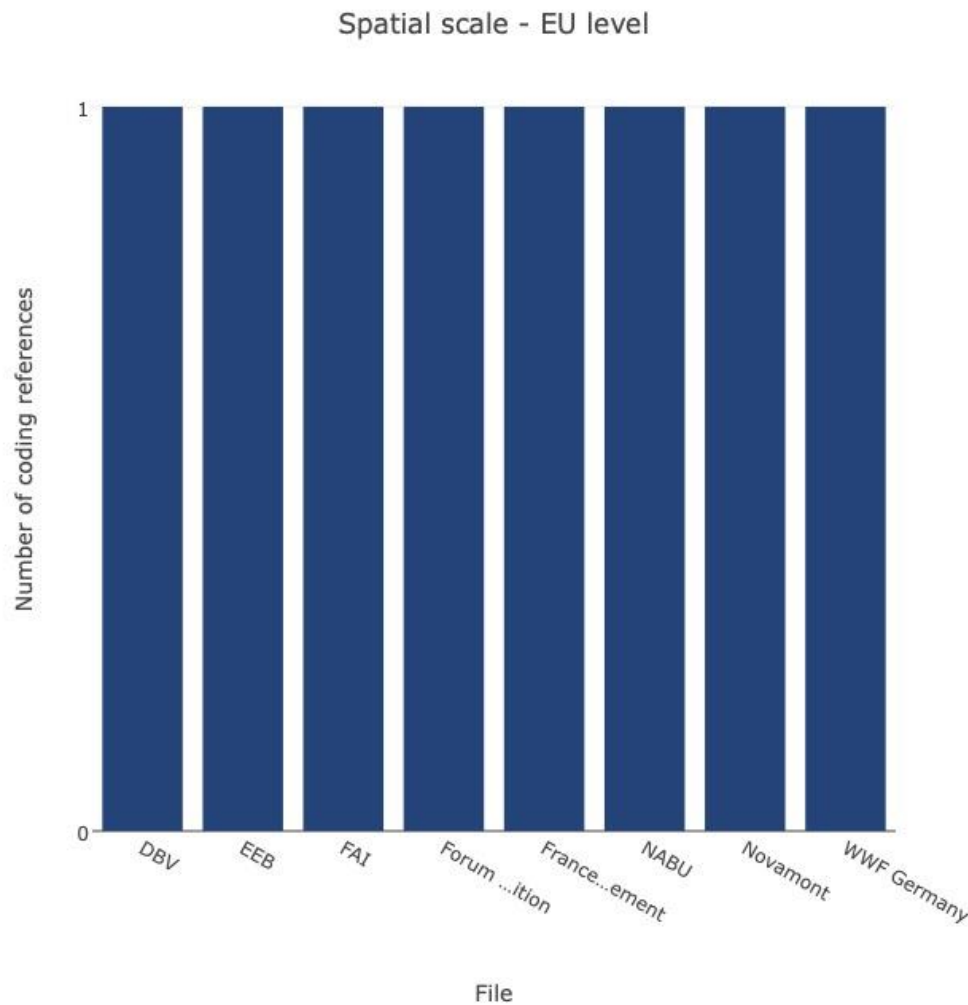
In the case of liberal egalitarianism, there were two other justice dimensions that appeared to be clearly indicative of this justice perspective, namely the spatial scale and subjects of justice. While most of the other justice perspectives tend to consider a more global scale, liberal egalitarianism is primarily concerned with the national level or, in this case, mostly the EU level.

Eight of the 31 stakeholders made references to justice at the EU level that were indicative of a liberal egalitarian perspective (Fig. 6), with each of the stakeholders making one such reference. These include 5 NGOs, namely the EEB, the FAI, France Nature Environnement, NABU, and WWF Germany. The other 3 stakeholders are the DBV, a business association, Novamont, a company, and the Forum of Mayors on Just Transition. All these stakeholders also made at least some references to justice mechanisms indicative of liberal egalitarianism, with the exception of the DBV.

The following statement made by the FAI (2022), but also identically or almost identically by the EEB, France Nature Environnement, the NABU, and Novamont, who all shared a version of the civil society position paper as part of their feedback, is exemplary of references made to the EU level as the spatial scale for soil justice:

“Administrative powers, as well as the expression of national sovereignty, and the exercise of property rights are not in question within their respective borders, but the poor health conditions of soils and the threats they suffer, amplified by the effects of climate change, give rise to a framework of environmental concerns and social risks extended to a supranational dimension. Soil also has features of a common good, its governance requires the seeking of participatory solutions. Reversal of soil degradation trends in Europe requires action programs, inclusive and coordinated, whose effectiveness depends on a sound European leadership and a concurrence of responsibilities by all Member States, with the proper application of the principle of subsidiarity: subsidiarity is not a limit to action, but a positive tension for coordinated actions in areas that require shared efforts.”

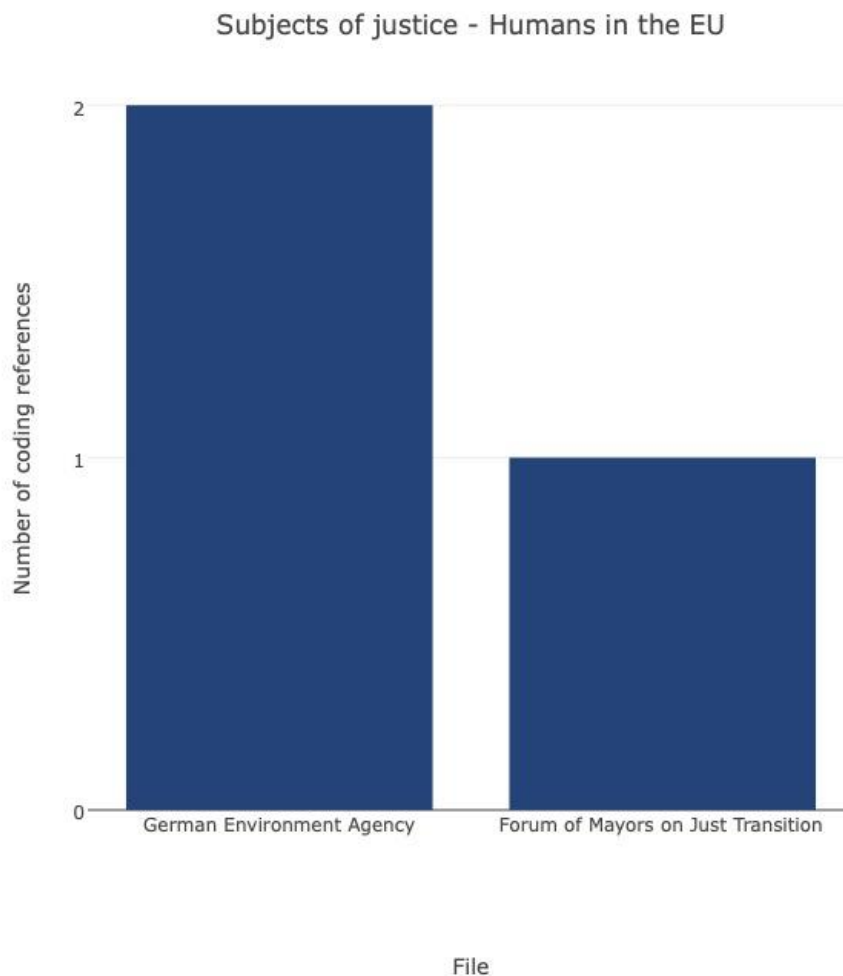
Fig. 6: Frequency of references to justice at the EU level distinct from liberal-egalitarian causes of injustice and justice mechanisms



Similarly, liberal egalitarianism is one of the only perspectives for which there were some references to subjects of justice that could be clearly distinguished from causes of injustice and justice mechanisms. However, even in this case, only 2 stakeholders made references to subjects of justice indicative of liberal egalitarianism that could be clearly distinguished from references to causes of injustice and justice mechanisms (Fig. 7). These were the German Environment Agency, with 2 references, and the Forum of Mayors on Just Transition, with 1 reference, both of whom also showed relatively strong tendencies towards liberal egalitarianism in their references to causes of injustice and justice mechanisms. The following statement by the German Environment Agency (2022) illustrates this type of reference:

“it is commonly acknowledged that the pressures on European land and soils are continuously increasing, harming not only human wellbeing” (p. 1).

Fig. 7: Frequency of references to humans in the EU as subjects of justice distinct from liberal-egalitarian causes of injustice and justice mechanisms



Overall, these results indicate that 23 of the 31 stakeholders show at least some indication of having a liberal-egalitarian justice perspective regarding soil policy. Ten stakeholders made references referring to two or more dimensions in a way that was indicative of a liberal-egalitarian justice perspective. One stakeholder, the Forum of Mayors on Just Transition, made clear references to all four dimensions that were considered in a way that was indicative of a liberal-egalitarian justice perspective.

5.1.4. Cosmopolitanism

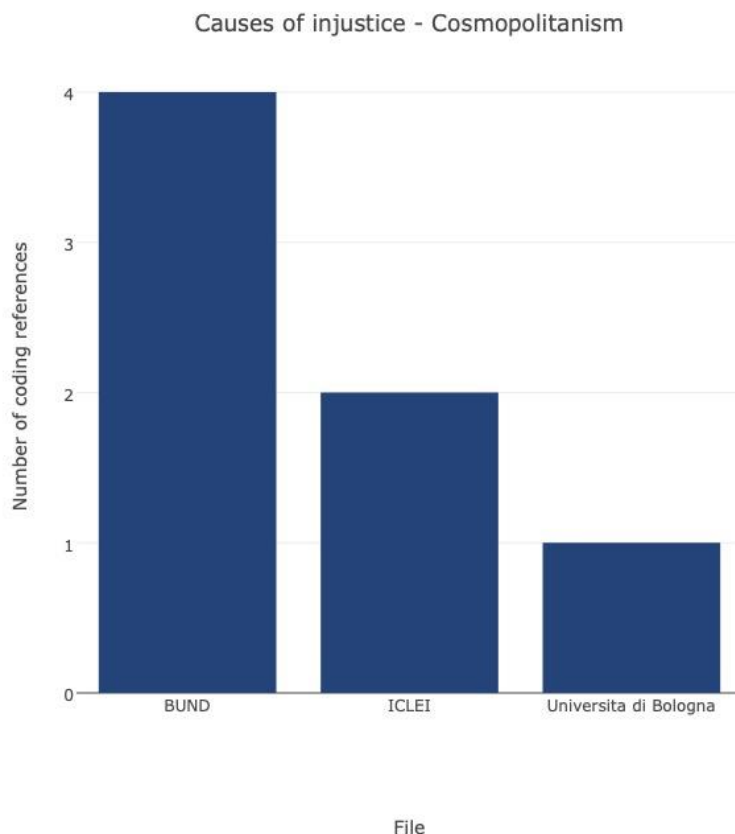
The third most common justice perspective identified in the feedback is cosmopolitanism. Out of the 83 references to causes of injustice, only 8 were indicative of a cosmopolitan justice perspective (Fig. 8). These 8 references were all coded as referring to global or general inequality in the distribution of benefits and burdens. The following statement made by ICLEI (2022) is exemplary of this perspective:

“Current consumption patterns of the vast urban populations in Europe rely heavily on cheap food from unsustainable, large-scale agricultural practices, which are substantially subsidized by the EU’s Common Agricultural Policy (CAP) or which are

imported from countries with weak regulatory systems or low environmental standards. This undermines the transition of local and regional agriculture towards sustainable production practices and further worsens the overall impact of cities on soils in Europe and beyond” (p. 3).

There were 3 of the 31 stakeholders that made references to causes of injustice indicative of cosmopolitanism. These were the BUND, a German environmental NGO, ICLEI, a network of European local and regional governments, and the University of Bologna.

Fig. 8: Frequency of references to causes of injustice indicative of cosmopolitanism



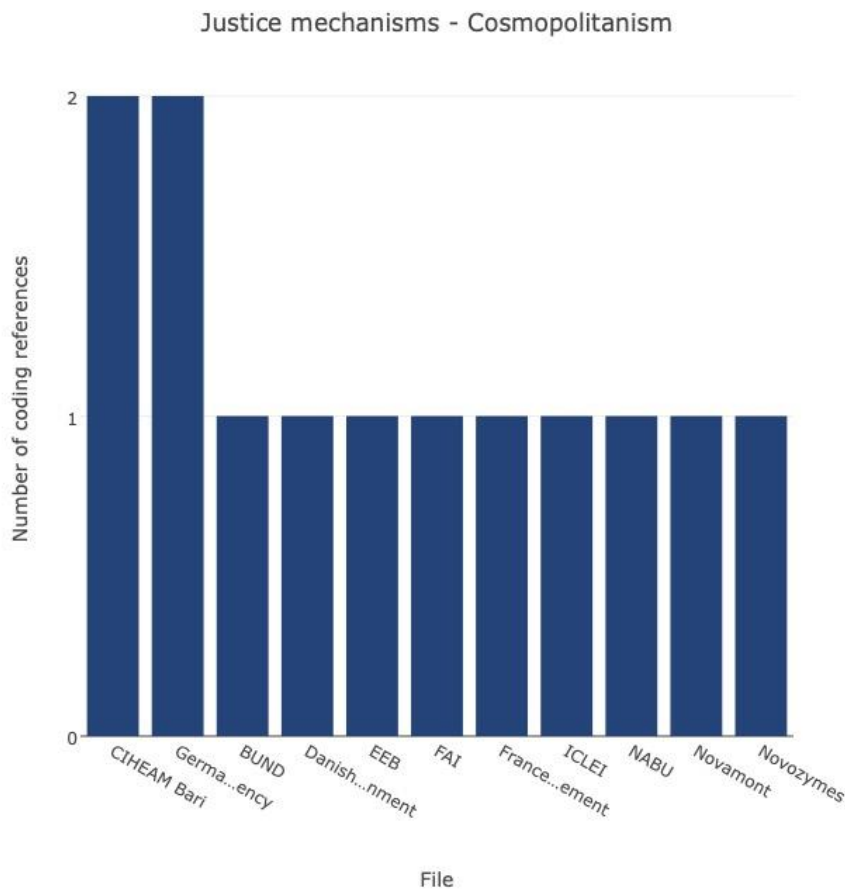
Out of the 185 references to justice mechanisms, 13 were indicative of a cosmopolitan justice perspective (Fig. 9). These 13 references were all coded as referring to legislation or governance aimed at international or global redistribution of benefits and burdens. The following statement made by the NABU (2022), a German environmental NGO, is exemplary of this perspective:

“We call for efforts to reduce the ecological footprint of European imports causing soil degradation on other continents. As the largest impacts are linked to imports of feed, meat, biofuels and raw materials, including minerals and hydrocarbons, the Soil Health Law must cooperate with other mechanisms, treaties and food system regulations, and

support investments in circular economy and bioeconomy, to stop the outsourcing of soil degradation.”

Eleven of the 31 stakeholders made references to justice mechanisms indicative of cosmopolitanism. Of these, 5 were NGOs, namely the BUND, the EEB, the FAI, and France Nature Environnement, and the NABU. Two of the stakeholders were public authorities: the German Environment Agency and the Danish Ministry of Environment. Another 2 of the stakeholders were companies, Novamont and Novozymes. The final two stakeholders were CIHEAM Bari, a research institution, and the ICLEI, a network of European local and regional governments.

Fig. 9: Frequency of references to justice mechanisms indicative of cosmopolitanism



Overall, these results indicate that 12 of the 31 stakeholders show at least some indication of having a cosmopolitan justice perspective regarding soil policy. Two of the stakeholders, the BUND and ICLEI, referred to both causes of injustice and justice mechanisms indicative of cosmopolitanism.

5.1.5. Multispecies justice

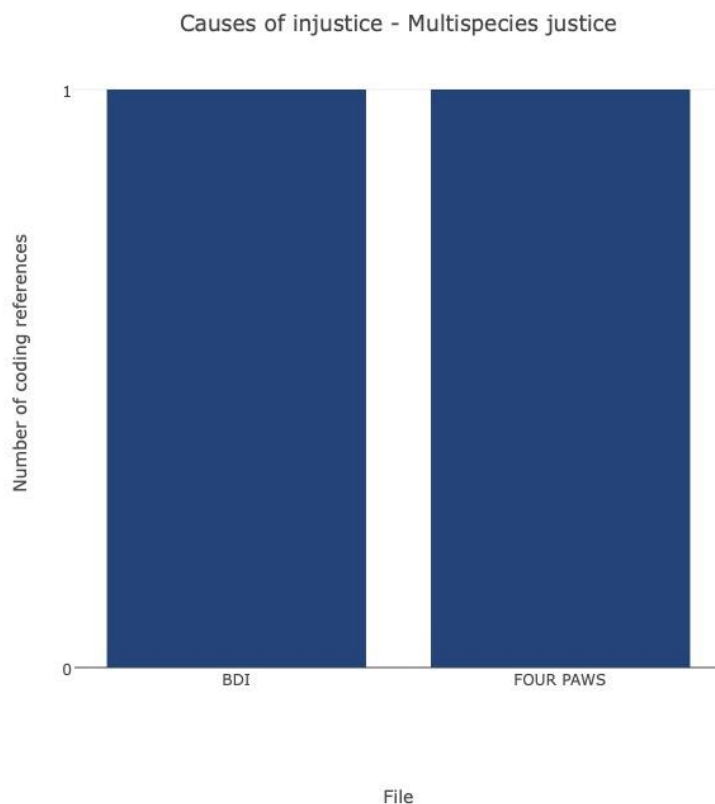
The fourth and certainly one of the less common justice perspectives identified in the feedback is multispecies justice. Out of the 83 references to causes of injustice, only 2 were

indicative of a multispecies justice perspective (Fig. 10). These 2 references were both coded as referring to exploitative systems causing harm to soils. The following statement made by the BDI (2022) is one of these two examples:

“The intensive and efficiency-oriented soil management in the past century as well as the long tradition of use of many sites has led to harmful soil changes and burdens” (p. 1).

The 2 stakeholders that made references to causes of injustice indicative of multispecies justice were the BDI, a German business association, and FOUR PAWS, an NGO.

Fig. 10: Frequency of references to causes of injustice indicative of multispecies justice



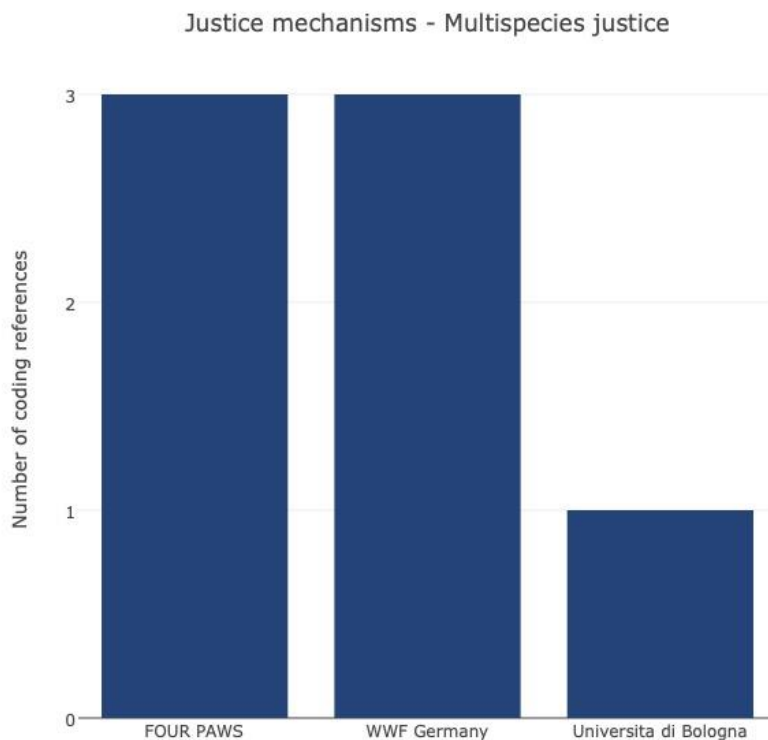
Out of the 185 references to justice mechanisms in all, 7 were indicative of a multispecies justice perspective (Fig. 11). An example of a code used for more than one statement is “policies aimed at recognizing and advancing interests of more than human living organisms”. The following statement made by WWF Germany (2020), an environmental NGO, is exemplary of this perspective:

“Partnerschaft mit der Natur ist auch im Landbau einem Kampf gegen die Natur bzw. einem anthropozentrischem Naturbeherrschungsparadigma vorzuziehen. Jede Art der Bodenbewirtschaftung bedarf daher stets der ausgleichenden Prozesse für den Boden.“

Translation: *In agriculture as well, partnership with nature is preferable to a fight against nature or an anthropocentric paradigm of controlling nature. Every type of soil management therefore always requires balancing processes for the soil.*

Three of the 31 stakeholders made references to justice mechanisms indicative of multispecies justice. These were FOUR PAWS and WWF, both NGOs, and the University of Bologna.

Fig. 11: Frequency of references to justice mechanisms indicative of multispecies justice



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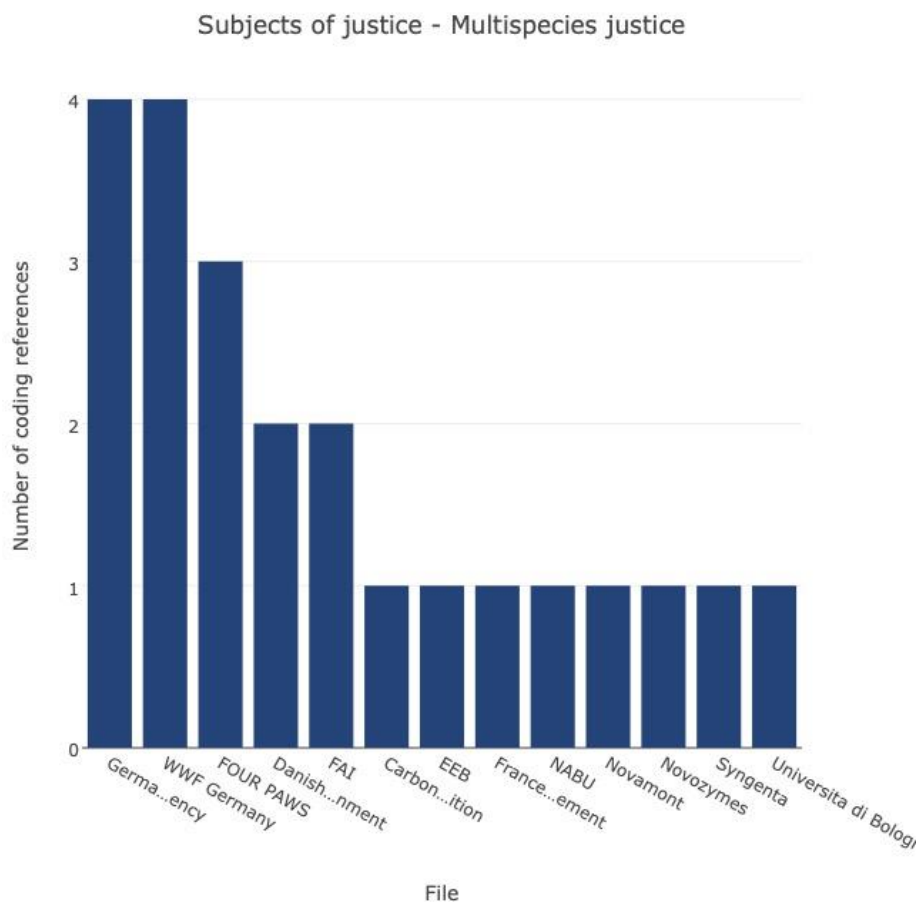
In the case of multispecies justice, the most common dimension that could be identified to some degree in the statements made by the stakeholders is that of more than human beings as potential subjects of justice. Of the 26 coded references to subjects of justice, 23 were indicative of multispecies justice. However, this relatively high number results from the fact that the default in all other statements was implicitly referring to human subjects of justice, which was therefore not coded as often. The most common code was for references to living organisms (more than humans) more broadly as potential subjects of justice. However, there was also no explicit naming of more than humans as subjects of justice but rather an implicit acknowledgment that more than humans should be considered in policy and legislation beyond their utility to humans. The following is perhaps the strongest statement implicitly recognizing more than humans as subjects of justice, again from WWF Germany (2020):

„Wir erkennen an: Das Leben im und aus dem Boden hat eigene Bedürfnisse, deren Kenntnis und Berücksichtigung eine Grundvoraussetzung einer nachhaltigen Landwirtschaft und somit guter fachlicher Praxis werden muss. Die vollständige Durchwurzelbarkeit des Bodens für die Pflanzen und die Futtersversorgung der Regenwürmer sind sicherzustellen. Die Vielfalt an Wurmartigen und Gliederfüßern, an Pilzen, Protisten und Bakterien/Archaeen und ihr Zusammenspiel gilt es zu erkennen und in die praktische Landwirtschaft und in den Naturschutz einzubeziehen (alles ohne Genmanipulation). Dies erfordert ein Bodenbild, das über eine Sichtweise des Bodens als ‚Rohstoff‘ und ‚Dienstleister‘ für rein menschliche Bedürfnisse hinausgeht.“

Translation: We recognize: Life in and from the soil has its own needs, knowledge and consideration of which must become a basic requirement of sustainable agriculture and thus good professional practice. The complete permeability of the soil for the plants' roots and the earthworms' food supply must be ensured. The diversity of worms and arthropods, of fungi, protists and bacteria/archaea and their interaction must be recognized and incorporated into practical agriculture and nature conservation (all without genetic manipulation). This requires a view of soil that goes beyond a conception of soil as a 'raw material' and 'service provider' for purely human needs.

Thirteen of the 31 stakeholders made at least one reference to subjects of justice indicative of a multispecies justice perspective (Fig. 12). Of these, 6 were NGOs, namely WWF Germany, FOUR PAWS, the FAI, the European Environmental Bureau, France Nature Environnement, and the NABU. Three of the stakeholders were companies: Novamont, Novozymes, and Syngenta. Two were public authorities, namely the German Environment Agency and the Danish Ministry of Environment. One was a business association, the Carbon+ Farming Coalition, and one was a research institution, the University of Bologna.

Fig. 12: Frequency of references to subjects of justice indicative of multispecies justice



Overall, these results indicate that 14 of the 31 selected stakeholders show at least some indication of having a multispecies justice perspective regarding soil policy. It is important to point out that only one stakeholder, FOUR PAWS, made references to all three dimensions that are indicative of a multispecies justice perspective. Two other stakeholders, namely the WWF Germany and the University of Bologna, made references to both justice mechanisms and subjects of justice that are indicative of a multispecies justice perspective. All others only made references to one dimension that might be indicative of a multispecies justice perspective. Therefore and based on a review of the coded statements, only FOUR PAWS and the WWF Germany give a relatively strong indication of having a multispecies justice perspective. However, it is still important to note that a number of other actors give at least a limited indication that they acknowledge elements of a multispecies justice perspective, particularly in terms of acknowledging that soil degradation has effects on more than human beings who might be entitled to some level of protection for their own sake and not just based on their utility to humans.

5.1.6. Capabilities approach

The capabilities approach was the fifth and least common justice perspective after critical perspectives. No references to causes of injustice were made that could be clearly attributed to a capabilities approach perspective (compared to 83 references to causes of injustice in total). Out of the 185 references to justice mechanisms in all, 3 were indicative of the

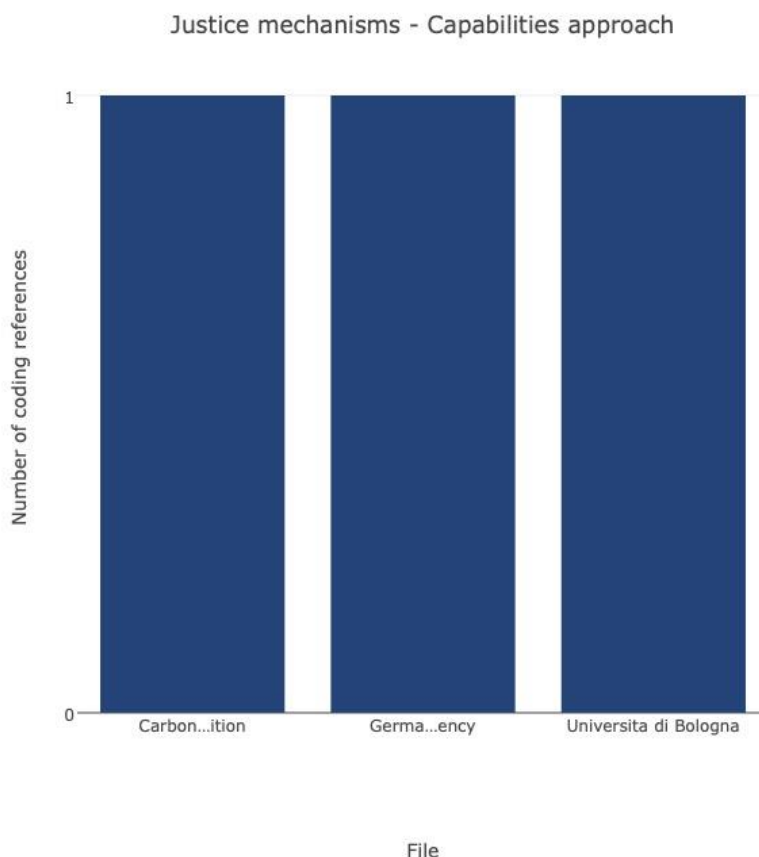
capabilities approach. The following statement made by the University of Bologna (2020) is exemplary of this perspective:

“The maintenance and improvement of soil functionality requires actions at all levels: from governments, and public authorities, international organizations, scientific community, private sector, groups, corporations to all individuals using or managing soil” (p. 9).

This statement can be interpreted as calling for global and decentralized action aimed at maintaining and improving soil health to preserve its functions that support human flourishing.

Three of the 31 stakeholders made references to justice mechanisms indicative of the capabilities approach (Fig. 13). These were the Carbon+ Farming Coalition, a business association, the German Environment Agency, a public authority, and the University of Bologna, a research institution. Overall, these results indicate that only 3 of the 31 selected stakeholders show at least some indication of having a capabilities approach perspective regarding soil policy.

Fig. 13: Frequency of references to justice mechanisms indicative of the capabilities approach



5.1.7. Critical perspectives

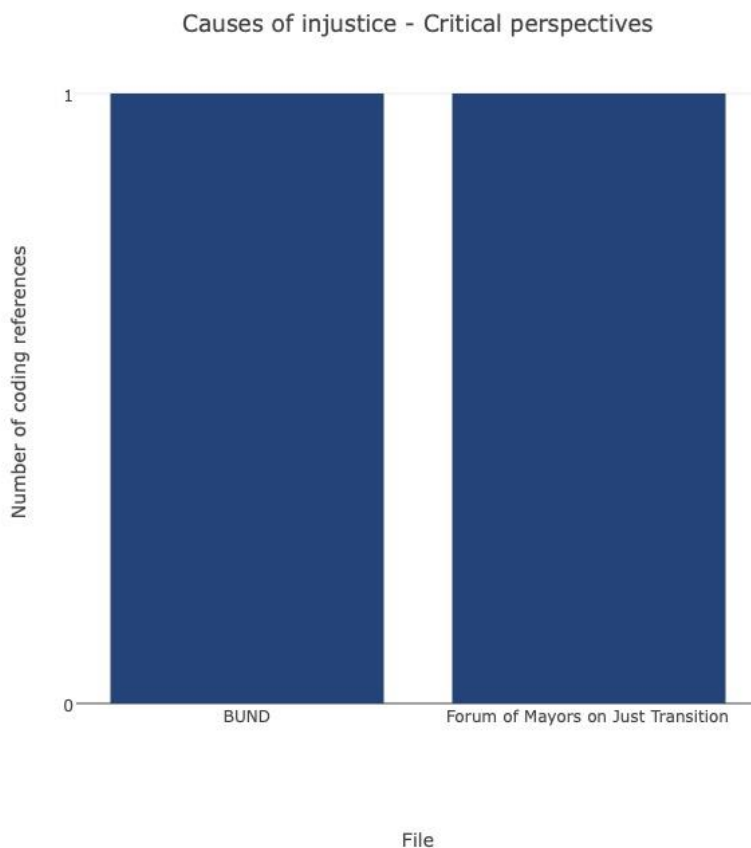
Finally, the sixth and least common justice perspective was critical perspectives. There were very few statements that could be clearly identified as indicative of a critical perspective. One of the exceptions is also, notably, one of the few exceptions to the phenomenon of not explicitly referring to justice: the Forum of Mayors on Just Transition (2022), a network of “representatives of local and regional authorities” (p. 1) with a particular focus on a just transition to a post-fossil fuel economy and the challenges faced by former mining municipalities.

Out of the 83 references to causes of injustice in all, only 2 were indicative of a critical perspective (Fig. 14). These 2 references were coded as referring to systemic or structural inequalities and/or exploitation. The following statement made by the BUND (2015) is an excerpt from one of these two examples:

„Noch im 20. Jahrhundert dienten Kriege und koloniale Unterdrückung dazu, die Territorien der Nationalstaaten auszuweiten. Doch mit zunehmender Liberalisierung und Globalisierung des Agrarhandels seit den 1980er Jahren begannen die nationalen Knappheiten von Land zu verschwimmen, denn es schlug die Stunde der großen Agrar-Handelsunternehmen. Mit weltweiten Niederlassungen und der Transportlogistik für viele Millionen Tonnen Fracht bewegen seither die großen vier – Bunge, Cargill, Louis Dreyfus und ADM – die landwirtschaftlichen bulk products, Massenprodukte, aus den Ursprungsländern hin zu den Zentren der Verarbeitung und des Konsums. Nationale Landknappheit wird auf diese Weise ausgelagert: Man kauft sich jenseits der Grenzen die Flächen, die man braucht, gleichgültig welche Veränderungen die Nachfrage dort auslöst“ (p. 14).

Translation: As recently as the 20th century, wars and colonial oppression served to expand the territories of nation-states. But with increasing liberalization and globalization of agricultural trade since the 1980s, national scarcities of land began to blur, as the hour of the big agricultural trading companies arrived. With global offices and transportation logistics for many millions of tons of freight, the big four - Bunge, Cargill, Louis Dreyfus and ADM - have since been moving bulk agricultural products from their countries of origin to centers of processing and consumption. In this way, national land scarcity is outsourced: one buys the land one needs outside one's own borders, no matter what changes the demand triggers there.

Fig. 14: Frequency of references to causes of injustice indicative of critical perspectives



The 2 stakeholders that made references to causes of injustice indicative of a critical perspective were the BUND, an NGO, and the Forum of Mayors on Just Transition. There was no mention of justice mechanisms that would be clearly indicative of a critical perspective. Overall, these results indicate that only 2 of the 31 selected stakeholders show at least some indication of having a critical perspective regarding soil policy.

5.1.8. Crosscutting aspects

The largely crosscutting dimensions not yet addressed for most of the stakeholders are the subjects of justice, the spatial scales, and the temporal scales. The subjects of justice were only addressed in the subchapters on liberal egalitarianism and multispecies justice because these were the only two perspectives for which codes for this dimension could be made that were distinct from the codes on causes of injustice and justice mechanisms. In both cases, this also relates to the fact that these are perspectives for which subjects of justice are significantly different from the other perspectives. In the case of liberal egalitarianism, there is a clear focus on humans at the EU or national level as opposed to humans more generally or at a global level. In the case of multispecies justice, the consideration of more than human beings as potential subjects of justice is a feature unique to this perspective.

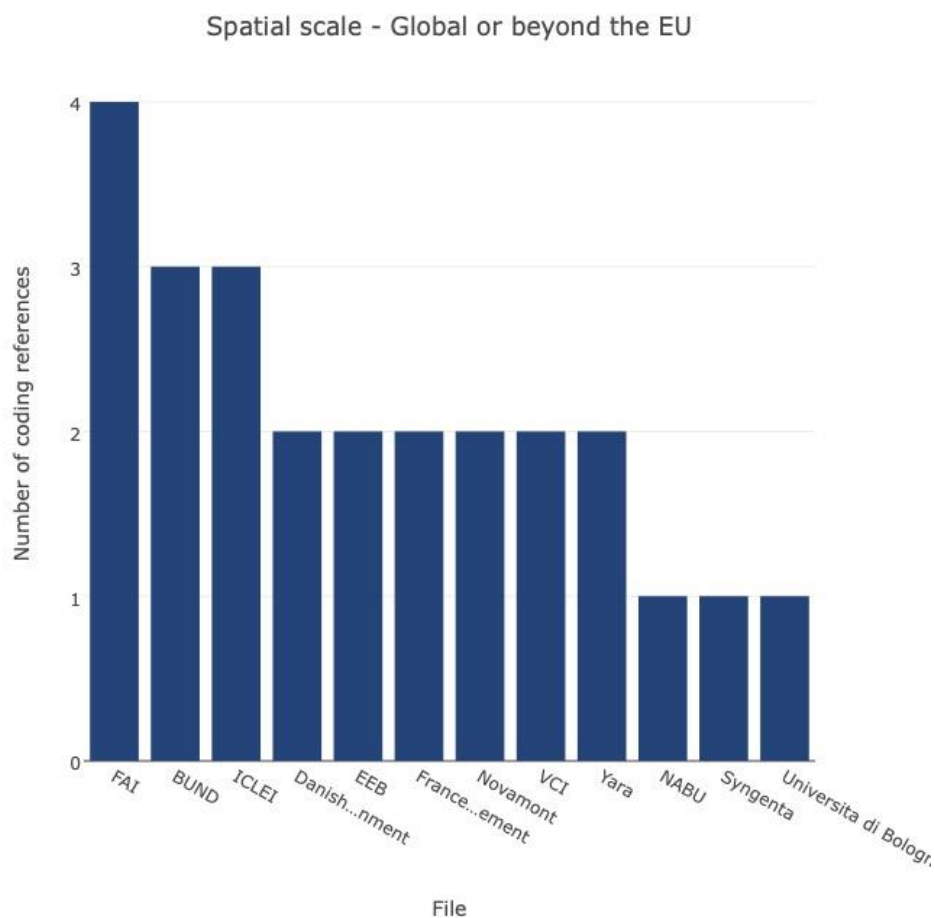
In the case of the dimension of the spatial scale, references to justice at the EU level were also included in the subchapter on liberal egalitarianism for the same reasons as

mentioned in the last paragraph. The other distinct references to spatial scales of justice that were identified concerned justice at the global level or beyond the EU. 25 out of a total of 33 references to the spatial scale referred to justice at the global level or beyond the EU. The following statement made by the Danish Ministry of Environment (2022) is exemplary of such references:

„Global deforestation still occurs at an alarming rate with severe negative impacts not only on climate change, biodiversity and social aspects, but also on soil” (p. 2).

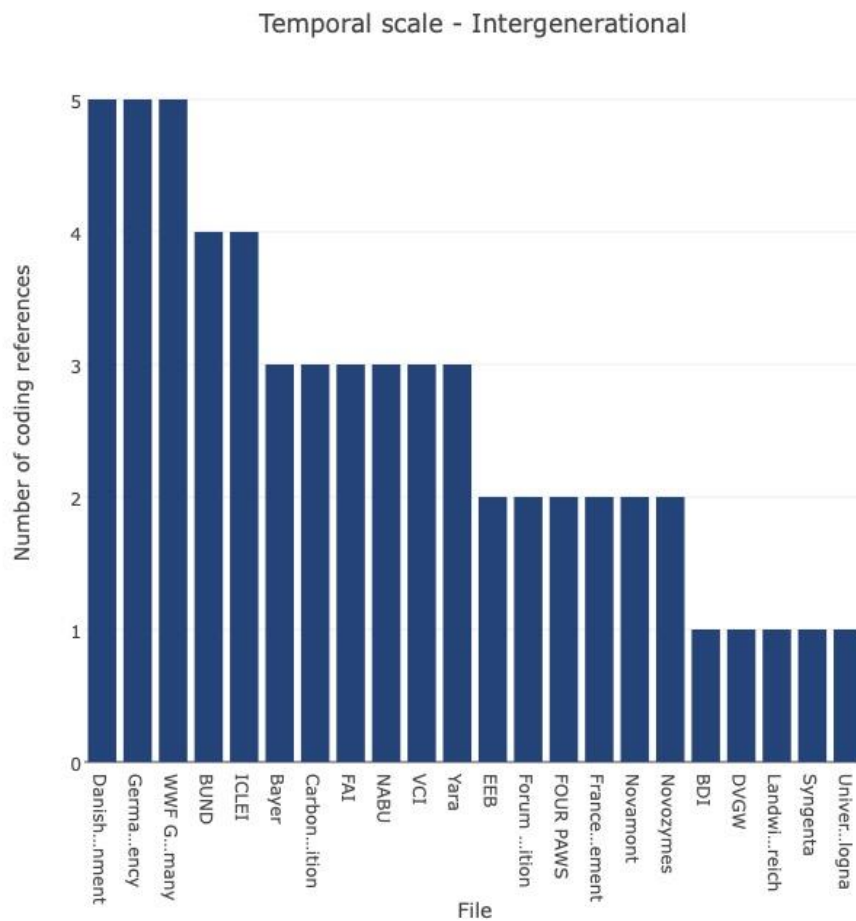
Twelve of the 31 stakeholders made references to the global level or at least to beyond the EU level (Fig. 15). The FAI made 4 such references, the BUND, and the ICLEI each made 3 such references, while the remaining 9 stakeholders each made between 1 and 2 such references. Overall, these stakeholders were from a mixture of different stakeholder categories and had varying justice perspectives. Of the three stakeholders that made the most references, two of which were NGOs, all had a strong or slight tendency towards EU-level liberal egalitarianism overall, but also made references indicative of other perspectives, including cosmopolitanism.

Fig. 15: Frequency of distinct references to justice at the global level or beyond the EU



For the dimension of the temporal scale, the only code that was used was “intergenerational”, as it was difficult to identify any other type of reference to the temporal dimension of justice. Twenty-two of the 31 stakeholders made references to intergenerational aspects of soil health and soil degradation (Fig. 16). The 3 stakeholders that made the most references to intergenerational aspects (5 each) were the Danish Ministry of Environment, the German Environment Agency, and WWF Germany. It is notable that two of these are the two public authorities among the stakeholders while the third is an NGO. All three appear to differ somewhat in their justice perspectives. The Danish Ministry of Environment made an equal number of references to multiple justice perspectives, while the German Environment Agency clearly had more of an EU-level liberal egalitarian justice perspective, and WWF Germany had a tendency towards a multispecies justice perspective. The 2 stakeholders that each made 4 references to intergenerational aspects were the BUND, an NGO, and ICLEI, a network of local and regional governments. In this case, both stakeholders tended towards an EU-level liberal-egalitarian justice perspective, with the BUND also making some references indicative of cosmopolitanism and critical perspectives. The remaining 17 stakeholders that made between 1 and 3 references to intergenerational aspects were from various stakeholder groups and tended towards varying justice perspectives. These included 5 NGOs, 5 companies, 5 business associations, the Forum of Mayors on Just Transition, and the University of Bologna. To illustrate the variance in justice perspectives, these include, for example, stakeholders from the realm of business with a strong tendency toward a libertarian justice perspective, such as Bayer, the VCI, and Yara, but also NGOs with more of a balance of different justice perspectives, such as the FAI or the NABU.

Fig. 16: Frequency of references to intergenerational aspects of soil justice



5.1.9. Affiliation network

Using the Discourse Network Analyzer and Ucinet, I created a (bipartite) affiliation network which visualizes the stakeholders' references to the dimensions which were presented in the previous subchapters and are clearly attributable to the different justice perspectives (Fig. 17). For the network visualization, liberal egalitarianism was divided into liberal egalitarianism at the EU level and at the national level, as some stakeholders made explicit calls for national legislation aimed at redistribution of benefits and burdens as opposed to EU-level legislation, while others referred primarily to legislation at the EU level. The edge between a stakeholder and a justice perspective represents a stakeholder's reference to a dimension attributable to that perspective. The thickness of the edges represents (edge weight) represents the frequency at which a stakeholder made a reference to the respective justice perspective. The color of the stakeholder nodes indicates the stakeholder type.

Apart from visualizing how frequently the stakeholders referred to a particular perspective, the network helps to identify clusters of stakeholders with similar justice perspectives and possible coalitions. The clearest cluster of stakeholders is the one centered

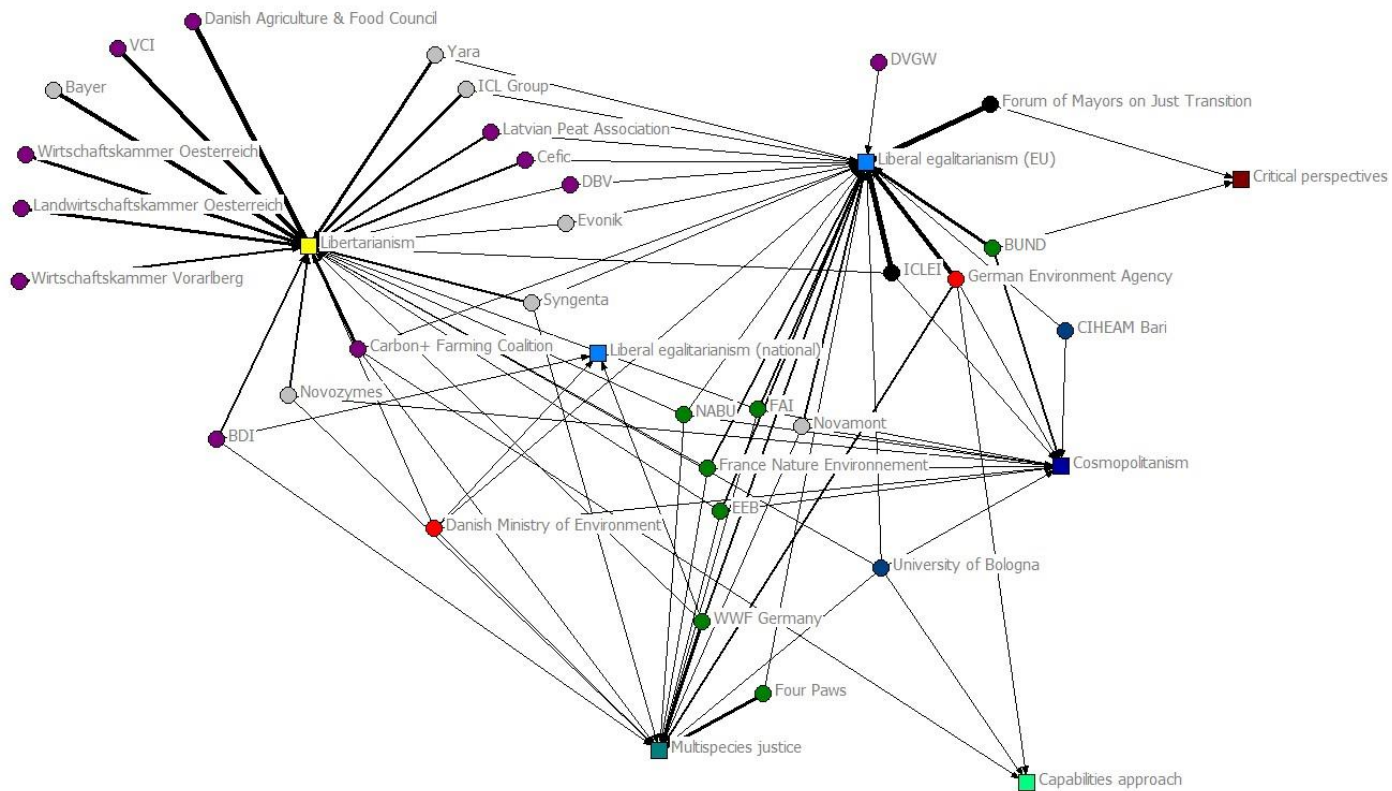
around a libertarian perspective. Here there are 6 of the 31 stakeholders whose references to dimensions that were clearly attributable to one justice perspective were all made to libertarian dimensions. These are Bayer, a company, and 5 business associations, namely the Danish Agriculture & Food Council, the Landwirtschaftskammer Österreich, the VCI, the Wirtschaftskammer Österreich, and the Wirtschaftskammer Vorarlberg. In addition, there are 8 stakeholders who primarily made references to libertarianism but who also made references to dimensions attributable to other perspectives. All these stakeholders are either business associations or companies. Based on the statements made by these stakeholders, there is also some evidence that there is an existing coalition centered around a libertarian perspective, as some stakeholders used very similar or almost identical phrasing and sentence structure to make some of these arguments.

The second-most apparent cluster of stakeholders is that around EU-level liberal egalitarianism, with 1 stakeholder whose references to dimensions that were clearly attributable to one justice perspective were all made to EU-level liberal egalitarianism, namely the DVGW. In addition, 5 stakeholders clearly made most of their references to dimensions attributable to EU-level liberal egalitarianism, namely the ICLEI, the Forum of Mayors on Just Transition, the BUND, the German Environment Agency, and Novamont. Closely following libertarianism, this is also the perspective that the second largest number of stakeholders made some reference to. However, unlike in the case of libertarianism, there is less of a clear existing coalition around EU-level liberal egalitarianism, with all different types of stakeholders making distinct statements attributable to an EU-level liberal egalitarian perspective.

The last perspective for which there is a small but clear cluster of stakeholders is the multispecies justice perspective, with 2 stakeholders who made the majority of their clearly attributable references to multispecies justice, namely FOUR PAWS and WWF Germany. For cosmopolitanism, the capabilities approach, and critical perspectives, the network helps to visualize which stakeholders made references to dimensions attributable to these perspectives, but there were no stakeholders who made a clear majority of their attributable references to any of these perspectives.

One coalition that is identifiable based on similar or identical statements but is more difficult to identify based on this network is the group of stakeholders (mostly NGOs) who submitted a joint civil society paper, with minor variations, as their main feedback. These are the European Environmental Bureau, FAI, France Nature Environnement, NABU, and Novamont. The network helps to show that this paper contains references to a number of different justice perspectives, indicating that this coalition is not centered around one particular justice perspective.

Figure 17: Network visualization of stakeholder perspectives



Justice perspectives

- Libertarianism
- Liberal egalitarianism (EU)
- Liberal egalitarianism (national)
- Cosmopolitanism
- Multispecies justice
- Capabilities approach
- Critical perspectives

Stakeholder types

- Business association
- Company
- NGO
- Public authority
- Research institution
- Other

5.2. Stakeholders' policy proposals

In this section of the results, I present the policy proposals the stakeholders made in their feedback to the Call for Evidence as well as in additional documents. I have included all proposals identified in statements made by 2 or more stakeholders. In the first subchapter, I present the policy proposals that were mainly made by the predominantly libertarian stakeholders. In the second subchapter, I present the policy proposals that were mainly made by members of the civil society coalition. In the third subchapter, I present the policy proposals that were shared by actors across coalitions to a greater extent.

5.2.1. Policy proposals of predominantly libertarian stakeholders

One of the most common policy proposals made by the predominantly libertarian stakeholders was some type of **incentives**, especially in the form of incentives to encourage farmers to make their farming practices more sustainable, while three stakeholders also proposed incentives specifically in the form of payment for ecosystem services. The following statement by the ICL Group (2022) is an example of such a proposal:

“In order to further encourage farmers to reduce their nutrient losses, a payment for ecological service could also be given, when these solutions are used in fields instead of traditional fertilizers.” (p. 2).

Overall, incentives were proposed by 8 different stakeholders. Seven of these stakeholders shared a predominantly libertarian justice perspective, namely the Danish Agriculture & Food Council, Bayer, the Carbon+ Farming Coalition, Yara, the ICL Group, Syngenta, and the DBV. The final stakeholder that proposed incentives was the ICLEI, which had a predominantly liberal-egalitarian perspective.

Another very common category of policy proposals made by predominantly libertarian stakeholders concerned **science- and risk-based approaches** to monitoring and developing measures to protect soil health. The following statement by Bayer (2022) is an example of this category of policy proposals:

“Moreover, both chemical as well as biological soil monitoring to assess soil health is complex and costly. A Soil Health Law should manage these key aspects of soil health, for instance when it comes to creating a soil health certificate for land transactions. A science and risk- based monitoring and certification strategy could help to manage this complexity“ (p. 3).

Here, 6 stakeholders, namely Bayer, the BDI, Cefic, Evonik, the VCI, and the Danish Ministry of Environment, emphasized the importance of adopting a risk-based approach in connection with the respective land use when deriving measures to protect or restore soil health. Apart from the Danish Ministry of Environment, these stakeholders all had a predominantly libertarian justice perspective. Furthermore, 3 stakeholders with a predominantly libertarian

justice perspective, namely Bayer, the Carbon+ Farming Coalition, and the VCI, more specifically called for science and risk-based monitoring and certification to reduce costs of implementing soil policy. Finally, 3 stakeholders, namely Bayer, Yara, and again the Danish Ministry of Environment called for a science-based approach to avoid overregulation.

Another somewhat related position taken by predominantly libertarian stakeholders was stressing the importance of **taking different types of land use into account** when developing indicators and measures for soil health. The following statement by Bayer (2022) is an example of this position:

“In agriculture for instance strong differences exist between e.g. arable and grassland field soils concerning the composition and abundance of soil inhabiting invertebrate species. Agricultural use requires a different focus on soil health properties than an industrial, residential or nature conservation use” (p. 3).

This type of statement regarding soil health policy was made by 4 stakeholders with a predominantly libertarian justice perspective, namely Bayer, the Danish Agriculture & Food Council, the Latvian Peat Association, and the VCI, but also by the Danish Ministry of Environment and the German Environment Agency.

Another category of proposals concerned the importance of **stakeholder participation** in developing the Soil Health Law, with an emphasis on the inclusion of landowners and “experts”. The following statement by Cefic (2022) illustrates these positions:

“Cefic also believes that the stakeholder participation should be ensured throughout the process of developing the new soil law (e.g. through discussions in expert group meetings)” (p. 1).

This type of statement was made by 4 stakeholders with a predominantly libertarian justice perspective, namely the BDI, Cefic, the Danish Agriculture & Food Council, and the VCI. Another category of proposals that was also concerned with ensuring that different interests are adequately represented in soil policy consisted of expressions of a necessity to **align soil health indicators with other sustainability indicators**, with an emphasis on economic sustainability. The following statement by Bayer (2022) exemplifies these positions:

“Soil health provisions for farming should therefore cover both soil health and farm sustainability. For all soils, the setting of clear and measurable soil health indicators and their range of values should be aligned with social, environmental and economic sustainability indicators. It should be avoided that soil health indicators and their management negatively impact the sustainability performance of farming” (p. 2).

This type of statement was made by 3 stakeholders with predominantly libertarian justice perspectives, namely Bayer, the Carbon+ Farming Coalition, and Yara.

Several stakeholders with a predominantly libertarian justice perspective also expressed **opposition to an EU Soil Health Law** on two different but related grounds. The first group of statements argued that there are existing laws that touch on soil protection whose implementation should be improved rather than creating a new one. The following statement made by the Latvian Peat Association (2022) is an example of this position:

“The figure No 1 of the Strategy shows that the planned Soil Health Law will not bring anything new. The EU already has a number of regulations in place: Water Framework and Nitrate Directives, Directive on the protection of groundwater against pollution and deterioration, Directive on industrial emissions (integrated pollution prevention and control). Issues related to the sustainable use and proper management of agricultural soils can be addressed through the Common Agricultural Policy (CAP).”

This type of statement was made by 4 stakeholders, namely the Danish Agriculture & Food Council, the Landwirtschaftskammer Österreich, the Latvian Peat Association, and the Wirtschaftskammer Österreich. The second type of these statements expressed opposition to EU soil legislation on the basis of the subsidiarity principle. The following statement made by the VCI (2022) exemplifies these positions:

“The enforcement of the German soil protection law and the various obligations arising from the technical regulations on preventive soil protection law (Ordinance on Installations for the Handling of Substances Hazardous to Water, etc.) have led to soil pollution being avoided or, if it has occurred, to its immediate restoration. National legislation thus already addresses soil protection intensively, which means that double regulation is to be avoided (subsidiarity principle). For example, predicted environmental concentrations of plant protection products in the soil are already determined and considered in the strict risk assessment within the framework of plant protection product authorisation.”

This type of statement was made by 4 stakeholders, namely the Landwirtschaftskammer Österreich, the VCI, the Wirtschaftskammer Österreich, and the Wirtschaftskammer Vorarlberg.

Along the same lines of opposing EU legislation or overregulation, a number of stakeholders with a predominantly libertarian perspective expressed **opposition or caveats to the establishment of a soil health certificate**. The following statement by the BDI (2022) is an example of this category of policy positions:

“There should be no mandatory soil and/or groundwater investigations for (planned) land transactions. Private agreements and all information between contracting parties absolutely require special protection of confidentiality” (p. 2).

These positions were divided into two main categories. Four stakeholders with predominantly libertarian justice perspectives, namely the BDI, Cefic, Evonik, and the VCI, stressed the importance of ensuring the confidentiality of land transaction documents as a caveat to the establishment of a soil health certificate. Three stakeholders, namely Evonik, the Wirtschaftskammer Österreich, and the Wirtschaftskammer Vorarlberg, expressed opposition to a soil health certificate on the grounds of potential negative economic effects.

Similarly, several stakeholders expressed definite or potential **opposition to a passport for excavated soil** based on the bureaucratic effort that such a policy would entail. The following statement by the Latvian Peat Association (2022) illustrates these positions:

“The planned “passport for excavated soil” may refer to the widespread extraction of minerals in Latvia, incl. sand, gravel, and peat. Such a requirement will only create additional bureaucratic burdens. Extraction of peat and minerals already is well regulated and there is no need to create any new system.”

This type of statement was made by 4 stakeholders with a predominantly libertarian justice perspective, namely the Landwirtschaftskammer Österreich, the Latvian Peat Association, the VCI, and the Wirtschaftskammer Österreich.

Another category of two different types of statements made by stakeholders with a predominantly libertarian justice perspective pertained to the law’s provisions regarding the treatment of contaminated sites and appeared to be primarily concerned with industrial contamination. Several stakeholders proposed that the law should give **equal priority to safeguarding and remediation** of contaminated sites. The following statement by Cefic (2022) exemplifies this position:

“Safeguarding of contaminated sites and remediation of contaminated sites should be given an equal priority for risk-mitigation of contaminated sites” (p. 2).

This type of statement was made by 4 stakeholders, namely the BDI, Cefic, Evonik, and the VCI. The second type of statement expressed the stakeholders’ preference for a clear **distinction between remediation and restoration** of contaminated sites. The following statement by Evonik (2022) illustrates this position:

“Grundsätzlich sind die Begriffe ‚Wiederherstellung‘ (,restoration‘) und Sanierung (,remediation‘) zu unterscheiden. Eine Sanierung zielt i.d.R. auf eine Verringerung von Schadstoffen im Boden ab, während die Wiederherstellung z.B. die Remodellierung von Oberflächen zur Schaffung von Lebensräumen beinhaltet.”

Translation: *Basically, the terms 'restoration' and 'remediation' have to be distinguished. Remediation usually aims at reducing pollutants in the soil, while restoration involves, for example, remodeling surfaces to create habitats.*

This type of statement was made by 3 stakeholders, namely the BDI, Evonik, and the VCI.

Finally, a couple of stakeholders proposed that EU **soil policy should not make sourcing of raw materials for fertilizers more difficult** and should prioritize both European fertilizer production and European food production. The following statement by the ICL Group (2022) exemplifies these positions:

„A significant proportion of the raw materials for fertilizers are imported from outside European Union. The sourcing of these raw materials is critical, and some of them, such as phosphate rock or phosphorus are already listed in the EU critical list of raw materials 20205. Therefore, to ensure the EU’s food production capacity, we suggest that the Commission in its future legislative proposal takes into consideration the EU capacity to source these necessary raw materials without additional constraints. The FPR 2019/1009 is already implementing very ambitious safety criteria, making the fertilizing products among the safest, if not the safest, in the world” (p. 3).

This type of statement was made by 2 stakeholders with a predominantly libertarian justice perspective, namely the ICL Group and Yara.

5.2.2. Policy proposals of civil society coalition

The first policy proposal made primarily by members of the civil society coalition was to **increase organic farming** as a part of EU soil policy. The following statement by the German Environment Agency (2022) best illustrates this type of proposal:

“Implementing integrated pest management (IPM) in combination with increasing the share of organic agriculture can contribute to reaching European goals regarding reduced soil pollution, protect soil biodiversity as well as reduction of pesticide use” (p. 7).

These proposals were made by 7 stakeholders. This includes the members of the civil society coalition, namely the EEB, the FAI, France Nature Environnement, the NABU, and Novamont, but also the German Environment Agency and WWF Germany.

A second category of policy proposals called either for the restoration of natural habitats in rural areas or more generally for **ecosystem restoration**. Again, the statement by the German Environment Agency (2022) exemplifies this type of proposal:

“We appreciate the medium-term objective of the ‘soil strategy’ by 2030 to restore significant areas of degraded and carbon-rich ecosystems, including soils” (p. 6).

This type of proposal was made by the same 7 stakeholders, namely the EEB, the FAI, France Nature Environnement, the NABU, and Novamont, as well as the German Environment Agency and WWF Germany.

A group of policy proposals that is related to but distinct from the calls for increased organic farming concerns the **reduction of the use of fertilizers and other chemicals in agriculture**. The following statement made by Novamont (2022) is an example of these proposals:

“reduce the application of fertilisers and chemicals in agriculture and animal husbandry in order to meet the limits of the environmental impact and load capacity.”

This type of proposal was made by 6 stakeholders. These included the members of the civil society coalition, so the EEB, the FAI, France Nature Environnement, the NABU, and Novamont, but also WWF Germany.

Another category of policy proposals called for EU soil policy to **prioritize the protection of intact soils**. The following statement in the civil society paper (FAI, 2022) exemplifies these proposals:

“We ask that a special chapter of the Soil Health Law be dedicated to the protection of intact soils, such as those covered by forests, pastures, bogs, wetlands or grasslands: they contain the largest continental stock of organic carbon and host the most significant repository of terrestrial biodiversity in the entire European continent. The establishment of mandatory targets on conservation of intact soils, together with those for the improvement of the ecological status of cultivated soils, must be adequately prioritized.”

This type of proposal was identified in statements made by 6 of the stakeholders, namely the members of the civil society coalition as well as the Danish Ministry of Environment.

Another type of proposal concerned the **reclamation and regeneration of degraded, sealed, or contaminated soils**. The following statement in the civil society paper (FAI, 2022) is an example of these proposals:

“reclaim and regenerate the soils of degraded, sealed or contaminated sites.”

This type of proposal was made by the 5 members of the civil society coalition.

The final type of proposal identified in statements made by members of the civil society coalition concerns **improving the use and management of organic waste for soil regeneration**. The following statement in the civil society paper (FAI, 2022) exemplifies these proposals:

“We further urge that the opportunity provided by the possibility of regenerating soils through the biocycle of organic wastes is not lost. With the whole EU starting of separate food waste collections and treatment from 2024, the opportunity is to return up to 15 million more tons p.a. of high quality compost to soil. To ensure materials fit

for purpose, the Fertiliser Regulation will possibly require strengthening while the quality of inputs through source separation collections will need to be defined and implemented to avoid soil contamination.”

These proposals were also made by the 5 members of the civil society coalition.

5.2.3. Main cross-coalition policy proposals

The most common policy proposals shared by stakeholders with differing justice perspective concerned **improving research on and monitoring of soil health and soil biodiversity** as well as **developing or defining soil health indicators**. The following statement made by the German Environment Agency (2022) illustrates this type of proposal:

“We agree that a key environmental impact of the planned intervention will be the impact on soil biodiversity. The identification and monitoring of a good soil biological status (along with good physical and chemical status) will allow for measuring and managing the goals set for soil biodiversity. We suggest that the derivation of an indicator for soil biodiversity for different soils under different land uses would be possible starting from data rich groups. The definition of an ‘earthworm indicator’ could in our opinion be formulated till 2025. Indicators for other soil groups (e.g., soil mesofauna like springtails and mites) would need dedicated efforts, but their development should be pursued with targets till 2030. In our opinion, also the derivation of soil quality standards for priority substances should be pursued until 2025 (e.g. for priority chemicals and/or key regulated products). The status of the soil environment should be monitored and results used to set managements targets” (p. 10).

Overall, 14 different stakeholders made statements indicating this category of proposals. The largest group of stakeholders making this type of proposal were 6 stakeholders with a predominantly libertarian justice perspective, namely the BDI, the Carbon+ Farming Coalition, the ICL Group, Syngenta, the VCI, and the Wirtschaftskammer Österreich. Furthermore, the 4 NGOs in the civil society coalition, namely the EEB, the FAI, France Nature Environnement, and the NABU, also made similar statements. Novamont did not make a comparable statement. Finally, 6 stakeholders with mixed justice perspectives made comparable statements, namely the BUND, the Danish Ministry of Environment, the German Environment Agency, the ICLEI, and WWF Germany. It is notable, that the justice perspective that all these stakeholders with mixed perspectives have in common to some degree is liberal egalitarianism. It is also noteworthy that there were a number of more specific proposals within this larger category shared by several of the stakeholders; these included calls for improvement of the LUCAS monitoring system and calls for the development and definition of soil health indicators.

Another related but distinct policy that was supported by a relatively large number of stakeholders was what, depending on the stakeholder, was referred to as the **soil health index** or certificate or the soil protection passport. The following statement made in the civil society paper (FAI, 2022) exemplifies these proposals:

“All that premised, we are aware of the presence of important knowledge gaps about the state of soil at the level of territorial representation: the huge diversity of soil types and the strongly site-specific character of soil interactions with climatic, biological, geological and land-use-related pressures constitute a major problem in drawing accurate maps at a detailed scale, that only partly can be realistically filled by the improvement of soil evaluation techniques. For this reason, we consider the development of a tool such as the soil health index at the level of individual land parcels, to be calculated and used in each single land transactions, to be a key innovation: acknowledging that the commercial valuation of soil cannot disregard its health status is an element of transparency in trade but, above all, it is a useful incentive to evaluate and enhance the efforts of soil care implemented by the owners.”

This type of proposal was identified in statements made by 8 different stakeholders. These included the 5 members of the civil society coalition, as well as Bayer, the ICL Group, and the BUND. Cefic did not express opposition to the soil health index, as many of the other predominantly libertarian stakeholders did, but it argued that a soil health certificate should not preclude the transfer of land with a less than “healthy” soil status.

Another common type of statement regarding policies made by stakeholders with varying justice perspectives was expressing the **importance of taking biogeographical differences into account** in the EU Soil Health Law. Many of these stakeholders therefore also proposed that decisions about the specific solutions and implementation should be left to the member states or even actors at the local level. The following statement made by the Carbon+ Farming Coalition (2022) illustrates this category of statements:

“Given the challenges presented by the diversity of soil types (EU has 23 out of the 30 major soil groups) and climate conditions in Europe in establishing universal ranges for identified KPIs, an EU Soil Health Law should have local and regional flexibility and be supported by the best locally relevant science. Nonetheless, already existing models can integrate several measurements and make them comparable. One such model is the Biodiversity and Ecosystems Index. Efforts like this offer the potential to illustrate consolidated progress at EU level while acknowledging regional distinctions” (p. 7).

This type of statement was made by 10 different stakeholders. These included 6 stakeholders with a primarily libertarian justice perspective, namely Bayer, the Carbon+ Farming Coalition, the Landwirtschaftskammer Österreich, VCI, the Wirtschaftskammer Österreich, and the Wirtschaftskammer Vorarlberg. However, CIHEAM Bari, the Danish Ministry of Environment,

the German Environment Agency, and the ICLEI also made statements of this sort. Again the main commonality between all 4 of these stakeholders, as well as with some of the predominantly libertarian stakeholders, was that they shared a liberal egalitarian justice perspective to some degree.

A similarly common category of proposals called for **integrating EU soil policy with existing, related regulations and ensuring coherence between regulations**. Among this category of proposals there were several statements calling specifically for integrating EU soil policy with the CAP regulation as well as statements calling for the integration of EU soil and water management. The following statement made by the DVGW (2022) exemplifies this larger category of proposals:

“DVGW underpins that in the preparation of the upcoming Soil Health Law the coherence and interactions with other relevant EU policies and Initiatives should be fully considered (WFD, DWD, the EU Zero Pollution Action Plan, F2F-Strategy, Climate adaption Strategy, "Fit-for-55" package, etc.).”

Overall, this type of proposal was made by 11 different stakeholders. These included 6 stakeholders with a primarily libertarian justice perspective, namely Bayer, Cefic, the Carbon+ Farming Coalition, Syngenta, the VCI, and Yara. The DVGW and the German Environment Agency, both stakeholders with a predominantly liberal egalitarian perspective, also made this type of proposal. The Danish Ministry of Environment and the University of Bologna, both stakeholders with mixed justice perspectives, also made this type of statement. Finally, the WWF Germany, a stakeholder with a mixed but predominantly multispecies justice perspective also made this type of proposal. Again, the majority of these 11 stakeholders had made some statements indicative of an EU-level liberal-egalitarian justice perspective, with the exception of Bayer and the VCI.

The final relatively common category of proposals consisted of calls for **policies aimed at increasing or maintaining carbon storage in soils**. Of these, the most common proposals were calls for **suggesting, encouraging, or upholding pasture feeding to maintain or increase soil organic matter or carbon**. The following statement made by FOUR PAWS (2022) illustrates this type of proposal:

“The conversion of grasslands and forests into arable land not only releases tonnes of CO2 but leads to soil erosion and humus loss. Sustainable grazing stimulates root growth, which helps produce more biomass below ground; in turn building humus and storing carbon in the soil. Increasing the root mass in soils has a key role in retaining water function and thus not only retains water and reduces erosion, but makes land more resilient against floods and droughts. Given the evolutionary capacities of ruminants to draw nutrition from grass, unlike humans, grasslands can be part of a sustainable food system“ (p. 1).

This type of call for maintaining or encouraging pasture feeding was made by 8 different stakeholders. Five of these stakeholders were the members of the civil society coalition, namely the EEB, the FAI, France Nature Environnement, the NABU, and Novamont. Two of the stakeholders, namely FOUR PAWS and WWF Germany shared a predominantly multispecies justice perspective, while the final stakeholder, the BUND, had a mixed but predominantly liberal egalitarian justice perspective. For the sake of completeness, it is important to note that both FOUR PAWS and the WWF Germany also called for **reducing numbers of farm animals**, while the members of the civil society coalition named pastures as only one type of intact soil in need of protection. This is important, because while certain types of pasture feeding appear to be beneficial for soil health and soil organic carbon content in certain soils (Teague et al., 2011), pasture feeding, particularly in high numbers, can also have detrimental effects on ecosystems and soil health, including soil organic carbon content (Ambos et al., 2000; Cluzeau et al., 1992; Lai & Kumar, 2020). Another type of proposal related to soil carbon consisted of **support for some type of carbon farming**, especially on organic and peat soils. The following statement by Novamont (2022) exemplifies this type of proposal:

“The application of compost in soil allow to obtain advantages in terms of carbon sink and reduction of GHG emissions, by incorporating carbon in soil. In this sense, Carbon farming should be promoted, as a way to increase soil carbon sequestration through a variety of agricultural methods, while also preserving and restoring soil health through the increase of soil organic matter.”

This type of proposal was made by 3 stakeholders with differing justice perspectives, namely the BUND, Novamont, and Syngenta. The final type of proposal related to soil carbon consisted of calls specifically for **rewetting or restoring peatlands and similar organic soils**. The following statement made by the Danish Ministry of Environment (2022) illustrates this type of proposal:

“The draining of peatlands and other organic soils are an important source of greenhouse gas emissions. It is important to rewet these soils by recreating the natural hydrology on these soils. It is important that a future law does not delay the effort at national level to rewet both peatlands (12 percent organic matter) and other organic soils (6-12 percent organic matter). The EU should consider broadening the focus on organic soils to include those soils containing 6-12 percent SOM. Danish research has found just as high greenhouse gas emissions from soils containing 6-12 percent SOM as those containing >12 percent SOM” (p. 4).

This type of proposal was also made by 3 stakeholders with different justice perspectives, namely the Danish Ministry of Environment, the DVGW, and WWF Germany.

Finally, there were three miscellaneous policy proposals made by two or more stakeholders. The first called for **suggesting or supporting intercropping** to improve or

conserve soil health. The following statement by the BUND (2022) exemplifies this type of proposal:

“Thus, we demand that the EU Soil Strategy [...] suggests perennial coverage of arable land by intercropping” (p. 4).

This type of proposal was made by 3 different stakeholders. Two of these stakeholders, the BUND and the ICLEI, shared a predominantly liberal-egalitarian justice perspective. The other stakeholder, WWF Germany, had a predominantly multispecies justice perspective. The second type of proposal called for **defining and implementing a land-take hierarchy**. The following statement by the Carbon+ Farming Coalition (2022) illustrates this type of proposal:

“Land is a limited resource, and it must cover different uses such as the production of food, feed and fiber, the production of biomass and bioenergy, residential spaces for the public, carbon storage in land and soils and nature conservation. [...] Understanding the context and tensions arising from high competition for land-use, we agree with the Soil Directive regarding the need of defining and implementing a “Land Take hierarchy”, to ensure that the fertile land is not unduly allocated to nonagricultural land-uses that do not make use of these increasingly scarce nutrient resources” (p. 9).

This type of proposal was also identified in statements made by 3 stakeholders with differing justice perspectives, namely the Carbon+ Farming Coalition, the ICLEI, and WWF Germany. The final type of policy proposal called for the **introduction of a passport for excavated soil**. The following statement by the German Environment Agency (2022) exemplifies this type of proposal:

“With the increase of mass flows of recycled materials and soil-like substances, their pollutant content in the input fraction but also in the cumulative deposited fraction must be monitored. This requires registration and documentation, especially when SVHC may be involved and residual levels of contaminants remain within the materials. Otherwise, the beneficial practices of the circular economy will worsen the chemical conditions of soils and degraded soils as well as land.

Documentation has proven to be an important tool to preserve the state and to record changes. In this respect, such reports, certificates and passports also play an important role in the preservation of evidence. The transferability of collected data and information is essential in order to minimize unnecessary expenditure for additional investigations and assessments” (p. 8).

This type of statement was made by 2 stakeholders with different justice perspectives. One was the Danish Ministry of Environment, with a mixed justice perspective, the other was the

German Environment Agency, with a mixed but predominantly liberal egalitarian justice perspective. However, it is notable that this proposal was made by the two public authorities among the analyzed stakeholders.

6. Discussion

In this chapter, I will first discuss some general insights from and prominent aspects of the results, with a focus on relating the results of the coding and network visualization to elements of the Advocacy Coalition Framework and remaining aspects of the Critical Discourse Analysis. Under 6.2., I will discuss limitations of this research project. Under 6.3., I will present and discuss some theoretical implications of the analysis. Then, under 6.4., I will discuss practical implications of the results. Lastly, under 6.5., I will address some possible avenues for future research.

6.1. General discussion of the results

In this subchapter, I delve into a comprehensive discussion of the findings and critical reflections on the dominant justice perspectives that emerged from my analysis of stakeholders' responses to the proposed EU Soil Health Law. My research revealed a diverse landscape of justice perspectives, coalition dynamics, policy proposals, and potential strategic choices that deserve careful consideration. The results of the analysis of the justice perspectives and policy proposals of the stakeholders in EU soil policy indicate the presence of multiple justice perspectives among the analyzed stakeholders and a diversity of preferences regarding EU soil policy. Furthermore, the results indicate a predominance of two of the justice perspectives, namely libertarianism and liberal egalitarianism. In contrast, cosmopolitanism and multispecies justice were somewhat less common perspectives among the analyzed stakeholders, while the capabilities approach and critical perspectives were quite rare. Notably, I identified the forming of at least two distinct coalitions, which were identified based on a preponderance of policy proposals and shared or similar responses: one consisting primarily of businesses and business associations rallying around a libertarian justice perspective, and another comprising mainly civil society stakeholders with a more eclectic combination of justice perspectives. The results of the analysis of policy proposals made by two or more stakeholders indicate that while there are a number of policy proposals shared primarily by stakeholders belonging to one of the two main coalitions, there are also some aspects of EU soil policy that multiple stakeholders with differing justice perspectives appear to agree on and that offer some insight into possible grounds for compromise among stakeholders in EU soil policy.

One notable aspect of the results of the analysis of justice perspectives that was briefly addressed under 5.1.1. was the preponderance of codes for references to certain dimensions of justice as opposed to others. In particular, references to causes of injustice and justice mechanisms were identified more often than references to subjects of justice, spatial scales, and temporal scales. For several of the justice perspectives, this also correlated with the apparent usefulness of the different dimensions in identifying a particular justice perspective.

There are several possible explanations for this phenomenon. One explanation that was alluded to under 5.1.1. is that causes of injustice and justice mechanisms are more distinct and clearly defined for each justice perspective, while, for example, the temporal scales that are considered can be the same between perspectives or can differ within a given perspective. While there are challenges that arise from attempts to conceptualize and implement any form of intergenerational justice, intergenerational considerations have been included in conceptualizations of all the justice perspectives that were considered in the analysis for this thesis (Campos, 2018; Celermajer & O'Brien, 2021; Malin & Ryder, 2018; Steiner & Vallentyne, 2009; Wolf, 2009). This is reflected in the fact that references to intergenerational dimensions of justice were made by 22 of the 31 stakeholders and there was not a particular predominance of references to intergenerational justice among any group of stakeholders with shared justice perspectives. However, it is also likely that the preponderance of references to certain dimensions of justice in the stakeholders' responses can be partly attributed to the nature of the data I analyzed. As much of the analyzed data consisted of responses to the EC's Call for Evidence and was therefore focused on policy proposals, it makes sense that "justice mechanisms" were the justice dimension that was referred to most often by the stakeholders and therefore identified most often in the analysis.

6.1.1. Critical reflection on libertarianism as the predominant justice perspective

As the results indicate that libertarianism is the predominant justice perspective among the analyzed stakeholders and that there is a higher degree of coordination and coalition-forming among stakeholders with a predominantly libertarian justice perspective in contrast to, e.g., stakeholders with a liberal-egalitarian justice perspective, it is important to consider reasons for this predominance as well as its possible implications. This phenomenon could be interpreted as an example of corporate and industry lobbying, with business and industry stakeholders being particularly motivated to act by the fact that their "economic interests are at stake" (Tselengidis & Östergren, 2019, p. 566). An important aspect of this phenomenon is the fact that stakeholders giving feedback on the Call for Evidence included both a number of sectoral or business associations (e.g., the VCI) and individual companies (e.g., Bayer). As Hanegraaff and Poletti (2021) explain, companies' "decisions to lobby alone, either bypassing sectoral associations or acting alongside them, multiplies the number of demands that are brought to the attention of policy-makers, generating potentially biased systems of interest intermediation" (p. 840). Furthermore, the results of my analysis are consistent with results of research indicating relatively high levels of representation of business groups in interest representation at the EU level versus other stakeholder groups (and in contrast to interest representation at more international or global levels of policymaking), particularly in issue areas concerning agricultural stakeholders (Berkhout & Hanegraaff, 2019). However, according to Berkhout and Hanegraaff (2019), it is not clear why business groups tend to be so strongly represented at the national and EU level, e.g., if, for instance, civil society "groups 'flee' inhospitable national interest systems or whether these groups are largely attracted to transnational opportunities" (p. 286). While Tselengidis & Östergren (2018) speculate that

business groups have developed particular “skills for developing strategic networks, formulating favourable advocacy statements and gaining access to channels for the effective dissemination of” (p. 566) their messages at the EU level, there is still a lack of scientific evidence of disparities in resources and coordination between business groups and other stakeholder groups at the EU level.

Given that the libertarian justice perspective is so dominant, it is also necessary to explore the consequences that this might have for an EU Soil Health Law. For one, the failure of past soil legislation may be attributed in part to policymakers' inability to address the concerns of member states with strong libertarian stakeholder influence, as noted by Chen (2020). For this reason, it may be particularly crucial for policymakers to consider the feedback given by stakeholders with a predominantly libertarian justice perspective if they want the ultimate proposal for an EU Soil Health Law to be accepted by all Member States. However, incorporating too many of the policy proposals made by libertarian stakeholders could lead to a watered-down version of such a law with a tendency toward protecting the short-term economic interests of large chemical and agricultural businesses as opposed to protecting long-term soil health from the potential adverse impacts of those same businesses and industries (cf. Hanegraaff & Poletti, 2021; Jung et al., 2011). For instance, while the calls for incentives made by 7 different libertarian stakeholders are not strictly typical of a libertarian justice perspective (cf. Hansen, 2016), they are compatible with lobbying attempts “to secure policies that distribute wealth in favour of [their] particular interests” (Hanegraaff & Poletti, 2021, p. 841). Similarly, while calls for the implementation of national legislation made by some libertarian stakeholders might appear to be at odds with their justice perspective, they make sense if understood as a strategy to prevent potentially more rigorous EU soil legislation.

Other policy proposals made by the predominantly libertarian stakeholders are more typical of this justice perspective, including appeals to reduce costs, avoid overregulation, and preserve the economic freedom of market actors either by simply not passing a soil health law or by not including or limiting policies such as a soil health certificate, a passport for excavated soil, or requirements for the remediation or restoration of contaminated sites. With a dominance of this perspective and such proposals, a number of important aspects that would likely be addressed by stakeholders with justice perspectives that were underrepresented among those that gave feedback to the Call for Evidence might not be considered by EU policymakers. For instance, as Puig de la Bellacasa (2015) argues, a more critical perspective of “a feminist politics of care” (p. 695) would seek to consider and protect instances of ecological “soil care, [which are] obscured or marginalized as ‘unproductive’” (p. 695) by those primarily concerned with the continued functioning and growth of free-market capitalism. On a similar note, while libertarians tend to think on transnational scales, they are usually preoccupied with the success of individuals within dominant, capitalist systems and can be blind to the larger consequences of such systems, e.g., the externalization of harm to soils, human health, and future generations fueled by a focus on short-term and individual

property, productivity, and profits, in contrast to other justice perspectives (cf. Alkire, 2005; Freeman, 2005; Hanegraaff & Poletti, 2021; Puig de la Bellacasa, 2015).

Another notable aspect of the feedback given by some of the stakeholders with a predominantly libertarian justice perspective was a tendency for them to communicate their perspective in a way that suggested they were likely to be victimized by an EU Soil Health Law, even though it appears that libertarian stakeholders successfully contributed to blocking the initial attempt at EU soil legislation. From the perspective of the Advocacy Coalition Framework, this could be interpreted as an example of the “devil shift”, or the tendency of members of a coalition to view their opponents as more powerful and more malevolent than they are (cf. Sabatier et al., 1987; Fisher et al., 2016). However, their tendency to communicate their feedback in such a way could also be a strategy to bolster their arguments and position in the debate as opposed to an unconscious overestimation of their opponents’ power and perceived malevolence. Interestingly, I also observed that business associations tended to adopt clearer and stronger positions, perhaps due to their primary focus on representing economic interests rather than promoting a sustainable image. Overall, the high number of libertarian responses and the intensity of some stakeholders’ reactions, as opposed to most stakeholders with other perspectives, could be linked to the economic interests at stake. Profit-oriented businesses, fearing stricter regulations, might perceive an effective soil health law as a significant threat, unlike most NGOs who might be more likely to welcome stricter regulations.

6.1.2. Reflection on other justice perspectives

The results also indicated a prominence of **EU-level liberal egalitarianism** as the second most common perspective. This aligns with the fact that most of the analyzed text was feedback provided in response to the Call for Evidence for the potential EU Soil Health Law, as the responses were focused on EU-level policy and therefore more likely to contain references to EU-level justice mechanisms as opposed to, for example, justice mechanisms aimed at redistribution of benefits and burdens at a global level consistent with a cosmopolitan perspective. It is possible that stakeholders that have justice perspectives that go beyond EU-level liberal egalitarianism might still refer to justice mechanisms indicative of EU-level liberal egalitarianism in their feedback, because they expect that this is the sort of justice mechanism that is most likely to be included in legislation by EU policymakers.

Within the **coalition of civil society actors**, I observed a mixture of justice perspectives, including cosmopolitanism, liberal egalitarianism, libertarianism, and multispecies justice. This combination could serve strategic purposes; it is possible that they anticipated the “devil shift” in the libertarian coalition’s perception of their opponents based on past experiences and used a more moderate mixture of justice perspectives in their advocacy for the law to counter a negative framing of themselves and the law by the libertarian stakeholders and avoid a repeated withdrawal of EU soil legislation. From the perspective of the ACF, such a strategic choice could also be interpreted as an attempt to break free from a cycle of “devil shift” in EU soil policy discourse (cf. Fisher et al., 2016; Sabatier et al., 1987). However, it is

also possible that the members of the civil society coalition either all share a relatively moderate combination of justice perspectives or that this moderate combination is the smallest common denominator among the members of this coalition.

The results also indicated that there might be a strategic softening of feedback from stakeholders with **less common justice perspectives**, such as multispecies justice, the capabilities approach, or critical perspectives, which may be driven by concerns about opposition from the libertarian coalition and policymakers. For instance, a stringent capabilities approach might entail calls for policies that are much more focused on the well-being of those outside of the EU and on marginalized groups in European society than are currently politically acceptable in most EU countries or at the EU level. One aspect of the capabilities approach involves questioning mainstream metrics of progress, development, and well-being such as GDP and income (cf. Gasper, 1997), something that has certainly not yet arrived in the mainstream of European politics. Similarly, taking a critical perspective or a multi-species justice perspective would involve questioning the ways in which current political and economic systems uphold inequalities and injustices to an extent that is likely not currently accepted by most EU policymakers (Ramcilovic-Suominen, 2023), which may necessitate a more pragmatic approach by stakeholders with such perspectives.

6.2. Limitations

In this subchapter, I critically examine the limitations of my research, acknowledging the potential constraints and areas where it may fall short of achieving a comprehensive understanding of the complex landscape of justice perspectives in EU soil policy discourse. First, there are a couple of limitations inherent in the sampling process used to identify stakeholders and documents for analysis. Selecting only stakeholders with 50 or more employees may have contributed to limiting the justice perspectives on EU soil governance that were included, as, e.g., these stakeholders may have more mainstream perspectives than smaller stakeholders. However, this was to some degree a purposeful limitation of results, as one of the ultimate objectives of this research was to identify potential implications of these perspectives for the development of EU soil health policy, and the perspectives of larger stakeholders are more likely to be considered in this development process. My research was also limited to stakeholders who responded in English and German, which may inadvertently exclude justice perspectives that are more common among those who communicate in other European languages. This linguistic bias places an emphasis on stakeholders from German-speaking countries such as Germany and Austria, potentially limiting the diversity of perspectives included in my analysis. However, this was also a conscious limitation to ensure a higher quality analysis than if I had had to depend on translations from languages that I do not speak.

Additionally, focusing on publicly available statements made by stakeholders as opposed to conducting interviews or surveys came with its own set of limitations. The absence of these methods limited the triangulation of data or the extent to which I could corroborate findings through multiple sources (cf. Clark et al., 2021). Moreover, the data I

analyzed may not be as tailored to my research questions and framework as data collected through interviews or surveys would be. This may have limited the degree to which stakeholders' justice perspectives could be identified, as the documents in question included mostly implicit rather than explicit references to justice dimensions of soil governance. My impression was that this may have made identifying a more nuanced perspective such as the capabilities approach particularly challenging, as stakeholders that hold such a perspective might not make clear enough references to dimensions of this perspective without being explicitly asked about them (cf. Kalfagianni, 2014). However, not conducting interviews was also a necessary limitation based on the choice to focus on a larger number of stakeholders and to get an overview of their perspectives, as in-depth interviews with this number of stakeholders would not have been feasible within the time limits of this project. One could also argue that this methodology had a higher degree of ecological validity compared to primarily using interviews or surveys, because the stakeholder feedback was not given as a response to questions clearly aimed at identifying their justice perspectives. This may have contributed to making their (largely implicit) references to their justice perspectives more natural than if they had known that their responses would be used for this purpose, hence avoiding potential response bias (cf. Clark et al., 2021).

One of the primary challenges in qualitative research, including this research project, is addressing issues of reliability and validity. As Clark et al. (2021) explain, the largely qualitative cross-sectional research design that was selected for this project generally tends to have relatively weak internal validity, as it can be used to discover associations between, e.g., stakeholder groups and certain justice perspectives but does not render results that can be used to "make unambiguous causal inferences" (p. 53) as could be the case for a quantitative experimental research design. However, credibility, an equivalent to internal validity for qualitative research, was improved through triangulation to a limited degree by analyzing stakeholders' justice perspectives based on not just the feedback given to the Call for Evidence but also additional relevant statements published by the stakeholders, where these were available. External validity is also not particularly strong, as stakeholder selection was not done via random sampling but rather by a combination of convenience, criterion, and stratified purposive sampling. In this case, transferability and dependability, equivalents to external validity and reliability for qualitative research, were improved by attempting a relatively "thick" description of the research and analyzed data, in the sense of offering detail about research steps and clarifying the meaning of stakeholder statements (cf. Brink, 1993; Clark et al., 2021; Lincoln & Guba, 1988). While I took measures to ensure the trustworthiness of my findings, such as employing a systematic and iterative coding process and using a predefined justice framework, it is important to recognize the remaining subjectivity inherent to qualitative analysis. As such, my findings should be viewed as one interpretation of multiple possible interpretations.

An issue of external reliability arises from the fact that based on the timing of the research project, only feedback to the first round of consultation for the proposed EU Soil Health Law could be included in the analysis (cf. Clark et al., 2021). The factual summary of

the second round of consultation was published at the end of February 2023 and indicated that there were a large number of responses from outside the EU, most notably from India. While there was a predominance of certain perspectives, such as libertarianism, in the analyzed feedback, a cursory perusal of the responses to the second round of consultation indicates somewhat stronger tendencies toward cosmopolitanism and multispecies justice, particularly in the feedback from India (EC, 2023). It is conceivable that the lack of participation of stakeholders from outside the EU in the initial round may be linked to their distance from EU processes compared to stakeholders within the EU, which may have influenced their initial level of engagement and feedback.

It is also important to consider the potential for bias in identifying and categorizing justice perspectives, including the possible existence of a kind of "devil shift" phenomenon at an individual level (cf. Fischer et al., 2016). As addressed in the subchapter on ethics and positionality (4.4), I may have tended to more readily recognize and broadly categorize arguments or perspectives such as libertarianism that contrast with my personal beliefs while taking arguments that align with my beliefs for granted to some extent. However, given the significant number of stakeholders with a clear libertarian perspective and the formation of coalitions among them which were identifiable via similar phrasing, this bias would likely only result in a minor overestimation of libertarianism relative to other perspectives.

Finally, there are a couple of limitations related to the justice framework that was central to my analysis. The use of a predefined justice framework, while valuable for categorizing perspectives, may have some limitations. Justice perspectives are not monolithic, and the framework may not capture the nuances within each perspective. While the framework allowed me to broadly identify stakeholders' (often multiple) justice perspectives, it still lacks a certain degree of granularity. For instance, there are more and less utilitarian conceptualizations of the capabilities approach that could be identified with a more granular version of the framework (Gasper, 1997). However, to some degree there will always be a necessary tradeoff between achieving a relatively high degree granularity and giving a relatively clear and aggregated overview of stakeholders' perspectives (cf. Forde et al., 2013). On a related note, there may be a broader limitation inherent in the application of the justice framework, particularly when applied to this type of general feedback data as opposed to data from more justice-specific surveys or interviews. The justice framework may limit the analysis of stakeholder perspectives in comparison to applying a broader lens such as a worldviews framework (cf. de Vries, 2019). For instance, in the statements and documents analyzed for this research project, it was, at times, difficult to differentiate between certain justice perspectives and more general worldviews, e.g., between a libertarian perspective and a libertarian or neoliberal worldview, which is not necessarily limited to questions of justice. Similarly, some stakeholders, including some that did not fulfill all the sampling criteria, primarily referred to policy proposals that gave an indication of a "Modernity" worldview but not necessarily a specific justice perspective (cf. de Vries, 2019). Applying a worldviews lens might lead to a more comprehensive understanding of stakeholder beliefs by enabling the identification of a broader spectrum of aspects in stakeholder statements beyond those

directly attributable to a particular justice perspective. Therefore, combining both justice perspectives and worldviews in an analysis could contribute to richer insights into stakeholder beliefs and proposals.

6.3. Theoretical implications

Referring to the final paragraph of subchapter 6.2., there are some limitations of the expanded planetary justice framework when applied to this type of general data, which was not generated to specifically analyze justice perspectives. Therefore, it is possible that a combination of Biermann and Kalfagianni's planetary justice framework (2020) with a broader framework such as de Vries' worldview framework (2019) might be easier to apply to data that is not specifically tailored to justice perspectives and could help to gain broader insights into stakeholder's beliefs and proposals. However, this could weaken the focus on justice. Therefore, each researcher should ultimately decide what aspects of stakeholders' perspectives and beliefs are most important for this type of analysis and their specific research questions and ensure that the framework that they choose is aligned with their research questions and methodology.

Another implication of the results of this research is that it is indeed useful to include a multispecies justice perspective in an analysis of justice perspectives, particularly when it comes to issues such as soil health and soil degradation that have relatively clear multispecies justice dimensions. The results indicate that multispecies justice was the primary justice perspective for 2 of the analyzed stakeholders, while 12 other stakeholders made at least some reference to dimensions attributable to a multispecies justice perspective. While this was not included in the adaptations to the planetary justice framework for this project, it could be valuable to consider whether including a dimension concerning stakeholders' perspective on nature in the planetary justice framework could help to distinguish between stakeholders with a multispecies justice perspective and those with other justice perspectives. In particular, the question of whether stakeholders and other actors have utilitarian or non-utilitarian perspectives on nature might help to identify a multispecies justice perspective in contrast to other perspectives. While anthropocentrism or the identification of humans versus non-human beings as subjects of justice was included in the analysis for this thesis, in the context of soil health and perhaps other justice issues concerning the environment, anthropocentrism may become most clear not necessarily where there are explicit references to humans as subjects of justice but rather where nature or non-human beings are framed as resources for humans as opposed to being considered for their own sake (cf. Loreau, 2014).

When considering the dimensions of justice included in the adapted planetary justice framework for this research project, it becomes apparent that the inclusion of temporal dimensions did not in fact contribute to a better understanding of the different justice perspectives, as intergenerational aspects of soil justice were referred to by the majority of the stakeholders. However, there was some indication that public authorities may be particularly concerned with intergenerational dimensions of justice, indicating that there might be some correlation between the stakeholder category and the degree to which they

consider intergenerational aspects of justice. Therefore, it could be interesting to include temporal dimensions of justice in future iterations of the planetary justice framework. Moreover, while there appear to be few explicit proposals concerned with incorporating intergenerational justice into EU soil policy, the fact remains that soil health is an issue with intergenerational dimensions and it is possible that considerations of intergenerational justice will become more pronounced in the development of soil policy as this policy subsystem is influenced by external advances in approaches to intergenerational justice (cf. Byskov et al., 2019; GOB Menorca, 2023).

Overall, the decision to consider elements of the ACF in this analysis of justice perspectives appears to have contributed to gaining a better understanding of existing and potential coalitions between stakeholders and to making the connection between justice perspectives and stakeholder coalitions as well as policy proposals more visible. For instance, the ACF can help to understand a certain degree of apparent divergence between the distribution of the identified justice perspectives and policy proposals made by stakeholders. This can be explained by conceptualizing justice perspectives as deep core beliefs or policy core beliefs (when they are specific to the policy subsystem), which are relatively resistant to change, and policy proposals as secondary beliefs, which are less resistant to change (cf. Weible et al., 2009). Therefore, the greater degree of overlap between some stakeholders on policy proposals as opposed to justice perspectives could be explained by the insight from the ACF that secondary beliefs are “more empirically based” (Weible et al., 2009, p. 123) and can therefore be adapted in accordance with, e.g., insights from policy-oriented learning. While this research project was not primarily focused on applying the ACF to the development of EU soil policy but rather on applying an expanded version of Biermann & Kalfagianni’s planetary justice framework to statements made by stakeholders in current EU soil policy, it shows that there is potential to combine elements of the ACF and the planetary justice framework in future theory and research aimed at understanding the role that justice perspectives may play in policy development (cf. Biermann & Kalfagianni, 2020).

6.4. Practical implications

The practical implications of the results of this research project are divided into implications and possible recommendations for EU policymakers and those for stakeholders. For **policymakers**, the results indicate that it is important and useful to consider justice perspectives or at the very least worldviews of stakeholders when developing soil policy and communicating with relevant stakeholders. This is especially the case for the perspectives of stakeholders that are likely to sway the opinions of decisionmakers, as evidenced by the role that libertarian justice perspectives played in contributing to the withdrawal of the Soil Framework Directive in 2014 (cf. Glæsner et al., 2014). Therefore, if policymakers’ goal is to pass and implement effective legislation aimed at preventing soil degradation and promoting soil health, it is important for them to frame the legislation in such a way that stakeholders who have significant influence on decisionmakers from the Member States are not opposed to the final legislation while still proposing a law that is likely to be effective. Considering the

dominance of a libertarian justice perspective among a significant number of stakeholders and the role that this perspective played in the withdrawal of the Soil Framework Directive, it will likely be necessary for policymakers to address the concerns of libertarian stakeholders in the EU Soil Health Law and include some version of the most common policy proposals made by libertarian stakeholders, such as incentives and science- and risk-based approaches. However, it could also be useful for policymakers to recognize the widespread references to aspects of liberal-egalitarianism among the stakeholders and the fact that liberal-egalitarianism appears to be the justice perspective shared, to an extent, by large proportions of the stakeholders that made similar policy proposals such as calls for improving research on and monitoring of soil health or taking biogeographical differences into account in the EU Soil Health Law.

Considering indications of a possible devil shift among stakeholders, it is important for policymakers to overcome impediments to developing and passing effective and efficient soil health policy posed by significant disagreements between stakeholders (cf. Fisher et al., 2016). Jenkins-Smith and Sabatier (1994) point to the role that cross-coalition learning can play in developing policies that are supported by a sufficiently large proportion of stakeholders and decisionmakers. However, they explain that cross-coalition learning “is more likely when an intermediate level of conflict is involved, when the issues are analytically tractable, and when a professional forum is utilised” (Jenkins-Smith & Sabatier, 1994, p. 191). Comparing the current state of soil policy in the EU to the cases mentioned by Jenkins-Smith and Sabatier, it is hopeful that there is a relatively broad cross-coalition consensus on the need for either new soil legislation or improved implementation of existing legislation in the EU. Additionally, the most common policy proposal indicates a relatively broad consensus on the need for improved research on soil health and the development of indicators aimed at increasing the tractability of the issues. However, it is worrisome that similar legislation was withdrawn in 2014 based on objections that are similar to some of the objections made by libertarian stakeholders in recent statements, indicating that there is still a significant level of conflict between different stakeholder groups about the best way to address issues of soil health and degradation at the EU level. While the current thorough consultation process is likely a step in the right direction, ensuring a high degree of inclusion of stakeholders in the process of policy development through the involvement of a professional forum of some kind might help to increase the potential for cross-coalition learning (cf. Jenkins-Smith & Sabatier, 1994).

For **stakeholders**, the results show that several stakeholders with a predominantly libertarian justice perspective have already formed one or more coalitions around this perspective. For some of the other stakeholders, it is somewhat less clear what their current aims and strategies are. The civil society coalition appears to have formed around a mixture of justice perspectives and moderate policy proposals, which are distinct from the proposals made by libertarian stakeholders but do not clearly advocate for any one justice perspective. It is possible that this is simply the smallest common denominator among the members of the civil society coalition. Alternatively, it is possible that this is a strategic choice to advocate for a middle-of-the-road law that is less likely to face opposition from more libertarian

stakeholders and decisionmakers. However, if some of the stakeholders with less common justice perspectives want their perspectives to serve as a strong alternative to, e.g., the dominant libertarian perspective, it could be useful for them to form a stronger coalition around alternative justice perspectives and communicate these more clearly in future discourse.

6.5. Future research

There are a number of approaches to future research in this area that could be considered when taking the results and the limitations of this research project into account. First, the limitations of this research that were addressed in subchapter 6.2. indicate that interviews with or surveys of stakeholders could help to gain a clearer and more in-depth understanding of their justice perspectives and the ways in which they relate to their policy proposals. Second, a justice framework with higher degrees of granularity could be used to explore the usefulness of adding sub-perspectives to this type of analysis. Alternatively or in combination with such an approach, the analysis could include worldviews as a related but distinct aspect of stakeholders' perspectives to offer a broader picture of stakeholders' beliefs and motivations and identify connections between worldviews and justice perspectives. Third, an analysis of EU policy processes and discourses around soil policy over time could have the potential to include a broader range of stakeholder perspectives and give more insight into the dynamics of stakeholder participation and policy development. This could also offer an opportunity to explore a more comprehensive combination of the ACF with the planetary justice framework, as the ACF is particularly appropriate for the analysis of policy developments over longer periods of time. Finally, an analysis of justice perspectives in the EU Soil Health Law once a legal document has been developed and published could offer clearer insights into the ways that stakeholders' justice perspective may be influencing the development of EU soil policy and the justice dimensions of the law.

7. Conclusion

This research sought to provide a better understanding of stakeholders' justice perspectives regarding the proposed EU Soil Health Law and how they relate to stakeholder coalitions and policy proposals by conducting a critical discourse analysis of stakeholder statements using an adapted version of the planetary justice framework developed by Biermann and Kalfagianni (2020) as well as insights from the ACF. For the purposes of this analysis, the perspective of multispecies justice was added to the perspectives of liberal egalitarianism, cosmopolitanism, the capabilities approach, libertarianism, and critical perspectives, which were already included in Biermann and Kalfagianni's framework, as multispecies justice includes a number of considerations that are likely to be particularly relevant in the context of soil health. Statements made by 31 stakeholders in EU soil policy were analyzed to identify their justice perspectives and policy proposals as well as potential coalitions among them. Consideration of the principles of critical discourse analysis helped to critically examine the

statements made by stakeholders and the ways in which their discursive strategies appear to be aimed at upholding or destabilizing existing power imbalances.

The main research question concerned the justice perspectives of major stakeholders in the EU Soil Health Law proposed in 2022 and how these relate to coalitions and policy proposals. The results showed that, overall, the stakeholders made references indicative of all six of the justice perspectives included in the framework. However, there were strong differences in the frequency of references to the different justice perspectives. Based on the number of references indicative of the justice perspectives, libertarianism was the most common justice perspective among the analyzed stakeholders. Overall, 21 of the 31 stakeholders made references indicative of libertarianism. Moreover, libertarianism was the justice perspective with the most stakeholders, namely 6, that made references indicative of a single justice perspective. Additionally, similar or identical statements made by a number of libertarian stakeholders indicated the existence of one or more coalitions based on a libertarian justice perspective. The second most common justice perspective was liberal egalitarianism, with fewer individual references indicative of the perspective but the same number of stakeholders, namely 21 of 31, making such references. While the ways in which predominantly liberal-egalitarian stakeholders made their statements gave no indication of an existing coalition around a liberal-egalitarian perspective, some degree of liberal egalitarianism appeared to be a common thread among a number of stakeholders that made similar policy proposals despite not belonging to a recognizable coalition. In the case of liberal egalitarianism, only 1 stakeholder made references exclusively indicative of this perspective.

Most of the stakeholders made statements that indicated a mixture of justice perspectives. The remaining perspectives were less common, with 11 of the 31 stakeholders making references indicative of cosmopolitanism, 3 to 14 stakeholders making references indicative of multispecies justice, 3 stakeholders making references indicative of the capabilities approach, and 2 stakeholders making references indicative of critical perspectives. Interestingly, the clearest indication of an existing coalition beside the predominantly libertarian stakeholders was among a group of NGOs and one company that submitted a largely identical civil society paper as their main feedback to the Call for Evidence for the proposed EU Soil Health Law.

The policy proposals identified in the statements made by the analyzed stakeholders indicated that there were a number of proposals shared primarily by stakeholders within either the larger libertarian coalition or by stakeholders within the civil society coalition. However, there were also a number of shared policy proposals made by stakeholders with justice perspectives that diverged to a greater degree, with liberal egalitarianism often being the abovementioned common thread among stakeholders, even when they belonged to different coalitions and/or stakeholder groups.

The discussion of the results in the context of past developments in EU soil policy identified the enduring role of libertarianism as a common perspective among stakeholders in EU soil policy and a potential impediment to developing and passing effective soil legislation. Insights from the ACF helped to reflect on possible explanations for patterns

identified in stakeholder statements, such as a potential devil shift, and proffered some implications that EU policymakers may need to consider given the current landscape of stakeholders and coalitions. For instance, cross-coalition learning and resulting policy change may be facilitated by focusing on improving research on soil health and developing common indicators to increase the tractability of the issue of soil degradation. Furthermore, ensuring a high degree of stakeholder inclusion in the policy development process may also contribute to defusing potential conflicts among stakeholders with differing justice perspectives and increasing the potential for cross-coalition learning. Overall, this project helped to gain a better understanding of the role that stakeholders' justice perspectives play in forming coalitions and making policy proposals regarding EU soil policy and how these perspectives may be influencing and contributing to developments in EU soil legislation.

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