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Contested Climate Justice – Challenged Democracy

International Perspectives

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The Research Institute Social Cohesion (RISC) investigates social cohesion from a variety of disciplinary perspectives and methodological approaches, researching terms and concepts, sources and threats, consequences and effects, and historical, global, and regional contexts of cohesion. The RISC has been funded as a joint project by the Federal Ministry of Education and Research (BMBF) since June 2020 and comprises eleven sections throughout Germany. The RISC's members include the Technical University of Berlin, the universities of Bielefeld, Bremen, Frankfurt, Halle-Wittenberg, Hanover, Konstanz, and Leipzig, the Sociological Research Institute Göttingen, the Leibniz Institute for Media Research Hamburg, and the Institute for Democracy and Civil Society Jena.

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Volume 9

Noah Marschner, *Christoph Richter* and *Janine Patz* are research assistants in the research project "International Right-Wing Populism in the Context of Global Ecological Crises" (IRÖK) at the Research Institute Social Cohesion (RISC), section Jena. Dr. *Axel Salheiser* is the scientific director of the Institute for Democracy and Civil Society Jena, RISC section Jena.

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Preface

This book is the final outcome of the research project "Internationaler Rechtspopulismus im Kontext globaler ökologischer Krisen (IRÖK)" (International Right-Wing Populism in the Context of Global Ecological Crises) as part of the Forschungsinstitut Gesellschaftlicher Zusammenhalt/Research Institute for Social Cohesion (FGZ/RISC). RISC consists of eleven local sub-institutes and has been funded by the German Federal Ministry of Education and Research since June 2020.

The IRÖK project was located at the Institute for Democracy and Civil Society (IDZ), the Jena sub-institute of RISC from 2020 to 2024. It dealt with the anti-democratic crisis mobilisation from the far right in the field of climate discourse and climate policy. The research focus was not only the actors, strategies and dynamics of the far right, but also to the associated threats to democracy and social cohesion resulting from the climate crisis and from the far-right mobilisation.

In order to understand the dynamics behind current anti-democratic and climate protection regressive mobilisations in many industrialised societies, it is necessary to embed these developments into their broader global context. Climate change is a global, man-made crisis that is yet unequally and unjustly distributed. This international and interdisciplinary anthology brings together thirteen contributions by authors from eleven countries with diverse perspectives and methodological approaches. They reflect and analyse a broad variety of discourses, policies, attitudes, historical conditions, and current dynamics from different regions of the world that prevent, delay, slow down or counteract effective climate protection. This volume aims to raise awareness of the origins of the climate crises and the ways in which this crisis and societal responses patterns are linked to questions of equality, democracy, and human rights. By addressing factors that stand in the way of global cooperation in terms of climate protection this volume also raises the questions how cohesion between and within different geographical distant societies is challenged and how it could be developed in order to achieve societal resilience against current or upcoming transformation crises.

We would like to thank all of our authors for their time and dedication, without which this anthology would not have been possible within such an ambitious time framework. We would also like to thank Alvine Datchoua-Tirvaudey, Ann-Katrin Kastberg, Bernd Sommer, Birtan Eren Tombul, Jan Rau, Jan Wilkens Maik Fielitz, Matthias Quent, Mona Gusinde, Philip Koch, and Yannick Passeick for their support in reviewing the contributions, Hannah Pöhlmann and the entire team of Infotext GbR for the comprehensive proofreading, Nick Charles Gemmell for the support with translations, Sarah Lempp (RISC Leipzig) for coordinating the book series of which this volume is a part, Catharina Heppner and the team at Campus Publishers, and our Jena colleagues at FGZ/IDZ for their help and general support. We would also like to thank the Climate Social Science Network (CSSN), an important international platform for researchers and their work on issues of climate change, climate protection and climate justice, for providing contacts to some of the authors and for important impulses through their publications.

Noah Marschner, Christoph Richter, Janine Patz, and Axel Salheiser

Jena, March 2024

Introduction

Christoph Richter, Noah Marschner, Janine Patz, Axel Salheiser

Abstract

This volume covers international and multidisciplinary perspectives on the consequences of the unequal production and distribution of fossil wealth, the associated conflicts over the distribution of resources, power and responsibilities, and the mechanisms of their justification. The introduction presents some key theoretical terms and concepts that run through the contributions and can help to reflect more closely on the complex relationships between the different perspectives and spatial variances dealt with in this volume. While the first part of the introduction and the book is mainly dedicated to the structures and mechanisms of global inequality and the realities of the climate crisis in some countries of the Global South, the second part focuses on concepts of climate justice and the last part on the cultural and political practices that have developed on the basis of the global inequality structures outlined above and their historical precedents. The anthology shows that the climate crisis affects all societies, but not all equally. Many countries of the Global South are still suffering the most from the consequences of climate change. As the climate crisis escalates, the historically evolved and persistent structures of global inequality are moving to the centre of debates and fear of a loss of status and prosperity is spreading, especially in the affluent, industrialised societies of the Global North. This is accompanied by a strengthening of the radical right which is putting democratic societies and global climate protection to the test.

Keywords: climate crisis, climate justice, global inequality, social cohesion, social polarisation

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The global climate crisis is the greatest challenge of our time. Although the causes and consequences have been known for decades, societies have delayed, slowed down and prevented the necessary changes and adaptations to save the climate for half a century. The goal of continuously limiting global warming to 1.5 degrees Celsius and preventing further destabilisation of the global climate system is hardly achievable. 2023, when most of the contributions to this anthology were written, was the warmest year on record. Temperatures averaged 1.48 degrees Celsius above pre-industrial levels (Copernicus, 2023). According to the EU climate service, Copernicus, 2024 not only started with new heat record data again. From February 2023 to January 2024, global warming was consistently above the set target for the first time at 1.52 degrees Celsius (Copernicus, 2024). Concrete countermeasures must now be even more drastic and, as such, harbour an extraordinarily high potential for social and political conflicts at global, national, and inter-group levels. The aggravation of global inequalities increasingly challenges the *cohesion between and within societies*. The causes of climate change or the mass release of greenhouse gases go back further than is often reflected in industrially affluent societies. Enslavement and colonialism have played an important role in industrialisation and the growth of overall wealth. The costs, risks, and responsibilities of wealth production for the "Global North" have been and continue to be outsourced at the expense of the "Global South". Both the people and the environment there have long been suffering from the dire consequences of historically evolved inequality, climate change, and the destruction of the world's natural resources (Brand & Wissen, 2017; Coventry & Okereke, 2018). Patterns of economic exploitation and marginalisation also shape responsibilities and vulnerability towards the climate crisis within societies both in the Global South and North. The climate crisis forces humanity to confront the consequences of fossil wealth production in a way that is regionally and globally different but nevertheless inescapable. It challenges the status quo of resource and power distribution orders. The situation increases the risk of far-reaching individual and collective insecurities and of growing social polarisation. Western industrialised nations of the Global North are increasingly seeking relief strategies to defend responsibility, consumption levels, and living conditions. Simultaneously, many societies of the "Global South" and marginalised and exploited groups worldwide are fighting against structural dependency, for equal (wealth) participation, for the preservation of resources and livelihoods, and for their survival.

The task of relating to the concept of social cohesion under which our project, among many others, is located, is a difficult one in view of the diverse global perspectives in this volume. Social cohesion has increasingly become a frequently used term, both in democratic and authoritarian societies (Middell, 2024a). Given the vast differences in conceptions of cohesion within (Forst, 2020) and,

even more so, between societies (Middell, 2024b), appeals to "global cohesion" regarding the climate crisis carry the risk of making the term an empty phrase or merely to provide further evidence of ignorance of historically privileged perspectives. Paradoxically, such appeals to "cohesion" in the global sphere often still ignore past and present imbalances and speak to a rhetoric of oversimplifying "universalism", for example, when so-called "developing countries" are expected to contribute to climate goals and "do their part". For too long, as climate justice activists and politicians from countries most affected by climate change argue, the activities of the affluent societies of the "Global North"—in their relation to the "Global South"—have been fundamentally contradicting major principles commonly associated with social cohesion: mutual belonging, responsibility, and the focus on the "common good". However, the dominance of the "Western" perspective is contested by other perspectives that tackle the goals of unity, integration, and social equalities very differently (Middell, 2024b). It is one of the central dilemmas of global climate policy that historically evolved unequal representation stand in the way of global cooperation while such cooperation remains the only way forward. While there seems to be no framework that could realistically capture all the conflicting interests and contradictions inherent to terms like "global cohesion" thus far, the global crisis directly impacts conceptions of cohesion within different societies, though again in very different ways. To enable effective forms of cooperation that are necessary under the high pressure to act, cohesion must first be understood in the sense of a minimum consensus. Following Forst (2020, p. 44), cohesion should be understood as a mechanism of integration that recognises plurality and differentiation and strives for forms of cooperation that consciously include conflict. The previously employed logic of integration involved a crisis-induced compulsion to cooperate with the aim of securing one's own existence and the status quo, which has contributed to the delay in crisis management and also created new areas of tension. This volume analyses these tensions, their underlying conflicts and the mutual dependencies between them, which together have contributed to the obstruction of climate protection for decades.

The contributions of this interdisciplinary anthology cover a broad thematic range. Despite the diversity of perspectives, the critical relationship between inequality and the climate crisis, with their different impacts and reaction patterns, connects the different contributions throughout the book. These inequalities have contributed to an exacerbation of the already poor, social, economic, and political living conditions among those most affected by the climate crisis. At the same time, they have led to defensive reactions like repression, justification, and denial in societies that have so far been benefitting from global inequalities. The desire to shield oneself from responsibility and the threat of loss of privileges make

far-right interpretations more attractive. As a result, a growing number of parties from the far right have achieved electoral success by rejecting demands of equality and defending the status quo of fossil wealth in affluent industrialised societies. As for authoritarian and nationalist positions, they pretend to resolve conflicts through a return to the status quo by way of exclusionary cohesion. The strategy of denial of scientific knowledge and the delegitimisation of measures for climate protection and climate justice applied by the far right is by no means new. In the past right-wing conservatives and market radicals had joined forces by the goal of defending privileges and the status quo and the advocacy or legitimisation of inequality. Within a broad network of think tanks, politicians, fossil fuel companies, and lobbying organisations, they have launched and supported disinformation campaigns against climate protection measures which have prevented or impeded effective climate protection. For more than half a century, the public has known the central findings about human-made climate change and basic solution strategies for dealing with the climate crisis. Since then, decades have passed in which global emissions have reached ever new record levels, but climate protection policies have hardly been implemented.

The geographical composition of the contributions brings together perspectives from the Global South and North, from so-called developing countries, emerging economies and traditional industrialised societies. Although the perspectives from the Global South are underrepresented in the volume, partly due to some late-notice cancellations, the contributions highlight some central conflict constellations and their effects on social, economic and political living conditions, which, despite many differences, can stand for the structural conflicts that are of general relevance, not only to these countries. This international anthology focuses on structures, discourses, and dynamics that have prevented and delayed, or even reversed, necessary transformation steps in global climate protection to this day. The focus on mechanisms and structures of climate obstruction can nevertheless contribute to a reflection towards more sustainable and universal means of global integration, which will be urgently needed in view of the global accumulation of crises, at the centre of which is the global climate crisis.

1. Part One: Structures and Mechanisms of Global Inequality and Climate (In-)Justice

Numerous approaches have described the system of global inequality, its interdependencies, and backgrounds to date. The question of how far different processes

can be traced back remains an ongoing discussion. However, the temporal coincidence of the fossil-fuelled rise in prosperity of Western industrial societies, the rapid increase in global inequalities within the past two centuries (Bourguignon, 2013, p. 8) and the systematic exploitation of the natural and social environment is undoubtedly closely linked to the rise of modern capitalism (Lessenich, 2018). These processes build on historically evolved power asymmetries in global society, whose origins in turn extend beyond the beginnings of industrialisation to the colonial exploitation of the Americas, Africa, and Asia (Wallerstein, 2004; Acosta, 2013; Bhambra & Newell, 2023). Many terms have been coined to describe the interplay of these historical structures and the dynamic development of the spatial, economic, and geopolitical aspects of the global sphere. In fact, looking back over the centuries fundamentally challenges any attempt to conceptualise and define the highly fluid, dynamic, and multipolar global power structures.

1.1 Conceptual Approaches Towards Global Inequality

In the mid twentieth century, scholars started to describe the historical interdependencies over the past 600 years on a global scale within the framework known as *world system analysis* (Prebisch, 1950; Wallerstein, 1974; Hopkins & Wallerstein, 1986). From this perspective, the unequal relationships in global society are historically evolved formations of capitalist and geopolitical—in part violent and military—expansion processes that have systematically linked historically evolved *core-centres* with new spaces. This has led to a global asymmetry of power consisting of industrialised societies with highly developed processing industries and high demand for raw materials and labour (*core*) on the one hand. In contrast, the *peripheries* are characterised by economically less developed regions with a high abundance of raw materials (*paradox of the plenty*) and cheap labour on the other. In the *semi-peripheral* "buffer zone" between core and periphery, such regions are localised in order to guarantee the core's access to resources, often by use of authoritarian means, contributing to the exploitation of the periphery at the same time (Wallerstein, 1974; 2004). Inspired by the work of Gramsci (1995) and Prebisch, the term *Global South and Global North* has emerged as a way to describe the unequal territorial relationships with regard to the economic, social, and political power structures. In this book, we mainly refer to these two terms, despite obvious geographical ambiguities, due to their mutual usage in both hemispheres and their integrative function considering the different spatial, historical, metapolitical, and socio-economic perspectives in a broader understanding.

Many authors have analysed the field of tension between capitalism, inequality, and the ecological crisis from different perspectives and disciplines and with very different conclusions. Within the long and diverse economic tradition, inequality has been described in part as an obstacle to growth and stability and as a governance problem (cf. e.g. Eißel, 2012). Others have argued that economic globalisation will overcome inequality in the long run (e.g. Stolper & Samuelson, 1941; Birdsall, 1998; Rodrik, 1997). Frequently, but especially in its (right-wing) libertarian and neoliberal manifestations (which almost always originated from the core-societies), inequality was and is seen as a "necessary evil" or even as a prerequisite for growth and development (cf. e.g. Eißel, 2012). However, in view of the numerous ecological and economic capitalist crises of the past, more critical perspectives increased in this field: excessive inequality, a lack of collective participation in global growth and the ecological costs are often regarded as forms of market failures (e.g. Stern, 2007, regarding climate change). A lack of information and innovation incentives, incorrect pricing, the tendency to externalize internal costs (Grantham Research Institute, 2012) as well as governance failures and poor institutional quality and control are frequently cited arguments (cf. van der Ploeg & Poelhekke in Beckert et al., 2021, pp. 438–439). Many of these approaches have rightly been criticised for being blind to the historically grown inequalities underlying global relationships. Other scholars have taken a much more critical look at the role of capitalist accumulation in the context of inequality (e.g. Piketty, 2014). A central assumption of concepts such as the *externalisation society* (Lessenich, 2018), the "*spatial fix*" (Harvey, 2021), current concepts of *land grabbing* (Dörre, 2019) or of the *commodity frontiers* (e.g. Moore, 2017; Rasmussen & Lund, 2017) states that global capitalist accumulation cannot sustain itself on its own. Areas where new spaces and resources (e.g. labour, land, money, natural resources, energy, but also social and intellectual resources) can continuously and profitably be accessed, are necessary to achieve permanent growth. Capitalism therefore constantly produces new crises, inequalities and ecological damage of its own accord. These intensify into existential crises when the scope for new access is restricted under the conditions of (materially) limited resource availability. Such debates on the origins and underlying mechanisms of ecological and social crises are of decisive importance as they shape decision-making and legitimisation practices regarding, for example, the climate crisis.

1.2 Externalisation and Extractivism

Within these debates, the interrelated mechanisms of *externalisation* and *extractivism* are of particular interest for the purpose of this anthology. They determine

the living conditions as well as the possibilities and limits of the everyday actions of individuals and collectives on "both sides of the globe", albeit in highly contradictory ways, and they serve as mechanisms that link both spheres structurally. "In advanced modernity, the social production of wealth is systematically accompanied by the social production of risks", wrote the German sociologist Ulrich Beck in the 1980s during a time of serious environmental pollution, forest dieback, debate about environmental toxins and, above all, nuclear threats (Beck, 1986, p. 25). In his analysis, the exponential growth of productive forces in industrialised countries is accompanied by "risks and self-threatening potentials on a hitherto unknown scale" (ibid.). Prosperity necessarily produces suppressed "secondary risks" (German: "Nebenfolgengefährdungen") to the "sources of wealth" (ibid., p. 27) and thus forces a process of reflection on the self-generated risks that threaten the industrialised societies in their continued existence. These risks form the starting point for Lessenich's reflections on the "*externalisation society*" (Lessenich, 2018). On a structural level, externalisation means an "asymmetry of power in world society", which reproduces itself as a "multidimensional, globalised mechanism of exploitation" (ibid., p. 51) and, in its all-encompassing presence, structures the everyday practices of people and social groups in externalisation societies, while remaining largely hidden (or willingly unseen) in their everyday lifestyles (ibid., p. 60). The prosperity risks associated with this externalisation habitus, for example, social impoverishment, environmental damage, diseases, mobility restrictions, and many more, are systematically outsourced to the sphere of the global periphery.

If *externalisation,* on the one hand, can be conceptualised as an outsourcing mechanism for the costs and risks of the production and consumption conditions among rich industrialised societies, *extractivism,* on the other hand, can be understood as a corresponding process providing mechanisms and infrastructures for the exploitation of resources from regions mostly placed in the Global South. Extractivism can be described as a process that "involves gathering natural resources and primary goods, typically through activities like mining, logging and drilling, and then selling them in global markets" (Bhatasara & Nyamwanza, p. 3, in this volume). The devastating ecological deterioration and the impoverishment, displacement and pauperisation of rural communities and indigenous populations that follow extractivist processes are impressively described in the chapters on Chile and Zimbabwe (cf. Bhatasara & Nyamwanza and Graf et al. in this volume). In the centuries-old history of extractivism, it has appeared in various forms (c.f. Bhatasara & Nyamwanza), while remaining a central mechanism of global exploitation still today, for example under the auspices of the enormous demand for resources in the context of the green transformation. The new *lithium frontier* is expanding as Bhatasara and Nyamwanza outline in their contribution. While

this can facilitate clean energy and mobility and new green job opportunities, it also perpetuates existing inequalities and mechanisms of unequal exploitation at the costs of the local communities (ibid.). Following Beck's and Lessenich's work, amongst others, the climate crisis can be interpreted as a process of a time-delayed internalisation of historical and current externalisation practices mostly in favour of the wealthy industrialised societies and at the expense of the physical environment and the population of the Global South. The "return" of the risks of prosperity therefore puts the externalisation societies under strong internal pressure and leads to defensive reactions of denial, delay, and compartmentalisation. This in turn threatens social and democratic cohesion, as well as the little progress achieved so far in slowing down the climate crisis (c.f. Part Three).

1.3 Inequality, Injustice, Marginalisation and Climate Crisis

Inequality between and within societies is therefore also linked to aspects of cohesion threats within societies. A look at the data on measures of global inequality reveals ambivalent findings and a paradoxical situation (Bude & Staab, 2017, p. 10). After almost two centuries of continuous increases in interstate inequality between Western industrial core-societies and the global periphery, a visible trend reversal has taken place in recent decades, while inequality within societies has increased significantly (Bude & Staab, 2017; Bourguignon, 2013; Chancel et al., 2021). The decrease in global inequality between states must therefore be viewed critically because only a very small proportion of the population benefits from economic growth within these societies. Furthermore, it is largely fuelled by an increase in private wealth at the expense of the public sector (Chancel et al., 2021). On the global scale, the gap between the richest and poorest has widened drastically since the beginning of this decade alone. The wealth of the five richest billionaires has doubled within this period, whereas five billion people have become poorer (Riddell, 2024).

Global inequality and the climate crisis are closely interrelated. At least three dimensions—the inequality in responsibility, the inequality in capacities to mitigate and adapt to the crisis, and the inequality of crisis impacts—characterise the relationship in territorial, economic, and social terms. Between countries, the unequal relations regarding the climate crisis are determined by the unequal distribution of responsibility, crisis impacts and resources for adaptation and mitigation (Kotz et al., 2024, p. 555). The dilemma of climate injustice can also be vividly illustrated in the global comparison between individuals with a few figures from the data analyses and projections of the Climate Inequality Report 2023 (Chancel et al., 2023): the richest ten percent of global humanity are responsible for around

half of global CO_2 emissions, while the bottom 50 percent are responsible for 12 percent. This disproportion is also reflected in the ratio of countries' historical emissions (1990–2018), whereby the overwhelming responsibility of the so-called developed countries in terms of emissions per capita has not been fundamentally challenged, even in the light of the rapid increase in emissions in China and other so-called threshold or developing countries (Stoddart et al., 2021). The impact costs of the climate crisis are distributed in exactly the opposite direction. The projections by Chancel et al. (2023) estimate that the top 10 percent of emitters would only have to face about 3 percent of the global consequences of climate change—while the bottom 50 percent would have to bear a full three-quarters (75 percent). Representatives of the *theory of unequal ecological exchange* (e.g. Hornborg, 1998; Rice, 2007), have explained the divergence of responsibility and concern in the context of the ecological crisis with unequal access of societies to '*environmental space*' depending on the positions in the hierarchy of the world system as described above. In turn, access to assets and thus the scope for effective savings and adjustments are distributed in opposite directions to climate concerns. Around three quarters (76 percent) of these financial capacities assets are owned by the top 10 percent, with only around 2 percent remaining for the bottom 50 percent of the population (Cancel et al., 2023). This is the core of the *climate injustice dilemma*, which occurs at the level of the world's population and which contributes significantly to the delay in global climate protection. Those who contribute the most to the global crisis, as beneficiaries, also have the most mitigation and adaptation resources at their disposal, but feel the least pressure to act as they are exposed to the consequences of the crisis to a disproportionately lesser extent. Beside the territorial and individual levels, important aspects of climate injustice occur at the level of social groups. In addition to the economic forms of exclusion, systematic marginalisation of disadvantaged groups occurs especially through the exclusion of social groups by gender and ethnicity. Black and indigenous population groups in particular suffer the most from the effects of climate change, although their contribution to this is already negligible because the historical and still persistent inequality conditions force many to live below the poverty line (e.g. Dunlap & Brulle, 2015; Quent et al., 2022; Stoddart et al., 2021).

As Graf et al. show in this volume, in Chile's case, the structure that causes the coincidence of high environmental pollution, economic disadvantage, and ethnicity, as well as the mechanisms of their legitimisation, can be described as *environmental racism* (e.g. Bullard, 1994), and in the broader context of the global climate crisis as *climate racism* (e.g. Eversberg, 2022; Quent et al., 2022). Environmental racism refers to the systemic discrimination and disproportionate exposure of marginalised communities—especially of Black people, people of colour and indigenous people—to environmental hazards, pollution, and ecolog-

ically degraded environments both locally and globally (Bullard, 2002, pp. 34 f.). Environmental racism is deeply intertwined with the history of colonialism and is disproportionately affecting communities in the Global South. The historical exploitation of land and resources by colonial powers has shaped patterns of environmental degradation around the globe, for example, through the expropriation and degradation of indigenous land (Domínguez & Luoma, 2020; Waldron, 2021). Today, colonial traces show up in exploitative and unequal trading patterns. Multinational corporations and extractivist industries often take advantage of global trading laws and lax environmental regulations permitting environmental degradation in the Global South, perpetuating a cycle of environmental injustice (Chagnon et al., 2022). These injustices are reflected on national levels. Environmental Justice (EJ) scholars such as Bullard (1993) have done extensive research on this subject for the US-American context. Landherr et al. (this volume) show that social exclusion and ecological destruction through extractivist industries in Chile especially target the mode of living of the indigenous Mapuche. Environmental racism thus reflects local disparities as well as global power dynamics rooted in historical injustices and ongoing economic exploitation.

Environmental justice can be regarded as a countermovement to the injustices created by environmental racism. However, the struggle of EJ activists to reduce or abolish such inequalities is often the target of actors trying to maintain the unequal and unjust *status quo* in environmental decision-making. This perpetuation of environmental racism carried out through strategies including continued economic exploitation as well as political decision-making and criminalisation, direct physical violence or even the murder of EJ activists (Scheidel et al., 2020).

2. Part Two: Climate and Environmental Justice

The term *environmental justice* (EJ) stems from movements originating from impoverished Afro-American neighbourhoods in the United States of America (USA). These movements emerged in opposition to the siting of waste dumps and industrial sites harming health and the environment in structurally disadvantaged regions in the 1980s (Schlosberg & Collins, 2014, p. 360; see also Landherr et al., this volume). Demands for EJ went beyond the so-called "Not In My Backyard" (NIMBY) activism, which refers to the opposition or resistance, often by local actors, to the development of projects perceived as undesirable, such as waste disposal sites, power plants, or industrial facilities, in their immediate surroundings (Temper, 2017, p. 499). Instead, EJ activists in the US and in other regions of the world often advocate for a systemic transformation of the overarching system which produces environmental hazards and pollution as well as regional

and global inequalities. The activists criticise environmental degradation and inequality as inevitable consequences of a system based on structural discrimination and exploitation of human labour and ecological processes (Temper, 2017, pp. 496–499). In doing so, they link environmental issues with concerns for social justice (Schlosberg & Collins, 2014, p. 361).

Since the 1980s, EJ activism and scholarship have expanded in terms of scale and scope. The literature on EJ is now concerned with various regions and environmental issues across the globe (for an overview, see Holifield et al., 2018; Atapattu et al., 2021). Since the climate crisis is one of the most pressing global environmental issues, EJ scholarship is increasingly incorporating topics related to climate change. This merges with activism and research especially from the Global South which focuses on the inequalities created by global capitalism and colonialism (Routledge, 2011). For example, Atapattu and Simonelli (2021) focus on the devastating impact of rising sea levels on small island states and its justice implications.

However, the tensions between frameworks surrounding climate and environmental matters also exist. For example, mainstream climate policies are sometimes based in market-based approaches which lack awareness for the interests of local communities who live in and depend upon their direct ecological environment, especially in the Global South (see Losekann in this volume in regard to Brazil). Furthermore, authoritarian governments might use the shift towards renewable energy in ways that continue exploiting natural resources while also increasing regional inequality (see Özen in this volume in regard to Turkey). The concept of climate justice is a proposal for bridging the gap between social and climate concerns. Climate justice scholars point out three essential dimensions of justice which reflect approaches from EJ literature (Holifield et al., 2018, p. 4): distributive, procedural, and recognitional justice. These dimensions provide a comprehensive framework for understanding justice in the context of the climate crisis (see also Skillington in this volume).

Concerns for distributive justice illuminate the stark inequalities regarding both the causes and effects of climate change. They refer to the above-mentioned climate inequality dilemma and the mechanisms and structures contributing to the unequal distributions of risks and benefits. This imbalance exists within countries as well, where wealthier individuals contribute more to greenhouse gas emissions, whereas less affluent people are more vulnerable to effects of climate change, such as natural disasters (Coventry & Okereke, 2018, pp. 366 f.).

Matters of procedural justice address the question of decision-making authority in the face of the climate crisis. Historically, those groups most affected by climate change have had limited influence in shaping international negotiations and actions taken regarding the climate crisis (Skillington in this volume). For

example, climate finance programmes often place decision-making power with actors contributing financially, side lining the views of those directly impacted (Newell et al., 2021, p. 5). Procedural justice calls for giving the groups most affected by the climate crisis a significant role in the decision-making processes. Recognitional justice underscores the imperative of acknowledging inequalities, differences, and marginalisation when addressing the climate crisis. Decisions related to the adaptation and mitigation of climate change must encompass the interests and needs of those most affected.

Viewed from a climate justice perspective, resistance to meaningful climate action can be regarded as a strategy of obstruction to the implementation of climate justice. By refusing to act in line with the needs of those most affected by the climate crisis, different actors try to maintain privileges within unequal power systems regarding both procedures and resource distribution concerning climate politics. Therefore, the struggle for climate justice is inherently tied to dismantling obstructive forces, fostering democratic participation, and promoting democratic cohesion in the face of the climate crisis.

3. Part Three: Cultural and Political Responses to the Climate Crisis and Climate Inequality

According to one of the largest representative global surveys around 86 percent of people in 125 countries around the world believe that something needs to be done about global warming, 89 percent of those people call for more climate protection measures by their governments and 69 percent would be willing to contribute 1 percent of their income to climate protection (Andre et al., 2024). In view of such findings, the question arises as to why, despite such a comprehensive mandate for global climate protection, much more substantial progress has not yet been achieved. This question is necessary and justified, but it ignores the complex and conflictual dynamics and interrelationships between actors and institutions, their motives, functional logics, and levels of interaction (individuals, groups, countries, and global world relations). In this complex interplay, all these dynamics have contributed to a "social inertia" (Brulle & Nooregard, 2019), which has delayed urgently needed climate protection measures to a point where the windows of opportunity for action appear to be closing at an ever-increasing pace.

While the first part of the introduction and the book is mainly dedicated to the structures and mechanisms of global inequality and the realities of the climate crisis in some countries of the Global South, the second part focuses on the

cultural and political practices in the "climate conflict field" (Reusswig & Küpper, 2021) that have developed because of the global inequality structures outlined above and their historical precedents. The focus here is primarily on those practices, actors, networks and institutions that have deliberately, purposefully, and strategically slowed, blocked or delayed climate protection efforts. Numerous terms, such as climate change denial, climate scepticism, and different concepts have been developed within academic research to describe, differentiate, and relate these phenomena to one another. Climate change denial encompasses attitudes that deny the scientific knowledge about global warming and its human causes (Almiron, 2020). Climate scepticism, on the other hand, is usually defined more comprehensively as "a fairly consistent family of arguments and pool of individuals that reject, dispute, or question [...] that the global climate is changing primarily due to human activities and that these changes will affect severely both ecosystems and human populations if left unrested" (van Rensburg, 2015, p. 2). Both terms have been taken up and criticised differently in academic research, for example, regarding the lack of selectivity, the tendency towards simplistic dualism, the lack of reference to motivations and intentionality, and the lack of acknowledgement of constructive criticism (cf. Washington & Cook, 2011; van Rensburg, 2015; Almiron, 2020; Ekberg, 2023). Referring to these debates, the umbrella-term "climate obstruction" has been introduced more recently by Ekberg, Forchtner, Hultman and Jylhä (2023) to outline the ways in which effective climate action has been undermined by individuals and collectives. In this volume, Forchtner et al. re-engage with this proposed typology, which covers three distinct but intertwined modes in which climate protection has been obstructed. *Primary obstruction* refers to the denial of anthropogenic climate change, whereas *secondary obstruction* focuses on the opposition to climate action and policies. Finally, *tertiary obstruction* denotes modes of "living in denial" without necessarily obstructing effective climate protection measures intentionally. Against the background of the colonial past and the capitalist present, however, climate protection and the assessment of its obstruction must be differentiated in the global context, as Forchtner et al. emphasise in their contribution. Due to the focus on the organised obstructive movements in the Global North, the debate on climate delay has so far lacked concepts for integrating perspectives from the Global South. The challenge is to take into account both, persistent inequalities in terms of responsibility, impacts and capacity to act, as well as more recent global power shifts and forms of delay in climate action by governments and interest groups in the Global South (Edwards et al., 2023; Losekann in this volume). In addition to the high degree of heterogeneity between societies of both hemispheres, the enormous and growing inequalities in climate destruction within societies (Chancel et al 2023) should therefore be taken into account, as well as the mechanisms of their repro-

duction and legitimation (e.g., by resource extractivism) in relation to the requirements of markets from affluent societies, primarily located in the Global North.

This volume brings together a broad range of perspectives on the ways in which obstruction contributes to delays in climate policy as well as in individual and collective action. The different perspectives range from the historical origin of the US-Climate Denialism and "Culture Wars" (Ashe) to the role of traditional and new social movements and interest groups in the Global South (Losekann), obstructionist effects of denial and non-recognition of marginalised perspectives in global climate negotiations (Skillington), the role of conspiracy ideology, science scepticism, and postmodernist strands of thought (Esteves), and more recent political efforts by party formations of the far-right spectrum (Tarant; de Nadal), and individual and collective responses of the population to transformation pressures and exclusive defence mechanisms (Wildersen; Richter et al.). The levels at which climate obstruction takes effect in its various forms range from individual everyday routines to social group contexts and national governments to the sphere of global climate protection policy.

3.1 Fields of Tension in Global and National Climate Policy

At the end of 2023, the 28th World Climate Summit took place in Dubai. More than 70,000 people and delegations from around 200 countries were expected to attend the largest global climate summit. This time the conference was organised by the United Arab Emirates, one of the countries whose rapid rise in prosperity has been inextricably linked to the extraction of fossil fuels. The COP President at the time, Sultan Ahmed Al Jaber, is the Minister for Industrial and Progressive Technologies and CEO of ADNOC, the world's twelfth-largest oil company. In addition, 2,456 fossil fuel lobby representatives of the coal, oil, and gas industries had also travelled to the conference—a larger number than the delegates of the ten countries most vulnerable to global warming. These conflicts of interest and the unequal distribution of influence on key global decision-making processes illustrate the problem at the heart of current and past global climate policy. After all, one of the central concerns of COP28 was to negotiate the long overdue decision to phase out fossil fuels, in addition to taking stock of the global progress made since the 2015 Paris Agreement. After long rounds of negotiations, the agreement was on a "transition away from fossil fuels in the energy system", which may already be considered a success in view of the highly opposing positions but remained vague and hardly binding in its actual formulation (Könnecke & Adolphsen, 2024).

Within international climate policy, the massive global inequalities are condensing into fundamental conflicts of interest, some of which seem irreconcil-

able. Yet in view of the political pressure to act and the cross-territorial nature of the climate crisis, there has so far been no alternative to this form of global co-operation. The climate injustice dilemma, which comes down to the question of who will suffer its effects most, who is most responsible for the problem, and who is willing and able to address the problem (Robert & Parks, 2007, p. 194), stands at the core of global climate governance. For a long time, the unequal system of representation at the expense of perspectives from the Global South has created space for Western industrialised societies to shape the pace and form of the transition mainly in line with their national economic and geopolitical interests. Many inequality gaps persist but the global climate negotiation formats, such as the World Climate Conference, have at least partially diversified. This is reflected, for example, in an increase in participants of non-governmental organisations, although a strong North-South divide continues to exist here as well (Gereke & Brühl, 2019). At the same time, the rapid rise of the so-called BRICS[1] countries in recent decades has not only changed the relationships in the global geostrategic and economic policy structure, but has also altered global emissions balances and the dynamics of global climate policy (Downie & Williams, 2018). In absolute figures about half of the CO_2 emissions of the last 30 years have been released in so-called developing countries.[2] This increases have often been used to legitimise inaction for climate protection in societies of the global north, whereby the large differences in population sizes have often been concealed (e.g., Quent et al., 2022). In terms of population size (per capita emissions), the average emissions in the so-called developed countries over the last 30 years were still more than four times lower than in wealthy industrial countries (Stoddard et al 2021). According to observers, China, Russia, and Saudi Arabia in particular, together with other OPEC countries (Organisation of the Petroleum Exporting Countries), are said to have blocked the formulation of a consistent fossil fuel phase-out at COP-28 (Götze, 2023; Könnecke & Adolphsen, 2024). Industrially highly developed countries such as China have also used their controversial status as so-called developing countries to relativise their own massive emissions and to strategically close ranks with countries in the Global South (Barnett, 2008; Kopra, 2012). These countries have long been rightly pushing for a process of "just transition" (Newell & Mulvaney, 2013) and effective equalisation mechanisms for the "climate debts" (Martinez-Alier, 2003; Robert & Parks, 2007) of the Global North. A lack of representation from the Global South at the country levels overlaps with representation deficits

1 Brazil, Russia, India, China and South Africa; since 2024 additionally with Egypt, Ethiopia, Iran and the United Arab Emirates, therefore sometimes referred to as "BRICS plus".

2 At least in part, the systematic outsourcing of emission-intensive production processes from highly industrialised countries to the Global South has contributed to this growth (Roberts & Parks, 2007).

of social groups. But with regard to the massive inequality within countries and different ways regimes relate to marginalisation processes, they are not necessarily in line. The demands of people, population groups, and regions that are most vulnerable to climate crisis impacts and most affected by historical forms of systematic disadvantage are systematically underrepresented in global climate negotiations as Tracy Skillington writes in her chapter in this volume. For instance, the ongoing "non-recognition" of indigenous communities, their experiences of hardship, and their knowledge perspectives on the stewardship of nature, can be seen as a form of implicatory denial.

Beside the unequal distribution of participation opportunities, the market-orientated and neoliberal focus of international climate policy has repeatedly been criticised by activists (Gereke & Brühl, 2019; Losekann in this volume) and scholars in the field (e.g. Fieldman, 2011; Urry, 2011; Ciplet et al., 2015; Ciplet & Roberts, 2017; Mirowski, 2013). In her chapter in this volume, Christiana Losekann shows that criticism, delay, and obstruction of climate protection policy in Brazil come from many different sides and are fuelled by different political and economic motivations. In addition to the obvious opposition of radical right-wing groups, in alliance with conspiracy ideologues and economic and political interest groups, to climate protection policies in Brazil, these are also strongly criticised by left-wing political parties and environmental movements. The main object of criticism is the neoliberal orientation of international climate protection policy, its institutions and its consequences for the environment and particularly marginalised population groups. It is therefore of central importance that "environmental and climate issues go hand in hand with concerns about social justice and democracy" (Losekann in this volume).

While many of the global power asymmetries described above continue to shape the field of tension that global climate policy acts upon, the diverse dynamic global processes of change in recent decades have also produced new constellations, development and cooperation opportunities, and new areas of conflict. This does not only apply to global climate policy and the globalising climate protection and climate justice movement, but also to the global capitalist production regime itself. Progress in climate protection has been systematically delayed for decades, especially in the area of industrial and financial policy. What progress there has been was made slowly and under high political and social pressure. But the past decades have also seen substantial successes regarding goals of decarbonisation, for example in the rapidly falling production costs of renewable energy sources (Roser, 2020), the boom in the e-mobility industry (Marzouk, 2023) and the growth of so-called green investments (Zhao et al., 2022).

In addition to new inequalities around technological access and resource provision (Baum et al., 2024; Bhatasara & Nyamwanza, in this volume), climate protection itself has thus tapped into as a new and increasingly lucrative market. In some cases, marketing of climate protection and the obstruction of climate protection go hand in hand, as Jusen Asuka analyses in his chapter on climate protection policies in Japan. Alongside greenwashing tactics, a wide range of technology-based solutions are being promoted, while their benefits for sustainable climate change mitigation are highly debatable and currently more wishful thinking than fact. The discourse and practices Asuka points to speak to broader global phenomena aimed at legitimising a continued practice of burning fossil fuels, as well as continued inaction in the face of the climate crisis. Technical innovation solutions such as Carbon Capture Utilisation and Storage (CCSU, CCS), new generations of mini nuclear fission and fusion reactors, e-fuels or "green hydrogen" projects are examples of technologies that many scientists believe will play a role in achieving net zero emissions targets in the future (IPCC, 2022), but whose risk assessment, development status, scalability for mass application, and economic feasibility are still highly controversial in some cases.[3] The intentional instrumentalisation of climate change, climate protection and the sustainability agenda as a strategic resource or negotiating advantage for contrary political or economic intentions have also been referred to as 'weaponization' of climate change (Vuong et al, 2023). These instrumentalisations differ substantially from the "ideal paradigm of globally coordinated, scientifically founded cooperative action to combat a universal climate threat to humanity" (Vuong et al., 2023, p. 3) and carry the risk of creating new tensions, contradictions and defence mechanisms. In her contribution on the environmental and climate policy of the Turkish government, Özen shows how climate protection and the energy transition can be instrumentalised in authoritarian settings as an important resource of government practices and their legitimation.

3.2 Cultural and Social Conflicts and Mechanisms of Defence in the Global North

If we turn to the perspectives of the "affluent societies", which mainly belong to the societies located in the Global North, the social consequences of the climate

3 For a general overview, see e.g. the IPCC report Mitigation of Climate Change (Shukla et al., 2022). On new forms of nuclear fusion and fission and new reactor types, their risks and costs, e.g. Pistner et al. (2024), on limitations and potential hazards of CCUS, e.g. UBA (2023), as well as on the limitations, costs and lack of global capacities for the use of "green hydrogen" in individual applications, e.g. Odenweller et al. (2022).

crisis have also become increasingly apparent here in recent years. Former mechanisms of "crisis outsourcing" are becoming dysfunctional and the lack of alternatives for far-reaching transformation poses a threat to existing hierarchies in resource and power distribution. This in turn is accompanied by individual and collective fears about loss of status. Above and beyond the economic and material threats, the climate crisis can be seen as a fundamental challenge to the social order, which is why this has been referred to as a "cultural trauma" (Brulle & Noregaard, 2019). This trauma refers to the "systematic disruption of the cultural basis of a social order", ranging from individual everyday routines and ideology to institutional behaviour, and thereby "challenging taken-for-granted ways of interacting" (ibid., p. 887). This also becomes visible with regard to individual and collective legitimisation practices of emerging inequality, and the continued inaction in the face of the climate crisis. The discursive-normative negotiation process about strategies of dealing with the crisis, questions of responsibility, and risk distribution and legitimisation offers a considerable pool of individual and collective reaction patterns regarding the climate crisis. These range from changes in individual everyday routines (e.g. in consumer behaviour), collective organisation (e.g. political protest), forms of compensation (e.g. donations), ignorance, non-recognition, and defence through shifting responsibility and shifting blame, and devaluation and exclusion. These forms of reaction diverge depending on the social and material as well as political and cultural resources and backgrounds of the different social milieus (Eversberg & Holz, 2020).

3.2.1 Structures, Strategies, and Drivers of Organised Climate Obstruction

To understand the scale and scope that the impact of delaying climate policies over the past 50 years has, we need to look back at the emergence of anti-climate change movements that have developed in the wider context of major transformative events and political polarisation processes (Layman et al., 2006; McCright & Dunlap, 2010) since the 1970s in the USA (Conway & Oreskes, 2010; Mayer, 2016; McCright, 2016). In response to the growing importance of progressive social movements in environmental protection and anti-racism, organised social counter-movements have been formed in order to maintain the status quo of political and material power relations (McCright & Dunlap, 2010). While the organised counter-movement against climate protection became visible during this period, the origins of today's "culture war" on climate actually go back much further in the history of the United States, as Teresa Ashe explains in this volume. The historical conflicts over land management and the changing relationship between science and politics have contributed significantly to today's radical defence of climate protection. The emerging counter movements of the 1970s mainly

consisted of alliances of (right-wing) conservative, radical market politicians, individuals, and companies that had joined forces with the aim of influencing public opinion and political decision-making processes in the face of the threat of state regulation (e.g. around environmental and social policy). At the centre of these networks, which have also been described in research as the Climate Change Counter Movement, or CCCM for short (Brulle, 2021a), were numerous, influential conservative and right-wing libertarian (radical market) think tanks (Conway & Oreskes, 2010; Brulle, 2021; Almiron et al., 2023; McCright, 2016). They form the centre of a political movement that worked closely with PR firms, right-wing media formats, front groups and "astroturf" groups. They were supported with millions of dollars from industry, often from large fossil fuel companies and affiliated private foundation constructs (Weber & Stern, 2011; McCright & Dunlap, 2003; Conway & Oreskes, 2010; Dunlap & McCright, 2010; Carmichael et al., 2017; Roberts et al., 2024; Dunlap & Brulle, 2020; Brulle, 2021b).

Since at least the 1970s, the management floors of industry corporations have been increasingly well informed about the fundamental interdependencies and expected consequential damage of fossil fuel production by their own research institutions (Carvey, 1966; Kiel, 2021; Supran et al., 2023). In view of these findings, many of the large corporations opted for a strategy of systematic and targeted concealment. Over the coming decades, targeted disinformation campaigns were initiated, pseudo-scientific methods and paid "experts" were used for publications, hearings and media work, and climate researchers and activists were attacked with smear campaigns and disinformation (Powell, 2011; Dunlap, 2013; Mann, 2021; Conway & Oreskes, 2010; Quent et al, 2022). With the changing dynamics and growing public awareness of climate protection, the strategic arsenal has expanded over the last few decades. Criticism of climate policy measures (Coan et al., 2021), but above all of protagonists of climate research and climate activism itself have since become more of a target (Ekberg et al., 2023; Quent et al., 2022). In addition, with the rapid growth in the importance of social media, the movement's channels and reach have expanded considerably over the past decade (Küpper et al., 2022, Matlach & Janulewicz, 2021; Richter et al., 2022; de Nadal in this volume). Beside the political (right-wing) conservative, mainly right-wing libertarian and radical market actors and collectives contributed to these climate contrarian networks (Mayer, 2016; McCright & Dunlap, 2010; Mann, 2021; Quent et al. 2022). From this ideological point of view, climate protection has been interpreted as a threat to individual and entrepreneurial freedoms (Mann, 2021), and to economic development and prosperity, whilst also a cover for state "regulatory rage" (Quent et al. 2022). Studies have shown that supporters of a free-market economy expressed more sceptical or negative attitudes towards

scientific findings on climate change (Heath & Gifford, 2006; Lewandowsky, 2013a; Lewandowsky et al., 2013b).

3.2.2 The Fight Against Climate Protection from the Far Right

While the academic focus has long been on the actor networks described above, the radical right has established itself as a relevant actor with growing political power in the field of organised climate obstruction in parallel to its electoral rise. In addition to major differences between right-libertarian, neoliberal and radical right-wing political positions, there are also overlaps in terms of content. This is particularly true regarding the rejection of climate protection and social policy. This applies, for example, to demands for tax cuts, deregulation, the rejection of egalitarianism and the acceptance or advocacy of inequality as a central principle of social order and development (Slobodian, 2021; Phlewe, 2021). In fact, it is these interfaces that form the essential programmatic basis of current successful right-wing-populist parties and protagonists, such as Jair Bolsonaro, Donald Trump, and Javir Milei. In addition to the right-wing culture war, these policies are interlinked above all by the simultaneity of social populist and radical free-market positions in social, economic, and environmental policy. The extensively documented negative consequences of Trump and Bolsonaro's environmental and climate protection policies set them among the most prominent examples of climate-regressive policies from the (far) right (Ekberg et al., 2023; Quent et al., 2022). However, they are by no means isolated cases. Many parties on the populist and radical right have developed obstructionist climate stances over past decades (Ekberg et al., 2023, p. 6). A study of 31 OECD countries from the period 2007 to 2018 has shown that right-wing populist parties in government with direct responsibility or indirectly via legislative influence have a significantly contributed to negative effects on national climate policies (Lockwood & Lockwood, 2022). The anti-climate policy of the radical right is often linked to appropriate attitudes within parts of the population. Research has shown that right-wing conservative, authoritarian, populist, nationalist, migration-sceptical, anti-feminist as well as right-wing populist and right-wing extremist attitudes significantly coincide with critical attitudes to scientific consensus on climate change and climate policy (for references see Richter et al.in this volume). Richter et al. show in their contribution that these cultural and political attitudes have the highest impacts on the way people relate to climate crisis and climate policy in Germany. Wildersen also investigates the individual and collective defence mechanisms against climate discourses using interviews conducted in a small town in southern Norway. Paradoxically, the climate protection sceptics see themselves as 'marginalised truthtellers' in opposition to a moralised society from which they

increasingly feel excluded. She argues that these counter narratives are often associated with the defence of responsibility, the defence of privileges, as well as right-wing populist narratives.

The localisation of far-right actors in the field of climate conflict is furthermore complicated by their ambivalence towards environmental and climate issues. In (far-right) movements, the advocacy of environmental and nature conservation is a commonly shared issue (Forchtner, 2020), although climate protection efforts are often rejected at the same time. What appears paradoxical at first glance is, however, deeply rooted in their historically evolved ideological framing of the connection between nature, space, and culture (Hanson, 2022; Ekberg et al., 2023). Historically central to right-wing environmentalism is a folkish-nationalistic understanding of nature and the naturalisation of societies derived from it. In this biologism, people are assigned to supposedly natural and unchangeable positions, which provides a starting point as well as legitimisation for ideas of inequality. In the tradition of the "blood and soil-ideology", the constructed inseparability of humans and nature is now interpreted as a connection between "people and space". In the past, the close connection between identitarian belonging and space has always justified the material and immaterial subjugation and exploitation of the territorially "outside" for the purpose of preserving and expanding the space of national belonging. In terms of the strict separation of the inner and outer worlds, the ambivalent positions can be seen as a form of territorial reframing (Hanson, 2022), whereby measure to correspond to the ecological crisis is staged internally as environmental protection and defended externally as a global elite project. Right-wing actors instrumentalise individual and collective fears of loss of status, as well as cultural and locational nationalist identity constructions in the environmental and climate debate. In so doing they negate universalist solidarity. The tendency to mobilise fears of loss in the context of climate transformation, as well as the tendency to culturalised social and ecological crisis dynamics, for example in the case of a culture war, is becoming increasingly evident globally (Ekberg et al., 2023; Quent et al., 2022). This is highlighted in the two contributions from Czech Republic and Spain (cf. Tarant; de Nadal). Focusing on the "Alternative Influence Network" surrounding Spain's right-wing populist party, "Vox", de Nadal shows the ambivalent stances between environmental protection and climate policy rejection. The rejection of climate policy measures is fuelled by feelings of resentment and anti-establishment anger, which in turn contribute to a culture war within the climate conflict. By focusing on "post-denialism" and new play-out channels they seek to reach out to a broader and younger audience. The difference between localist environmentalism at the national level and the refusal to acknowledge their global embeddings are also at the centre of Tarant's analyses of the strategies for environmental and climate protection of far-right

parties in the Czech Republic. The "far-right localism" of these parties pretends to offer solutions for environmental problems at the national level, whilst simultaneously mobilising against any form of international climate policy by means of a populist, prosperity-chauvinist and conspiracy-based ideological agenda. This relates to a broader global phenomenon around the defence of privileges such as growth, prosperity and consumption for parts of the population as based on the traditional fossil production and consumption regimes that are increasingly being called into question in the wake of the climate crisis. Despite the intersections with traditional climate contrarian movements outlined above, the reaction patterns and defence mechanisms of the radical right can be interpreted as part of a broader countermovement against a growing confrontation with the negative side effects of wealth production in the West (e.g. through social movements and "impact science"; McCright & Dunlap, 2010).

Drawing on concepts of reflexive modernity (cf. Beck's "risk society" in Part One), McCright and Dunlap argue that these political formations can be understood as an "anti-reflexive" countermove in defence of the industrial, capitalist order (ibid., pp. 101 f.). As incompatible as these promises of the radical right appear in the light of the climate crisis, their ideological counterproposal appears even more attractive as feelings of social insecurity increases. The (unfulfilled) promise that capitalist industrial society would enable prosperity for all serves as a nostalgic point of reference and propagandistic formula. The suggestion of an idealised social status quo conceals the exploitation of natural resources and human life on which it was able to develop through a systematic exclusion of the "outside". Deutsch (1990) and Opotow and Weiss (2002), among others, have described the mode of justifying inequality as a mechanism of excluding individuals and collectives from the moral scope of the "we-groups". It allows adherence to the moral values of the "we-group" and the simultaneous exclusion of those who are considered "outsiders". Moral exclusion provides the basis for feelings of hatred and hostility between groups to develop and intensify. By referring to Beck's and Lessenich's thoughts again (cf. Part One), the legitimisation of the externalising risks at the structural level is justified in the normative sphere through the exclusion of the affected subjects from the moral scope of the in-group. This moral externalisation takes place most obviously in the radical right—but not only here, as shown, for example, by the increasingly repressive isolationist policies impacting migrants that are imposed by various European and US governments. Additionally, the simultaneity of global crisis phenomena and the complexity of their treatment by social institutions, seems to give space to radical right-wing parties.

The climate crisis is and has been an ecological, social, and political crisis. The increased societal demand for relief strategies, defence against responsibility and preservation of the status quo is coming up against a political performance

and governance crisis that could escalate into a crisis of legitimacy for democracy itself. This governance crisis is further exacerbated by the inequality structures described above, which have also been characterised by a growing shift of public assets[4] into the private sphere over the past decades (Chancel et al., 2021). In many rich countries, the share of assets held by public institutions minus debt is close to zero, which massively restricts the financial manoeuvring room in the face of ever-increasing crisis-related costs and ecological transformation (ibid.). The limited opportunities for national governments to develop effective strategies to counteract climate change coupled with a transformation policy that is perceived as inefficient are widening the gap between expected and perceived capacity and responsiveness. At the same time, uncertainty, worries about the future, fear of losing status, and existential threats are increasing within the population. This expands the scope for attempts to delegitimise democracy as a whole and feeds the core populist narrative that political elites are letting "the people" down. While social and political conflicts in the face of climate change and the ongoing transformation of societies unfold, demands to maintain and secure social cohesion will spread in the upcoming years and decades. Given the circumstances which we have discussed above, it is rather easy to predict ambivalent and paradoxical outcomes. It is highly likely that existing inequalities, conflicts and social pressure will increase in the wake of the alarming consequences of the climate crisis and growing transformation costs. At the same time, the expected growth in electoral and political relevance of radical right-wing parties in particular poses enormous challenges for global climate protection and democratic cohesion. Nevertheless, this should not obscure the progress that has already been made and the emergence of new windows of opportunity, for global cooperation and more ambitious climate protection measures. An effective and globally just climate transformation is theoretically possible (Chancel et al. 2023) and numerous examples around the world show that it can also be implemented in practice. In particular, the growing pressure from civil society, which has successfully created an increasing need for public, legal and political action, shows that progress can be made even in the face of social inertia and resistance. It is precisely these developments that need to be strengthened in view of the worsening global climate crisis.

4 All assets owned by governments (financial and non-financial), net of debts.

4. On the Contributions to this Volume

This anthology comprises a total of thirteen contributions. Beside the introduction the two conceptual chapters at the beginning provide theoretical starting points, followed by eleven country perspective from around the globe.

In her chapter **Confronting Denial in Mainstream Climate Change Policy Discourse**, *Tracey Skillington* discusses the concept of climate justice with regard to communities, social groups and regions being hardest hit by climate impacts, while being excluded from global climate negotiations by marginalisation and non-recognition. She examines how a new relational model of climate justice can be introduced to address such epistemic injustice and bring about greater equity in the distribution of climate related burdens and responsibilities.

Bernhard Forchtner, Martin Hultman, and *Kirsti M. Jylhä* propose three different types of climate obstruction in their chapter **Still Heating: Unfolding a Typology of Climate Obstruction**. They identify the spread of disinformation and the denial of man-made climate change (primary obstruction), the opposition to climate protection policies (secondary obstruction), and modes of "living in denial" (tertiary obstruction), that add to the obstruction of effective measures against climate change. In doing so they offer a comprehensive framework which contributes to the explanation why effective countermeasures against the climate crisis have been delayed and obstructed for decades.

The Chapter **Extractivism and Climate Justice in a Context of Political Contestation in Zimbabwe** by *Sandra Bhatasara* and *Admire M. Nyamwanza* focuses on the effects the different forms of resource extractivism. Mining and energy are at the core of extractivism in Zimbabwe, leaving the country stuck in the fossil energy age. The country has made commitments to a low carbon development strategy and its new lithium frontier is expanding. This can facilitate clean energy and mobility transition whilst also creating green job opportunities. But the authors illustrate that green jobs and green energy have so far been an illusion in Zimbabwe. Through case studies they look at violent extractivism and extractivist banditry in both old and new mineral frontiers, showing how a political rhetoric on a green transition is playing out and how climate justice remains a mere illusion for local communities.

In their contribution **Environmental Racism in Colonial Continuity: Extractivism, Socioecological Crisis and the Mapuche Struggle in Southern Chile** *Anna Landherr, Cristian Alister, Jakob Graf, Dasten Julian,* and *Johanna Sittel* show that the expansion of extractivist industries leads to considerable ecological destruction and social exclusion in the central south of Chile. They illustrate the consequences of indigenous territory being revalued for its potential of resource extraction and the production of non-conventional renewable energies, which has led to the de-

ployment of numerous hydroelectric, wind, and photovoltaic projects opening up new fields of conflict. The authors demonstrate why this primarily effects the indigenous Mapuche and how this can be understood as "environmental racism in colonial continuity".

Cristiana Losekann analyses different forms of **Obstruction, Denialism, and Criticism of Climate Change in Brazil.** She explains how different forces create tensions in the debate about climate change in Brazil today. This in turn makes up significant obstacles for those who seek to lead a severe critical debate about which climate policies should be necessary because of the regional context. She points to the strengthening of right-wing movements that are strongly linked to anti-scientific and anti-environmentalist perspectives opposing climate change. In addition, she looks at the traditional political forces linked to specific economic interests, as well as critical views on current climate policies from parties of the left and traditional environmental groups. Losekann illustrates how radical right and denialist movements harm the construction of environmentalist criticisms.

In the chapter **How Green and How Just? Transition to Renewable Energy in Turkey,** *Hayriye Özen* examines the AKP government's climate policies. Considering the broader political economic structure and associated power relations, she demonstrates that the main driving force behind this transition is not green energy production, but the opening of new natural resources and areas to capital accumulation. She also shows how the mainstream green discourse serves the AKP in opening new elements of nature to an exploitative form of renewable energy development that is neither fair nor green. The analysis of the Turkish case thus shows how new environmental and social crises could arise from the "green" transition.

Jusen Asuka addresses forms of **Delay, Destruction, and Deception: The Greenwashing of the Japanese Government and Companies.** Even if the Japanese government plans to spend more than 150 trillion yen as the total climate change related investment for the next ten years, the status quo of fossil energy production is not fundamentally being questioned, while greenwashing tactics and promises of new technical solutions are being promoted. The author argues that combustion of ammonia/hydrogen and carbon capture utilisation and storage are supposed to play a big role in the governmental plan. Japan's CO_2 emission target for 2030 is not sufficient for reaching the goals of the Paris Agreement. Moreover, the current Japanese governmental climate policy is not even stringent enough to meet that insufficient target.

Teresa Ashe's chapter **Cold War Environmentalism and Modernity's Culture Wars: Climate Scepticism in the US** focuses on the emergence of the American anti-environmental movement which paved the way for the climate scepticism that has become part of a cultural war. Ashe summarises the history of the Amer-

ican environmental movements, in comparison to the Russian environmentalism to show how land management, the development of geo-science and the relationship between science and the state during the Cold War are important factors for understanding right-wing rejections of climate science in America.

In his chapter **"Let Us Stop the Crazy Deal": Environmentalism and the Green Deal in the Discourse of the Czech Populist Right-Wing and Far-Right Parties** *Zbyněk Tarant* analyses how right-wing populist and far-right milieus discuss the environment, global climate change, sustainability, and the Green Deal. The author evaluates online content produced by the movements themselves and clarifies the difference between localist environmentalism at the national level and the refusal to acknowledge the global, transnational threats to sustainable living. He also touches on the conspiracy narratives spread by the far-right in response to international sustainability initiatives like the Green New Deal.

Lluis de Nadal explores how political influencers spread climate misinformation on YouTube. In his chapter **Spain's Vox and the "Climate Culture Wars": The Role of Political Influencers on YouTube** he focuses on the "Alternative Influence Network" surrounding Spain's right-wing populist party Vox. The thematic analysis reveals a trend towards "post-denial" narratives that criticise climate policy and the environmental movement, often by employing conspiracy theories and misogynistic undertones. These narratives intertwine with broader cultural conflicts, spanning from feminism and anti-racism to environmentalism. Amidst an opposition to green policies, these climate narratives deepen a division between social groups—as the perceived "us" versus "them"—and conjure up feelings of resentment among young white males who see rapid cultural changes as threats to their traditional dominance and privilege.

Victoria Esteves shows in her chapter **Countercultural Denial in the UK—"New" Social Movements?** that climate change is a divisive issue within the United Kingdom, as policy and popular rhetoric circulating within England and Scotland can be at odds with one another due to their different stances on climate issues. To comprehend climate change denial fully, the author highlights the central role of antiscientific stances, conspiracy affinity and Postmodernism in how climate change denial operates in the UK more broadly.

The attitudes and counternarratives against climate discourses in the Norwegian population are at the focus of the chapter **The (In-)Justice League and the Battle of the Climate Narratives: An Ethnographic Study of Climate Policy Scepticism in the Norwegian Paradox** by *Marthe Elden Wilhelmsen*. In her ethnographic study, the author conducted qualitative interviews about perceptions of justice among climate policy sceptics in southern Norway from 2022 to 2024. She describes how the participants view themselves as marginalised truth-tellers in a moralised society, who feel excluded from the dominant climate discourse. Their

climate scepticism was driven by a perception of injustice. Wilhelmsen argues that this perception was clearly linked to such motives as the denial of responsibility and the defence of privileges.

The final chapter **Climate of Regression: Public Climate Attitudes and Radical Right Anti-Climate Mobilisation in the Battle Around the Green Transition in Germany** by *Christoph Richter, Noah Marschner, Janine Patz* and *Axel Salheiser* analyse survey data of the German population and investigate which of the numerous factors known from international research influence the perception of the climate crisis and support for climate protection measures in Germany. The results of this analysis point to a strong impact of political and cultural values—centered around ideas of inequality—that shape attitudes towards climate change perception and action.

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Confronting Denial in Mainstream Climate Change Policy Discourse

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Abstract

Coming increasingly into critical focus today are the limitations of standard distributional, procedural, retributive and recognitional components of an international order of climate justice that do not take the wider geopolitical aspects of global climate change sufficiently into consideration. For instance, the enduring influence of imperial histories of natural resource plunder (Carbon Brief, 2021) and related structures of economic, social and political inequality on the changing dynamics of a warming world are not taken into account (Moore, 2017). Similarly, the failure of this justice system to connect institutionally embedded patterns of discrimination and value inequality (NcNay, 2008) with current experiences of climate change disadvantage (Brugnach et al., 2014). This chapter explores the type of interpretive strategies used in international climate change policy discourse to deny the urgency of these issues and initiate corrective action. It will then consider how a new relational model of climate justice might be introduced to address such epistemic injustice and bring about greater equity in the distribution of climate related burdens and responsibilities.[1]

Keywords: climate injustice; interpretive denial; indigenous communities; global interdependency; democratic inclusion

1 Epistemic injustice relates to the silencing of alternative knowledge perspectives on nature that do not align with a dominant Western one and the wronging of specific subjects in their capacity to be knowledge agents (Fricker, 2007).

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The extent to which current climate change denial overlaps with a right-wing populist agenda (e.g. a lack of trust in political institutions, scientific knowledge, an anti-elitist and anti-immigration position) has been excellently documented by a range of authors including Krange et al. (2021) or Jylha and Hellmer (2020). As important as this research is, it is crucial we examine the pervasive use and many-sidedness of climate denial. Beyond more dramatic expressions of climate denial in populist discourse, it is also possible to detect a routine use of strategies of denial (Cohen, 2001, p. 34) in more "mainstream" climate change policy discourse, especially that pertaining to issues of justice. As science provides evermore precise evidence of the exceptional status of the current geological age, prospects for a denial of the facts of climate change prove more difficult (Chakraborty, 2017). The ethical, social and political implications of climate change, particularly in terms of its effects on vulnerable regions, including the Arctic, small island states of the Caribbean, Pacific, and Indian Ocean, as well as sub-tropical regions of Africa, Asia and Latin America, (Stern Review, 2006) grow evermore complex. Yet an awareness of the complexities of these issues does not seem to quell widespread ignorance of the reality of mass suffering (Cohen, 2001; Skillington, 2015; Malm & Hornborg, 2014). Here we may note an important distinction between acknowledging harm (the common practice of projecting knowledge of climate destruction onto victims as "the other") and taking the perspective and needs of those affected in account when making moral and political judgements on appropriate levels of commitment to action (the less common practice of defining victims as members of "our" community). This chapter assesses how these more embedded forms of denial manifest themselves in international policy discourse, enabling the silencing of those vulnerable to climate change and histories of oppression, before considering how they might be confronted and overcome with the aid of a more dialogic model of justice deliberation.

1. The Justice Dimensions of Climate Change

In relation to the issue of climate change, the distributional, procedural and recognitional aims of justice have, over the last three decades in particular (e.g. UNFCC, 1992; the Kyoto Protocol, 1992; Paris Agreement, 2015), come to be defined legally in ways that account for differences between peoples on the basis of levels of exposure to the risks associated with ongoing deteriorations in climate conditions. It aims to achieve greater equity in the distribution of climate related burdens and responsibilities, as well as greater parity of decision-making and human rights recognition. Because the destruction that flows from many

years of pollution almost certainly cannot be reversed, cumulative climate harms generate *pro-tanto* duties to invest in climate change mitigation and adaptation measures, especially on the part of heavy polluters. Legally enshrined principles of justice demand that those left with less than enough to sustain a secure, safe future as a consequence of such pollution activities be provided with some form of compensation. For example, the polluter pays principle states a party should contribute to fixing a problem in proportion to their responsibility for creating it.

When defined as governed by a cosmopolitan order of rights and duties of care operating within a framework of regional, national and transnational reciprocity, formal institutional commitments to climate justice would seem to ensure adequate assistance is provided to all members of the global community. The reality, however, is notably different. This chapter examines some of the interpretive strategies used by state actors to play down discrepancies arising between normative commitments to equality, responsibility, respect and care and "actually existing" relations of injustice (historically conditioned) affecting the life chances of millions.

2. Denial as a Strategy of Containment

Perhaps one of the most important elements of this strategy of containment is denial. As Stanley Cohen (2001) observes, at least three different types of denial can be noted. A "literal denial" of climate change is the assertion that it is, quite simply, untrue. "Interpretive denial", on the other hand, occurs when "the raw facts" of its advancement are not denied but, "a different meaning from what seems apparent to others" is given to its significance (Cohen, 2001, pp. 7–8). In the case of "implicatory denial", climate change is again acknowledged but all attempts to radically transform social-ecological relations and shift the focus away from carbon intensive development are resisted (Cohen 2001, pp. 8–9). The analysis below suggests that, to varying degrees, all three categories of denial observed by Cohen are evident in international climate change negotiations where the struggle to define the most appropriate "cognitive meaning" of the risks, responsibilities and rights implications of global climate change is an ongoing battle between competing interests (Skillington, 1997; 1998). Fearing the outcome of these negotiations will lead to a more regular employment of human rights "as a legal and political weapon" against major powers. The United States, for instance, has consistently chosen to deny the "special status" of climate change, noting it as "one of the many natural and social phenomena that may affect the enjoyment of human rights" and, therefore, an unlikely "cause" of human rights violations, particularly

international human rights.[2] Restricting resource rights' eligibility to "legitimate" legal claimants, especially those with a legal contractually grounded right to precious reserves of minerals, oil, gas, seeds, forests and arable lands, and striking "a balance" between environmental harm and the benefits of pollution activities are asserted instead as a more appropriate concern (Skillington, 2012). Strengthening commitment to this interpretive position (and its accompanying strategies of denial) is the growing number of legal cases being brought against polluting states. In 2006, the Inuit, under the auspices of the Inuit Circumpolar Conference, submitted a petition to the Inter-American Commissioner for Human Rights (IACHR) claiming the United States had violated the rights of the Inuit people to food, life and culture by failing to refrain from actions that would decrease the US's CO_2 emissions. A similar case was brought forward by the Arctic Athabascan Council against Canada for violating Athabascan rights through its air pollution practices, especially its contribution to high levels of black carbon widely considered an important driver of Arctic climate change due to its effect on snow and ice albedo. In 2022, Waratah's plans to build a major coal mine in the Galilee Basin in North-east Australia were legally challenged by a youth-led, First Nations coalition who successfully argued that the "climate change impacts" of this project would violate legal standards of safety and health. Today legal challenges have become a more regular feature of international climate change discourse (de Wit et al., 2020) in ways that would, indeed, suggest that human rights have become an important "weapon" used by those demanding greater accountability and legal redress. According to the Global Litigation Report: 2023 Status Review produced by the Columbia University's Sabin Center for Climate Change Law and the United Nations Environment Programme (UNEP) (2023), more than 2,500 lawsuits have been filed globally in recent decades covering a broad range of issues. These range from inadequate state performance in carbon reductions, to corporate inaction and climate related damages, prompting the Intergovernmental Panel on Climate Change in 2022 to list litigation as one of several key factors reshaping contemporary climate policy today.

Outside of legal courtrooms, however, the capacity of communities to influence international climate policy, especially those at the cold front of escalating climate destruction, has been limited. Campaigners point to consistent tendencies on the part of the world's larger climate powers to deny connections between histories of exploitation and colonialism and experiences of climate harm. In an official statement released after the devastating wildfires in Lahaina Hawaii in August 2023, Carmen Lindsey of the Office of Hawaiian Affairs drew attention to

2 Observations by the United States of America on the relationship between Climate Change and Human Rights, 2009. For further discussion, see Skillington, 2012.

the way these fires that destroyed the historic district and former capital of the Hawaiian Kingdom are a vivid illustration of systemic injustice against Indigenous people:

> "The fires of today are in part due to the climate crisis, a history of colonialism in our islands, and the loss of our right to steward our 'āina and wai' (land and water). Today we have watched our precious cultural assets, our physical connection to our ancestors, our places of remembering – all go up in smoke. The same western forces that tried to erase us as a people now threaten our survival with their destructive practices." (OHA Board Chair Carmen 'Hulu' Lindsey's statement on Maui fires, 9 August 2023)

Lindsey goes on to describe how US capitalist interests in Hawaii diverted water reserves to pineapple and sugarcane plantations, causing surrounding lands to become increasingly dry and flammable as temperatures have continued to rise. Colonialism brought a system of ownership of culturally significant land and water sources that is foreign to ancient Hawaiian culture, especially its belief that such resources belong only to the Gods. As such, Lindsay drew attention to the role colonial practices have played in creating this disaster, as well as the ways in which interpretive and implicatory denial are used to delimit debate on the issue of responsibility and the nature of harm to a strict focus on the present. What is not considered in international policy discourse is how these climate disasters are created by histories of oppression. Denial is strategically used to avoid a focus on the US which, historically, has been a recipient of the benefits of material gains from its colonial expansions in Hawaii and has subsequently accumulated certain duties of responsibility to its people as per the beneficiary pays principle (Shue, 2010). That is, those for whom pollution-generating colonial activities have gravely depleted the availability of essential resources and secure life chances. The current situation of marginalised communities in these and similarly exploited world regions is one affected by a climate of "total change", where global warming combines with already existing economic, social and cultural challenges, as well as strategies of denial on the part of more powerful climate players, to further the expansion of inequalities between groups of people. The distributional, procedural and recognitional aims of climate justice must be redefined in ways that can take account of these basic elements of injustice and challenge strategies of denial.

Since 2007, representatives of small island states have requested that the Conference of the Parties (COP) works more closely with the Human Rights Council, the chief intergovernmental human rights body in the United Nations, and the Office of the High Commissioner for Human Rights, to bring these issues to the centre of international debate. In a moment of tragic symbolism or, indeed, strategic opportunity for larger polluting states, the Alliance of Small Is-

land States was absent from the room at the COP28 negotiations in December 2023 when parties agreed on the final interpretation of key elements of the global stocktake text – an assessment of the world's progress on climate change mitigation and the primary policy actions needed moving forward. A vital opportunity to ensure the terms of international justice are specified in relation of the diminishing capacities of growing numbers to withstand the effects of *globally sustained* climate destruction was missed. As these actors point out, opportunities to adapt to the challenges posed by rising temperatures and sea levels, cyclones, and other climate related events continue to be actively curtailed by the activities of larger communities and transnational corporations. That is, by political, ecological and economic forces largely beyond their control (e.g. a record number of fossil fuel industry lobbyists attended COP28 in December 2023). In highlighting how a politics of climate change denial threatens their survival, these actors bring much needed clarity to bear on the kind of measures that are necessary to ensure that minimum standards of democratic inclusion, accountability, recognition, responsibility and duties of care are respected. What is clear is that corrective justice requires something more fundamental than a non-specific pledge to phase out fossil fuels (COP28) or implement a pollution tax on energy and transport services.[3] As a commonplace approach to sustainable development, a green tax will not secure greater climate justice for the peoples of vulnerable regions whose historical experiences of wrongdoing exacerbate current ones. Taxes may be a standard feature of modern state economics but are not necessarily an effective deterrent to over-spending carbon budgets or preventing global greenhouse gas emissions from soaring (Brooks, 2019).

3. A Non-Recognition of Indigenous Communities' Knowledge of Nature

Drawing on Honneth's (1995) thesis of recognition, we may describe those strategies of denial noted above as a key component of a wider project of non-recognition of Indigenous communities' experiences of hardship or knowledge perspectives on the stewardship of nature. With the climate change and sustainable development debate still largely circumscribed around industrial capitalist interests and Western viewpoints, the tendency is for differences to be cancelled out. With-

3 "Corrective justice is the idea that liability rectifies the injustice inflicted by one party on another" (Weinrib, 2002, p. 349). Law is said to re-establish equality in this instance by depriving one party of the gain and restoring it to the other.

out any real engagement with Indigenous perspectives on nature's protection, the distinctness of their position as "other" is maintained through an emphasis on its distance from the Western norm. Indigenous communities' encounters with climate harm are routinely overlooked by various interpretive forces and shared habits of inattention (Zerubavel, 2006) to Indigenous detail, even in that which appears to be a more inclusive policy discourse.

The Climate Change Synthesis Report: Summary for Policy Makers (2023) produced by the Intergovernmental Panel on Climate Change (IPCC) and the UN Environment Programme 2022 *Spreading like Wildfire* both identify a need for the international community to draw on a more diverse range of knowledge sources, including Indigenous knowledge expertise on stewardship of nature, to enhance understanding of persisting barriers in the way of resilience-building. Yet, the newest strategic plan of the United Nations Development Programme (2022–2025) lists primary partners in the drive to accelerate "progress towards green, inclusive transitions" as (1) member states; (2) United Nations agencies; (3) international financial institutions; (4) civil society and non-governmental organisations; (5) academia and; (6) the private sector. No reference is made to the role of Indigenous communities. At the state level, there is also a clear reluctance to grant sufficient recognition to Indigenous climate action skills (knowledge of land, water, ice and fire stewardship). The costs of such a lack of recognition are borne heavily by Indigenous communities who traditionally practice controlled cultural burnings of land in early spring and late fall as key spiritual and social cultural events in Indigenous heritage. The Canadian government has taken measures of late to render such traditional practices illegal, leading to an overgrowth of flammable vegetation near Indigenous lands. Most Indigenous Canadian communities are located near fire prone forests (e.g. boreal forests) which require controlled burnings to stay safe. While Indigenous communities represent just 5 percent of Canada's total population, they have made up to 42 percent of wildfire evacuees at various points over the past decade, according to the findings of an audit by Indigenous Services Canada in June 2023.

First Nations people are, on average, three times more likely to be displaced by uncontrolled wildfires than the Canadian national average. On top of this, Indigenous communities have the lowest life expectancy of any ethnic group in the US or Canada due to poor access to health care, high rates of poverty and geographic isolation (Blue Bird Jernigan et al., 2015). Thus, while wildfires today are increasingly understood as linked to climate change (National Oceanic and Atmospheric Association, 2023), it is perhaps more true to say that they are also linked to climate change scenarios exacerbated by acontextual or ethno-underdeveloped sustainable development initiatives. That is, westernised approaches offering a generalised perspective on sustainable development "from nowhere"

(Benhabib, 1992)— acontextual, acultural and ahistorical. To be effective, sustainable development policies must emerge from reciprocal engagements with the cultural practices and perspectives of different communities in their relations with nature and rituals of community solidarity-building (Navarrete & Zohar, 2021). Top down, science-led sustainable development target approaches can be self-defeating when enforced without consideration for already existing, historically tested practices of caring for nature (e.g. banning controlled cultural burnings of flammable woodland vegetation). Such policy becomes yet another expression of a non-recognition of Indigenous communities' knowledge of nature and relations of care. Instead, priority is given to the pyro economies of a global capitalism based on expanding heat, rising temperatures and accelerating rates of resource destruction. The need to control the unpredictability of nature has facilitated the opposite—a loss of control and fire now rages irrepressibly.

We may note three forms of recognition that are actively withheld from Indigenous communities. First, a withholding of the conditions allowing for the realisation of Indigenous peoples' potentials as sustainable development advocates. Second, a non-recognition of Indigenous communities' rights to culture, cultural heritage, self-determination and equal treatment before the law. Third, a non-recognition of the unique qualities of Indigenous peoples' historical relations with nature and valuable contributions to finding climate solutions. The example of Indigenous communities highlighted here draws attention to the intricate work involved in preserving relations of non-recognition, stereotyping and cultural imperialism in climate change and sustainable development discourse. This involves preserving conditions that sustain the impossibility of an identity and a culture that has no place in Western definitions of truth and relations with nature and how these conditions, in turn, become institutionally embedded in various decision-making settings. The terms of official deliberation and policy making are deliberately limited to dominant Western paradigms of reasoning.

One more prominent aspect of this reasoning is presentism. That is, a bias towards the present or the here and now as the most relevant context of justice, as expressed in the preference for short term electoral cycles and a limited degree of historical reflexivity. Presentism shapes ontological ways of being in the world where long-term trajectories on environmental risk are largely ignored in favour of "myopic" perspectives that limit responsiveness to societal problems to the immediate present (Skillington, 2019b). As long as justice is defined in these terms, what is right for all states to do in terms of ongoing acquisitions of limited land, seabed and atmospheric resources will not be considered in terms of what is owed to the people of climate vulnerable and historically disadvantaged regions. Instead, private gain will continue to take precedence over communal loss and insufficient attention will be accorded to the way historically embedded

patterns of interaction with land air and oceanic environments threaten the safety of multiple communities. What we may call the dominant political interpretive framework on climate change is, therefore, characterised by a high level of denial. The persistence of a self-interested "national outlook" on scarce resource distribution and management, climate induced migration, failing crop yields and poverty depend in part upon the continuation of an interpretive denial (Cohen, 2001, p. 7) of the facts of ongoing destruction, as well as an "implicatory denial" of duties owed to global others. Add to this an institutional emphasis on individual rights and responsibilities. Serious limitations persist in our understandings of the boundaries of responsibility for the climate disasters that unfold before us. Dead persons clearly cannot be made accountable for historical carbon emissions. However, as collective entities that endure (usually) over time, states can be held accountable. As climate change agents, states do not leave the societal stage in the same way as people do. Their resource depletion choices continue to exert an influence for many decades, even centuries, shaping the lives of many people. In *Our Common Agenda* (2021) UN Secretary General, António Guterres acknowledged that "the social contract between governments and their people" needs to be rethought to address "challenges [that] are interconnected across borders and all other divides".

Addressing such challenges, however, requires far-reaching change. While states are widely considered ideal candidates for the initiation of an intergenerationally relevant model of climate justice, whether that extends sufficiently to transboundary harms and initiating corrective action, is another matter. To address the latter, change is required in the temporal framing of justice and in the manner in which nature is conceptualised—as an object to be carved up and distributed on the basis of territorial rights. Such a view runs contrary to much of the more fluid or dispersed nature of planetary life, as well as the increasingly transboundary reach of climate harms. The growing impractical dimensions of a nature as object perspective draw attention to the stark limitations of Western paradigms of reasoning and the need to reconsider the practical and moral ethical relevance of their validity to emerging climate realities. Can we really divide up access to a safe atmosphere, clean air, geoengineered rainfall and cloud coverage, for instance, on the basis of territorial or property rights? The mobile character of many of nature's properties means that the justice dimensions of their distribution and long-term care cannot be delimited to specific territories or private ownership claims. Instead, all earthly inhabitants share this nature as a component of the commons. Therefore, we require a relational view of climate justice, whereby relations of justice extend beyond what socially connects communities in their belonging to specific territories to one that also civically

connects them with shared expectations of justice, respect and duties of care in one planetary system (Young, 2011; Skillington, 2023).

4. Actualising the Principles and Practices of a Relational Model of Climate Justice

An object-centred view of nature consistent with property rights remains the dominant interpretive framework but is not a naturally relational one. That is, considerate of the needs of others. Instead, a private acquisition of limited resource supplies continues to take precedence over a focus on communal loss, with the result that insufficient attention is accorded to the way agents, in their interactions with land, air and oceanic environments, affect multiple communities. A relational view of climate justice, by contrast, points to a need to protect what happens in the spaces between resource acquisitions by addressing how we shape each other's lives and that of a wider natural order. What makes a resource base useful or desirable in the first instance is the cumulative activities of multiple agents, not just those of one. The challenge then is to bring these various agents into focus when deliberating on why we all bear responsibility for the protection of interdependent communities and ecosystems. A principle of co-responsibility is already articulated in international legislation (e.g. United Nations Framework Convention on Climate Change, 1992). This framework explains how traditional lines of separation between groups of people, territories, communities and generations do not exonerate states, as members of interconnected communities, from fulfilling extra-territorial legal obligations, especially in situations of increasing resource constraint. At present, such issues are usually met with a philosophy of "each to their own" in a world where there is no global sovereign or supreme arbiter of conflicts over growing resource shortages. And yet the global reach of climate change undermines the validity of such claims, particularly the notion that responsibilities stop firmly at state borders (Vanderheiden, 2008; Miller, 2007). As a life supporting commons, the climate system is inherently cosmopolitan in ways that necessitate a more common earth reasoning. Regardless of their geographic origins, rising GHG emissions have an impact everywhere, causing small-scale and universal ecological fates to continuously collide.

The a priori condition of our possession of the earth's territories and finite resources (that in their original state belong to all, Kant, 1996), is that which we share with others (including distant others). For theorists such as O'Neill, climate justice, therefore, must be defined with a framework of regional, national and transnational reciprocity in mind (O'Neill, 2001). Actualising such a framework,

however, requires that the equal moral worth and dignity of all persons be made more institutionally relevant, including those strategically made less visible in international climate change negotiations. Secondly, it requires that concrete applications of the rights of all peoples to safe haven, food security, life, freedom of movement and self-determination take diachronic (actions performed over time) and synchronic (action potentials of the present) factors into consideration when assessing how best to live sustainably. This requires particular attention in contexts where significant climate adversities will prevail (growing risks to land, ocean, coastline and freshwater ecosystems and related losses, IPCC WGII Sixth Assessment Report, 2022).

5. Conclusion

This chapter explores how institutionally embedded patterns of discrimination and value inequality (NcNay, 2008) are re-enacted in responses to global climate change (Brugnach et al., 2014). To address these inequalities, it is essential that justice begins and ends with the experiences, insights, cultural knowledge, needs and circumstances of affected groups of people. When inclusive participatory procedures do not begin from this vantage point but rather from the viewpoints of those whose actions ultimately serve to debase the constitutive principles of participation, they wrongly serve as mechanisms to relay information to communities on decisions regarding the management of resources or SDG targets defined elsewhere. In doing so, they reproduce relations of inequality and cultures of denial. Participation in this instance becomes a form of epistemic injustice – participation in name but not in practice. Pledges to realize an economically, socially and environmentally sustainable world require more than just rhetorical commitments to reform. More importantly, they necessitate the undoing of a current, politically motivated refusal to act on duties owed to those most affected by climate change and histories of colonial plunder. Democracy can no longer support the exclusionary governance practices of self-legislating power networks serving private interests and short-term gains. To do so is to abuse the "borrowed authority" bestowed on legislators by voting publics. To address the current priority of climate injustice, it is necessary to devise a more expansive framework of regulation and accountability for climate and related harms. Devising a new deliberative platform across multiple communities of affectedness is essential if the facts of inequality and current deformities in representations of historical truths are to be addressed satisfactorily (Skillington, 2017, p. 235).

More inclusive decision-making and enforcement procedures at the local, regional and transnational level are needed to ensure that the needs of the climate

vulnerable are addressed in a culturally sensitive and respectful manner and a live correspondence is maintained between citizens, elected representatives and common interests. David Held (2010) recommends building such a multi-layered governance framework that works with existing structures, including the UN system and international law, as well as a reformed political order to protect the rights and freedoms of all peoples (i.e. freedom from want, freedom from ecological persecution, the threat of war, or loss of home. See UN Charter, 1945). Communities' rights to shared resources (e.g. a stable atmosphere) are vulnerable to abuse if not protected by an institutionalised order of justice capable of documenting communities' exposure to risk, their distinct needs and entitlements across local, regional national and international settings. However, this requires that all states agree to give greater recognition to a principle of democratic inclusion when exercising rights over resources on their territories or those shared in common. A democratic legitimation of resource distribution must be by and through all people affected by these decisions ("We the people of the United Nations", Preamble of the United Nations, 1945) to protect all communities' capacities to be change agents and positive influencers overs climate futures, especially in this moment of "last opportunity" to avoid climate freefall (IPCCC, 2022; Skillington, 2022).

John Dryzek et al. (2019) recommend that additional deliberative tools be implemented, including citizen assemblies, discourse chambers and mini deliberative forums, to address potentially contentious issues around historical and contemporary wrongdoing (e.g. the mismanagement of energy, water and land, as well as a lack of investment in resilience building, flooding, fire and storm damage repair), non-recognition and exclusion. These tools would ensure normative principles of climate justice are situated firmly within relational frameworks that speak to differences arising in relation to historical, geographical, generational and socio-cultural experiences of loss (see also Skillington, 2019). The focus thereby shifts from an assessment of environmental impacts to a consideration of those affecting the cultural, human, economic, political and civic rights of all peoples in ways that renew the institutional relevance of key legislation (e.g. the Paris Agreement, 2015; International Covenant on Civil and Political Rights, 1966; International Covenant on Economic, Social and Cultural Rights, 1966).

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Still Heating: Unfolding a Typology of Climate Obstruction

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Abstract

Earth is on a catastrophic trajectory towards severe ecological destruction, and yet, there is little sign of halting the rise of global greenhouse gas emissions or stopping the extraction of fossil fuels. Against this background, in this article we re-engage with a recently proposed typology supposed to cover three modes through which effective climate action has been obstructed. These are, first, *primary obstruction*, that is, the spread of disinformation and/or denying the very existence of anthropogenic climate change. Second, *secondary obstruction* concerns more or less deliberate obstruction via opposition to climate action and policies via, for example, reference to "the threat of deindustrialisation". Finally, *tertiary obstruction* denotes modes of living which, while not necessarily obstructing effective climate change intentionally, concerns "living in denial". Drawing on recent research and examples, we revisit this typology.

Keywords: climate change skepticism; climate change denial; denial machine; disinformation; global warming

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With the two latest Conference of the Parties (COP27 and COP28) taking place in oil extractivist states (as will COP29, which will take place in Azerbaijan), concern over the influence of fossil-fuel lobbyists and the obstruction of climate mitigation policies has been widely reported (for example, Lakhani, 2023). This is part of a process, unfolding over the last decades, which has seen debates over climate change become ever more present in public debates as life on Earth is ever more visibly harmed. However, while varying attempts to keep fossil fuels in the ground and decrease greenhouse gas emissions have been observed, concurrently, diverse techniques have been utilized to block and delay these mitigation attempts. It is true that these techniques have never solely revolved around the denial of scientific knowledge relating to anthropogenic climate change (Ekberg et al., 2022). However, the various ways in which effective climate policy, from the level of international meetings to national policy making and public opinion has been undermined by financially and politically motivated actors, calls for complex conceptual frameworks rather than monolithic notions of, for example, "denial". In consequence, and while more complex conceptualizations exist (for example, Cohen, 2001; Capstick & Pidgeon, 2014; van Rensburg, 2015), we suggest going further. To do so, we draw on our earlier work (Ekberg et al., 2022) and taking the notion of obstruction as an umbrella term to integrate three broad dimensions. We refer to these as:

- primary obstruction (spread of disinformation and denial of the scientific evidence about anthropogenic climate change);
- secondary obstruction (opposition, delay or dismissal of effective climate action and policy); and
- tertiary obstruction (actions and inactions which, even unintendedly, hamper climate action).

Primary, secondary and tertiary obstruction signify different ways in which effective climate action is undermined by individuals and collectives—all of which entail varying levels of responsibility and capacity for reducing emissions. However, they all overlap and contribute to the same outcome: the collective failure to successfully address climate change. As we indicate in Figure 1, these three types of obstruction are neither separate nor only loosely connected. Instead, they are interwoven in complex ways, cutting across the political, economic and wider cultural sphere. One example of this are the so-called "industrial/breadwinner masculinities" (Hultman et al., 2019), which could, on face value, be categorised as mechanisms behind tertiary obstruction, given that such masculinities are traditionally interwoven with fossil-fuel-related ways of living even though they do not necessarily oppose effective climate action intentionally. However, such masculinities can be understood as effects of primary obstruction since these actions

have been partly reproduced by obstructionist think tanks (Pasek, 2021; Moreno-Soldevila, 2022) and fossil-fuel companies (Letourneau et al., 2023). Furthermore, they can also be seen as cases of secondary obstruction as in the case of the far right and its construction of masculinities (Vowles & Hultman, 2021).

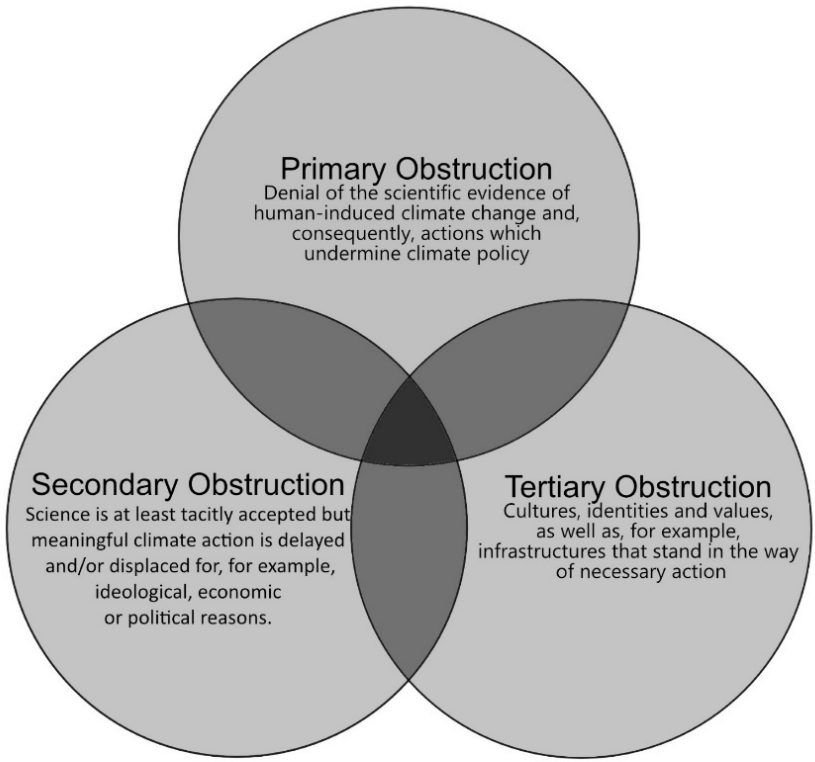

Figure 1: Three types of obstruction. While different, they can and do overlap.
Source: Ekberg et al., 2022, p. 12

Thus, our conceptualisation offers an integration of multiple perspectives and levels of society, as well as both strategic actions and unintentional behaviours which perpetuate the heating of our planet. And while we recognise that this contribution is limited in that our backgrounds and expertise lie in the Global North (from which obstruction has primarily emanated), we view our model as abstract enough to be of use around the globe. As such, we hope to offer an accessible

and comprehensive map to understand the historical failure to mitigate climate change.

Such an integrated proposal is certainly needed given that positive news concerning climate change mitigation remains overshadowed by less encouraging news on almost all fronts. Indeed, even though states around the world have pledged to address climate change, their actions have not corresponded to these pledges and emissions are not reducing at the necessary pace. Consequently, 2023 yet again broke records for being the hottest year on record (Copernicus, 2023) and we are increasingly seeing warnings concerning abrupt and irreversible changes in the climate system (that is, tipping points, including the collapse of big ice sheets in Greenland and the widespread thawing of permafrost; Lenton et al., 2023). Indeed, as the figures by the Intergovernmental Panel on Climate Change (IPCC) show, there is little room for manoeuvring left. It is now necessary for greenhouse gas emissions to peak by 2025 and be reduced by 43 percent by 2030 to limit global warming to around 1.5 degrees Celsius (IPCC, 2023). Unfortunately, the climate policies that this goal would necessitate are still lacking, and the technological solutions that many have relied their hopes on cannot cut emissions fast enough (Lyytimäki et al., 2023; Stoddard et.al, 2021).

The influence of disinformation campaigns and fossil fuel lobbying is arguably a crucial reason for the failed attempts to formulate and implement effective climate policies. While this has been acknowledged for a long time (Ekberg et al., 2022)—now also explicitly in the IPCC report (Hicke et al., 2022)—serious attempts to address these sources of influence are still lacking. In fact, in the most recent COP in December 2023, a record number of fossil fuel lobbyists were given access, outnumbering almost all national delegates and official Indigenous representatives (Lakhani, 2023). This provided the fossil-fuel industry with yet again an unproportionally strong voice and possibilities for influencing climate policy. Indeed, pro-economy lobbying occupies a central position in climate policy networks, even though it may not be visible to the media and public (Vesa et al., 2020).

In the following sections, we discuss and exemplify the three types of obstruction further, drawing on different domains, from the economy to the political and the everyday.

1. Primary Obstruction: "Nothing to See Here"

Primary obstruction includes all those wilful or ignorant activities which have come to be known under the labels of denialism and epistemic/evidence scepticism. The history of such activities is by now researched and explained in much

detail, pointing out how incumbents and vested interests of the fossil-fuel industry aimed at protecting their business model. They did this by blocking environmental knowledge adversarial to their interests and limiting the effects of environmental legislation already during the mid-twentieth century (Ekberg et al., 2022). However, towards the end of the 1980s, and due to increasing successes by Green political parties and growing societal awareness and willingness to act, fossil-fuel companies were at a crossroad. Yet instead of acting upon what their own science showed (that anthropogenic climate change was happening), these companies have been at the centre of doubling total emissions of greenhouse gases since then (Dunlap & McCright, 2011). Indeed, an influential fossil-fuelled "denial machine" was set up in 1989, with the purpose of creating uncertainty and distrust of climate science by manufacturing and spreading disinformation and doubt. These activities have mainly been funded by extractive companies and performed by (neo)conservative and neoliberal think tanks and coalitions, right-wing media and blogs, and—later—networked influencers. For example, organisations such as the Global Climate Coalition (GCC), Heartland Institute, the George C. Marshall Institute, and other think tanks and lobbyist organisations aimed at shaping how climate change was perceived, most consequentially maybe by publishing pseudoscientific reports and articles claiming that the science surrounding climate change threat was uncertain (Oreskes & Conway, 2011). This led, for example, the George W. Bush administration to change its position on the climate issue by blocking international efforts to reach a climate agreement via the U.S. delegates. Several tropes of primary obstruction pioneered by the denial machine and spread by the GCC are still in use globally today. For example, Brulle (2023) has emphasized how the GCC has claimed that there is no ongoing heating; humans are not responsible; the consequences are positive; and/or any possible negative consequences are minimal in relation to other, more pressing issues. Political action to mitigate climate change was consequently impacted and has been slowed down in many cases through direct lobbying by fossil fuel companies (for example, Depledge et al., 2023; Graham et al., 2020; Crowley, 2015; McCright & Dunlap, 2003).

Major examples of such primary obstruction include, firstly, the so-called Climategate from 2009. That is, a few weeks before the Copenhagen climate conference COP15, thousands of e-mails were stolen from a server at the University of East Anglia in the United Kingdom and uploaded to various websites, including ones funded by the Heartland Institute. The term Climategate (first used on 20 November 2009 in a blog post by James Delingpole, a well-known climate obstructionist) suggests the existence of irrefutable proof that the criticism of the IPCC had been correct all along. The conspiracy theory came to dominate, for example, CNN's reporting during the first days of COP15, generating considerable

press attention across the U.S.A. and around the world. The charges of corruption, lies, cover ups and fraud by IPCC and climate scientist did not hold up to close analysis—but the perception took hold and was widely taken up by far-right political leaders and parties. Secondly, Donald Trump's victory in the 2016 U.S. presidential election and Jair Bolsonaro's election as president of Brazil in 2019 manifested the denial machinery's control of climate policy from inside democratic institutions. Trump made sure the fossil fuel industry was well represented in the administration and a "swamp" of lobbyists (that Trump promised to "drain") moved into the White House (Ekberg et al., 2022).

Relatedly, the denial machine's agenda has successfully spread doubt and influenced public opinion. Indeed, many ordinary members of the public, particularly in Anglophone countries, have adopted primary-obstructionist positions, be it against better knowledge, ideological motivations, or based on disinformation (Jylhä et al., 2023).

2. Secondary Obstruction: "Let's Look the Other Way"

The concept of secondary obstruction includes all those calls which do not deny the science of climate science, but nevertheless delay or forestall meaningful climate action. Arguably, such obstruction has been the dominant strategy of climate obstructers over the last decades and has been observed across the political field, spanning from the likes of Social Democrats to far-right political parties (Ekberg et al., 2022). While motives might differ, such obstruction drives dismissive claims, such as "one should take a rational, non-alarmist approach" and "one should move cautiously as we cannot destroy our industry, while others do nothing".

With regards to the interplay between politicians and citizens, research has indeed shown that people are not willing to support climate policies if they perceive them as unfair and ineffective, or if they do not trust the politicians who formulate and implement them (Cologna & Siegrist, 2020; Drews & van der Bergh, 2015). However, it is precisely here, with far-right actors fuelling dissatisfaction, distrust and anti-establishment views, that climate policies become a target. The intention of far-right actors is to affect voters' attitudes and to mobilize audiences.

Indeed, arguments against climate policy are especially weaponised by the far right[2] (see, for example, Ekberg et al., 2022, pp. 69–94; see also Schwörer & Fer-

2 This spectrum spans from anti-liberal, radical-right political actors to outright anti-democratic, extreme-right ones (see Mudde, 2019).

nández-Garcia, 2023). And while this political camp has long engaged in primary obstruction, for example with the neo-fascist British National Party preparing a 40-page Briefing Paper (*Debunking Global Warming*) for the 2009 COP in Copenhagen to dispute the existence of anthropogenic climate change; secondary obstruction is much more common here (for example, Forchtner & Lubarda, 2023; Küppers, 2022). Indeed, these authoritarian ethnonationalists, be they party or non-party political actors, have, for example, employed conspiracy theories ("climate change as a global hoax to force, for example, 'ordinary Swedes'—who are understood in ethnic/racial terms—under the iron fist of supranational elites") to support the claim that humans are not responsible. However, arguments against climate change policies are more often driven by an alleged concern over "deindustrialisation" and the economic despair it would bring.

Besides "deindustrialisation", dismissive arguments revolving around Greta Thunberg and climate activists/activism more broadly have been prominently employed in recent years. These are ultimately attempts to obstruct climate mitigation efforts by constructing climate activists/activism as irresponsible and irrational, as alarmist, hysterical and religiously deluded, in this way making climate activists out to be a problematic group in society. Such othering has a long history, not least vis-à-vis the aforementioned Thunberg, a history that is clearly gendered and misogynist (Vowles & Hultman, 2021; Forchtner, 2024; Mosquera & Jylhä, 2022). Those who accept such ideas, or at least who don't reject them, are likely to find climate activists/activism illegitimate, making it even less likely for climate mitigation to find support amongst these quarters of society. One could say that this line of argumentation has been radicalised over recent years, and it is here that the case of "climate terrorists" has become significant, as a way of framing and securitizing the issue.

Indeed, a brief analysis of posts addressing "climate" between 2018 and 2023 by the official Twitter (now X) account of the German far-right political party Alternative für Deutschland (Alternative for Germany) (for more on the party and its communication around the climate, see Forchtner & Özvatan, 2023; Küppers, 2022) illustrates this obstruction. Firstly, the centrality of the aforementioned othering, with the nouns "hysteria", "madness", "extremism" and "Greens" dominating their posts.[3] Furthermore, there is relatively little change in terms of who is othered: from "Greens", "Fridays for Future" and "Federal Government" in 2018/19 to "Extremists", "Traffic Light coalition" (simply *Ampel* in German) and, once again, "Greens" in 2022. However, in 2023 (until September) "Climate Terrorists" becomes the most frequent nomination. Not only does this arguably represent a radicalisation of the discursive struggle on the side of the far right

3 This is based on frequency word count (software: AntConc) in 137 tweets containing the word "climate".

(and beyond), but also attempts to fuel affective polarisation in order to obstruct attempts to mitigate climate change.

3. Tertiary Obstruction: "Living in La La Land"

Finally, tertiary obstruction denotes the various ways in which unsustainable systems are being maintained and reproduced even by collectives and individuals who accept the science of climate change and acknowledge the need for mitigation and adaptation.

In relation to tertiary obstruction, we, one the one hand, recognize the value of individual engagement in mitigation efforts in their roles as ordinary citizens, members of communities, political actors, normative influencers, and consumers. On the other hand, it is crucial to acknowledge the embeddedness of individual opinions and actions in a web of socio-economic relationships, information environments and societal structures (Ekberg et al., 2022). Thus, even though many of the factors may manifest at an individual level (for example, certain values and identities, such as "freedom" and "traditional masculinity" respectively, conflict with the proposed climate reforms), they are influenced by processes that take place at more collective levels. Moreover, certain infrastructures and cultures (for example, an extensive highway network and a culture which values private transport respectively) contribute to obstruction by making climate action too time-consuming, costly, or even impossible. To change these, policy makers need to implement extensive reforms, yet the citizen's voice is crucial in demanding and legitimizing these reforms (Ockwell et al., 2009).

One of the most obvious manifestations of tertiary obstruction is the "attitude-behaviour gap" in environmental engagement. As discussed already by Kollmuss and Agyeman (2002), there are myriad psychological, economic and structural factors that explain why individuals do not act in accordance with their pro-environmental values. For example, plant-based food may be perceived as a non-option because it conflicts with certain identities (for example, traditional masculinity) and cultural customs that put meat in a central position, but it can also be unavailable in some geographic areas and eating contexts. Norms and cultural practices are difficult to change, yet, it could be crucial for gaining momentum in climate action. Indeed, while individual lifestyle changes *per se* have a minor effect on the climate system, individuals can make a large difference by influencing the norms in their social environment and by signalling to the policy makers that they support climate reforms (see also, for example, Hampton & Whitmarsh, 2023). Some of the obstacles in the way of norms changing include that people tend to underestimate how interested and concerned other people are about cli-

mate change (Geiger & Swim, 2016) and overestimate the existing polarization over the topic in society (Jylhä et al., 2023).

To exemplify another possible source of inaction, we focus on the emotions, such as worry, anxiety, powerlessness, and guilt, that might be felt when living amidst an ongoing climate crisis. To maintain mental wellbeing, individuals need to find ways to cope with these feelings. Often, coping entails strategies that promote environmental engagement (for example, information seeking or collective action), and contributes to constructive forms of hope, whereby individuals can switch their perspective between (a) their concerns and (b) sources of hope and a sense of meaningfulness (Ojala et al., 2021). However, some may reduce their concerns by dismissing the dangers of climate change, leading to hope based on denial (Ojala et al., 2021). Anxiety can also take forms that lead to a state of paralysis and mental health problems (Clayton, 2020). Moreover, people can experience inner conflicts when recognising that their personal and collective lifestyles/livelihoods/identities are inherently tied to environmentally detrimental practices. To alleviate the discomfort caused by this, individuals and collectives can construct and share various self-defensive strategies, including avoidance of discussing/thinking about the topic (Norgaard, 2006; Wullenkord & Reese, 2019). These emotional processes highlight yet again the urgent need for rapid and visible climate action by those able to facilitate significant impact, such as policy makers and high-emitting industries, which would signal that climate change is (and should be) taken seriously in society, in turn providing sources for constructive hope and motivating climate action.

4. Conclusion: Adding Oil to the Fire

On 21 November 2023, during the run-up to COP28, Sultan Al Jaber who would preside over the event, claimed that "[t]here is no science out there […] that says that the phase-out of fossil fuel is what's going to achieve 1.5" degrees Celsius (Friedman, 2023). While he has also stated, for example, that "phasing down fossil fuels is inevitable" and "essential", this claim is yet another example of how even the most obvious and least controversial step to prevent future harm caused by climate change—that is, to stop burning fossil fuels—is still being questioned. This is not only astonishing, but illustrates the persistent effects of obstructionist activities, the way in which denial, delay and inaction have sedimented.

Indeed, it is the conceptualisation of different modes of climate obstruction within one framework—primary, secondary and tertiary obstruction—that we see as the greatest strength of our proposal, one which we furthermore believe to be applicable not only to countries of the Global North, but hopefully also in

other contexts. However, in light of a colonial past and capitalist present, climate protection and the assessment of its obstruction need to differ. After all, different parts of our planet are characterised by unequal conditions, also in relation to both historical/present contributions to relevant emissions and varying extents of suffering caused by them. For example, while specific groups in the Global South might engage in secondary obstruction similar to actors in, for example, Germany, the claims made by the latter, regarding "deindustrialisation" or the use of fossil-fuel-based private transport, unfold within a radically different context. As such, energy transformations and energy throughputs must be contextualised and assessed differently in the foreseeable future as historical and per capita emissions substantially differ.

Moreover, it is not the three types as such, but the dynamics between them, which are particularly relevant for further research. That is to say: how have the three types of obstruction introduced above interacted, been interwoven with each other, and have as such developed historically specific assemblages of obstruction? Dismantling these symbolic and material structures is paramount for preventing further harm to life on Earth.

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Extractivism and Climate Justice in a Context of Political Contestation in Zimbabwe

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Abstract

This chapter explores the nexus between extractivism and climate justice in Zimbabwe. The country has been going through a protracted political crisis, particularly so after the post-November 2017 "military assisted transition". Available data shows that the extractive sector plays a strong economic role in different countries, many of which face challenges such as resource dependency and weak governance. Selected key sectors—mining and energy—are at the core of extractivism in Zimbabwe, leaving the country stuck in the fossil energy age. This comes at a time when the world is calling for green transitions to cleaner and sustainable renewable energy and the country has made commitments to a low carbon development strategy. The new lithium frontier is expanding and mutating and this can facilitate clean energy and mobility transition while also creating green job opportunities. However, as we will illustrate in the following chapter, green jobs and green energy are, so far, a fantasy. This chapter utilizes various case studies to explicate what can be conceived as violent extractivism and extractivist banditry in both old and new mineral frontiers, showing how a political rhetoric on green transition is playing out and how climate justice remains an illusion for local communities.

Keywords: extractivism; climate justice; green transition; renewable energy; Zimbabwe

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This chapter interrogates dynamics around extractivism in the context of historical and contemporary political contestations in Zimbabwe alongside the implications for climate justice in the country. The concept of extractivism and its different variants are discussed in detail in Section 2. Zimbabwe possesses a substantial amount of mineral resources, which serve as the foundation of its economy—an economy that (partly) heavily relies on mining. These resources contribute to more than 60 percent of the country's foreign currency profits (Mawowa, 2013). Zimbabwe heavily depends on the extraction of various resources, ranging from lithium and gold to coal and diamonds. The country's extensive mineral wealth has fueled a resurgence of extractivist and neo-extractivist policies over the years. Extractivist activities, which also go beyond minerals, have shaped Zimbabwe's political spaces in complex ways. The social, economic and environmental consequences of mining during colonial rule and succeeding political regimes have been subject to disagreement due to the sector's importance in national development policy (Hirons, 2014). The mining sector across the country is causing widespread environmental degradation. The question of whether Zimbabwe represents a case of a resource-cursed extractivist economy or has adopted a less harmful form of extractivism (i.e., the post-extractivist approach) and the implications of the latter remain a subject of ongoing debate.

1. Understanding Extractivism

There are a plethora of meanings, descriptions and conceptualizations of extractivism. In simple terms, extractivism can be defined as an accumulation modality based on the large-scale exploitation of natural resources for export purposes, without concern for the impacts of its practices or sustainability.[1] Others say extractivism is a set of activities to massively extract primary resources for export, which, within capitalism, becomes a fundamental element of the modality of primary-export accumulation (Acosta, 2017). As a concept, it forms a complex ensemble of self-reinforcing practices, mentalities and power differentials underwriting and rationalizing socio-ecologically destructive modes of organizing life. It does so through subjugation, violence, depletion and non-reciprocity (Chagnon et al., 2022). Extractivism has long been conceptually linked to capitalist processes and has recently been characterized as a fundamental expression of global capitalism, particularly in its manifestations across rural realities of

1 Villarreal, M. & Echart, E. (2020). Extractivism and resistance in Latin America and the Caribbean. https://www.opendemocracy.net/en/democraciaabierta/luchas-resistencias-y-alternativas-al-extractivismo-en-am%C3%A9rica-latina-y-caribe-en/

the Global South (ibid). As a process, it involves gathering natural resources and primary goods, typically through activities like mining, logging and drilling and then selling them in global markets to make a profit (Bruna, 2022). Eduardo Gudynas (2021) argues that extractivism, regardless of whether it is government- or corporate-led, is closely linked with the systematic capture or cooptation of state institutions. Extractivism encompasses economic activities characterized by the extraction of substantial amounts of natural resources, typically for the purpose of export, with minimal processing or manufacturing taking place in the country of origin (Svampa, 2019). As noted by Acosta (2017), it makes more sense to examine extractivism in relation to Gudynas' theory, as extractivism is not limited to minerals or petroleum but also includes agricultural, forest, fishing and touristic extractivism. Extractivism frequently results in ecological deterioration and societal disputes, encompassing the displacement of rural and indigenous populations (Bruna, 2022).

In terms of the historical evolution of the concept and process, there have been several types of extractivisms extrapolated. Colonial extractivism was linked to conquest and colonization, involving plunder, concentration and accumulation in European colonies resulting in modern capitalism and ideas of "development" and "sub-development". Predatory extractivism is currently the dominant form in Africa as well as in other regions of the world, with serious social, environmental, economic and political impacts (Randriamaro, 2018). In recent years, there has also been a conceptualization of "neo-extractivism". Neo-extractivism refers to an economic model centered on large-scale export of primary commodities by transnational corporations, enabled by the state through favorable laws, tax incentives, infrastructure and repression of dissent (Rodny-Gumede, 2017). The prefix "neo" alludes to the fact that extractivism will be justified in certain contexts by the need to generate the rent necessary to support poverty alleviation strategies and other social justice programs (Gudynas, 2012). The impacts of extractivism therefore vary depending on specific settings, such as authoritarian regimes or rising nations that are pursuing extractive agendas with a nationalist focus (Carameto et al., 2023).

The concept of "green extractivism" has also emerged within the broader extractivism discourse. This concept is increasingly used to describe the phenomenon whereby extraction practices are made more environmentally friendly or when green policies are employed to justify efficiency-focused extraction processes. The ultimate goal is to make resource extraction and exploitation more socially acceptable (Voskoboynik & Andreucci, 2021). Green extractivism encompasses different methods of resource extraction associated with or supported by the "green economy". This includes extracting energy from renewable sources like wind, solar, hydrological and bioenergy, as well as all the necessary extraction

activities involved in producing renewable energy, such as mining minerals and extracting hydrocarbons used in the production of wind turbines and other equipment (Bruna, 2022). The term "green extractivism" also denotes the transformation of extraction processes to be more environmentally friendly, or the utilization of green laws and discussions to justify efficiency-driven extractive practices with the ultimate goal of making resource extraction and exploitation more socially acceptable.

2. Making Sense of the Zimbabwean Context

Zimbabwe is a complex state. The country is entangled in fully-fledged authoritarianism and a politicized military. The 2023 elections were still in dispute at the time of the writing of this article – over 6 months after the elections. Whilst both the regional body, Southern African Development Community (SADC), and the European Union unequivocally declared that the elections were unfair, shrouded in lack of transparency, intimidation and other malpractices, with election regulations being ignored; the ruling party president was nonetheless declared the winner. It is not possible to decouple the state and the military, such that some scholars talk of "securocracy" in Zimbabwe — rule by the security sector. As noted by Maringira (2017), the Zimbabwean National Army (ZNA) has become heavily politicized since independence, openly supporting the ruling party, Zimbabwe African National Union – Patriotic Front (ZANU-PF), in successive elections. This has deteriorated with the current president who came to power through what the ruling party call a "military assisted transition" (to avoid calling it a coup). The military has remained politicized in and outside army barracks and it supports ZANU-PF, with economic interests of the top military brass being safeguarded in return. Chigora (2018) notes that Zimbabwe is characterized by increased levels of politically motivated violence and political corruption, and a decrease in the rule of law and transparency and accountability. Additionally, the electoral environment, over the years, has been characterized by fraud and a lack of trust in institutions running the elections.

The capture of state institutions has become the norm. The undermining of state institutions worsened from the early 2000s onward when ZANU-PF militarized the realm of politics in response to formidable challenge by the newly formed Movement for Democratic Change (MDC) opposition party (Mawowa, 2013). Key ZANU-PF political actors sought to reconfigure lines of control within state institutions. Bureaucrats were targeted with violence, threats, harassment and irregular disciplinary interventions by government officials, allied state security agencies and ruling party militants. The mining bureaucracy's professional

capacity and integrity were not spared, with key regulatory and service capacities also being effectively politicized (Dhliwayo & Chebo, 2022).

The economy has been in free-fall for decades. Zimbabwe has displayed a variety of state fragilities in the first decade of the 21st century amounting to a situation of crises characterized by economic, political and socio-cultural turmoil (Chigora, 2018). The socio-economic crises and economic collapse of the country declined further in the 2000s due to various factors such as the chaotic land redistribution exercise, leading to an increase in artisanal and small-scale gold mining as alternative means of livelihood. State elites also took advantage of mining patronage in the midst of high unemployment, poverty and deteriorating public services that continue to affect Zimbabwe (Saunders, 2017). The deteriorating macroeconomic environment erased mining gains and contributed to the scaling back of production and sharp declines, notably in the strategic gold sector (Dunlap et al., 2020). Declining investment in public mining entities and a significant weakening of bureaucratic capacity exacerbated the state's inability to manage the economic crisis. Economically, aspects of decay were noticeable, as poverty levels, inflation and the exodus of skilled labor increased, in conjunction with declining living standards which have continued to worsen (Chigora, 2018).

The lack of consistency in policy is also impacting the exploitation of minerals in Zimbabwe. Zimbabwe has a rich and illustrious history in the mining business, which can be traced back to the time before colonization (Mkodzongi & Zano, 2020). The country's mineral resource base consists of coal, chromium ore, asbestos, gold, nickel, copper, iron ore, vanadium, lithium, tin, platinum group metals, uranium and diamonds. These resources are extracted from various areas throughout the country. The government oversees all mining operations in the country through the Mines and Minerals Act (1996), which is complemented by the Environmental Management Act (2002), the Atmospheric Pollution Prevention Act (1971), the Hazardous Substances and Articles Act (1977), and the Indigenization and Economic Empowerment Act (2008). Nevertheless, there exists a discrepancy in the application of these policies throughout the country. The presence of conflicting objectives, such as the promotion of mineral-based economic growth, the enactment of indigenization laws for the purpose of achieving equity, and the pursuit of community development goals, result in gaps and conflicts in the implementation of policies.

3. The Nexus Between Climate Change and Extractivism in Zimbabwe

The extractive sector contributes to climate change in multiple ways. Mining activities are linked to greenhouse gas emissions, environmental degradation and increased vulnerability to extreme weather events. The correlation between climate change and the extractive industry in Zimbabwe is very apparent. Despite making a significant contribution to carbon emissions, which is the main cause of global warming and climate change, the extractive sector largely operates with little consideration of the climate change factor. While Zimbabwe's carbon emissions are relatively low compared to other countries, ZELA (2020) has observed that the extractive sectors contribute to climate change significantly by causing deforestation and emitting huge amounts of greenhouse gases. The exploitation of fossil fuels mainly by open cast methods significantly contributes to greenhouse gas (GHG) emissions (Mutasa, 2019). According to the United Nations Environment Programme (UNEP), in 2019, mineral resource extraction accounted for 80 percent of the decline in biodiversity and 53 percent of GHG emissions (Watson, 2020). Mining frequently occurs in regions that are already susceptible to the impacts of climate change. During the process of mineral extraction, mining corporations clear the area by destroying trees, which leads to the release of stored carbon into the atmosphere (ZELA, 2020). Land degradation around lithium and gold mining sites also reduces agro-pastoral productivity that is essential for community adaptation in the context of climate impacts (Glass, 2022). The process of mineral extraction is highly energy-intensive, relying mainly on fossil fuels like coal and diesel (Igogo et al., 2021). Deforestation diminishes the capacity of forests to absorb carbon, while simultaneously deteriorating the quality of land. This undermines the ability of small-scale farmers in Zimbabwe (who are already grappling with droughts, floods and unpredictable rainfall) to adapt to climate change (Change, Siwela and Basopo, 2023).

Zimbabwe's expanding mining and energy sectors are key drivers of environmental harm and GHG emissions, contributing to climate change (Murombo, 2019). Coal mining and thermal power plants that sustain mining operations produce emissions while also demanding vast water resources. Deforestation for infrastructure development and pollution from mining effluents further compromise ecological resilience to climate impacts. These dynamics highlight how the country's dependence on fossil fuel-based extraction deposits ecological harms and leads to climate vulnerabilities for both present and future generations.

Zimbabwe's expanding mining sector is exacerbating climate change pressures through increased emissions, ecological damage, land use changes and socioeconomic impacts that weaken adaptation capacities, which then places

issues of climate justice directly at the center of the debate—namely, geographically, socially (vis-à-vis disadvantaging marginal communities in terms of weakening livelihoods and well-being) and temporally (in terms of generational effects). Climate justice relates to concerns about the inequitable outcomes for different people and places associated with vulnerability to climate impacts. It is also linked to issues around fairness of policy and practice and responses vis-à-vis addressing climate change and its consequences (Climate Just, 2022). Climate justice is a human centered approach that seeks to attenuate the burden of climate change through equitable distribution, conservation and stewardship of natural resources. The political economy approach politicizes the field of climate justice such that climate and natural resource transfers are increasingly framed around the basis of equity and climate justice.

Related to this is a human rights-oriented approach which embodies environmental justice concerns. Climate change violates basic human rights and justice because the current consumption of fossil fuels is unjust: it generates outcomes in which people's fundamental interests are unprotected and, as such, undermines key rights (Caney, 2010). As noted by Bhatasara and Nyamwanza (2022), grassroots perspectives on climate justice are multi-layered: they illuminate more on adaptation and contemplate multiple notions of justice such as inequitable vulnerabilities, community capabilities and community sovereignty. More climate-consciousness and notions of community-based climate justice are needed for the mining industry to avoid undermining both community wellbeing and national climate targets.

4. Extractivism and Neo-Extractivism in Contested Political Spaces

We suggest that Zimbabwe is a country where crisis is not to be regarded with the context, rather crisis is a context. By this we mean that there is a certain permanence to the crisis, unlike a crisis normally conceived as an isolated period of time characterized by the shattering of lives and temporary disorder (Vigh, 2008). It is in this context that extractivism should be understood. A histography of extractivism would perhaps be informative as a starting point. Colonial extractivism morphed into neo-colonial extractivism, with a lot of colonial legacies and economic enclaves that produced wealth on one side for the few and poverty and environmental crises for the majority of Black populations. Any potential benefits from extractives are thus negated by magnanimous tax incentives to attract foreign direct investment (neo-extractivism through FDI) and weak and poorly implemented or enforced environmental laws. The ultimate winners are the extractive corporations.

4.1 A Historical Perspective

The presence of extractivism can be identified in Zimbabwe throughout the colonial period. Colonial mining entailed the exploitative practice of extracting resources mainly for the advantage of white settlers and shareholders abroad (Mawowa, 2013). The then Mines and Minerals Act, a repressive legislation, resulted in the displacement of native Zimbabweans. It also facilitated environmentally harmful mineral extraction methods without obtaining local approval or redistributing profits (Hirons, 2014). These origins gave rise to long-lasting economic and political grievances. There are policy conflicts in the period following independence concerning extractivism. Although there was an intention to address the negative effects of colonialism after the country obtained independence in 1980, many aspects of extractivism that were established during the colonial period continued (Mawowa, 2013). In the years immediately after achieving independence, minerals were nationalized in order to address previous instances of dispossession, and the revenue generated from mining taxes now supported broader development goals. Underpinning the sector was a relatively diverse infrastructure inherited from colonial and white-ruled Rhodesia's import substitution strategy. This bestowed modest capacities for beneficiation through upstream and downstream linkages and state-led training, research and support services. However, lingering elements of enclavism and heavy dependence on foreign capital remained intact. Former President Mugabe's land reform program in the 2000s, which was highly controversial, resulted in the government gaining even more control over mining activities. Arguably, Zimbabwe's current political economy, with its contradictions between nationalist state-led extraction and progressive redistributive policies, fits into the post-extractivist agenda (Hirons, 2014).

4.2 Contemporary Extractivism and its Pathologies in Zimbabwe

There are multifaceted, multilayered and intersecting pathologies that not only affect the economy in a context where brutal investors, gangsters, syndicates and the dominant elite depend primarily on extractivism but also have consequences for social costs being ignored. The climate change issue is glossed over, or noise is made by policymakers when it is convenient for them. In the case of this chapter, issues of social and climate justice are pipedreams. Greenwashing is used to justify dubious investments, for instance, in carbon sequestration projects, green fuel and energy transition. Agreeing with Acosta (2017), contemporary extractivism in a country is not limited to coal mining and mining of other minerals,

but it is now linked to lithium (or the so-called "white gold") and large-scale land grabbing. Deforestation and industrial agriculture are also considered forms of extractivism as they extract resources from the land, causing severe ecological depletion.

It can be argued that Zimbabwe's extensive mineral wealth has fueled extractivist policies in recent years. Zimbabwe is endowed with vast mineral deposits both discovered and undiscovered. Zimbabwe's post-2017 development strategy is underpinned by extractives, with a 12 billion U.S. dollar export target for the mining industry by 2023. Mining contributes around 12 to 15 percent to the gross domestic product (GDP), earns 60 percent of the country's foreign currency, attracts more than 50 percent of the foreign direct investment (FDI) into the economy and employs over 45,000 people in large scale, and more than 500,000 in small scale and artisanal sector (Chamber of Mines of Zimbabwe, 2017). In 2017, the mining sector grew by 8.5 percent underpinned by strong performance in gold (14 percent), diamond (44 percent), chrome (48 percent) and coal (16 percent). The Transitional Stabilization Policy (TSP, 2018) also alluded to mineral based growth. As such, mineral exports were responsible for 60 percent of the country's export earnings as of October 2018 and the mining sector contributing around 16 percent to the national GDP.

However, the mining industry as a whole is full of pathologies. The industry faces multiple challenges, including a lack of transparency and accountability in licensing, contract negotiation and revenue distribution; lack of public disclosure of disaggregated revenues and contracts; as well as a political patronage system in contract negotiation. Corruption, greed and a lack of transparency and accountability have taken precedence as the country's minerals continue to benefit an elite few who have powerful connections both locally and internationally (Malinga, 2018). Foreign mining houses and Black Zimbabwean male elites who reside in other countries have also been part of the plunder and corruption (Saunders 2014).

An understanding of the intersection of the reality of predatory extractivism and politics can be achieved by directing attention towards activities around essential minerals such as lithium, gold, coal and diamond. The largely coal powered energy sector also conjures various debates around what Acosta (2013) calls pathologies: climate change, gender inequality and social injustice. Zimbabwe continues to pursue a carbon or fossil fuel-based development trajectory. The Zimbabwe Energy Regulatory Authority (ZERA) highlights that Zimbabwe has coal reserves of twelve billion metric tons, which proves that the country has great potential for thermal-powered electricity. In October 2019, the country's Mines and Mining Development Minister reported that Zimbabwe traditionally produces about three million tons of coal per annum and that production was

expected to leap to 15 million tons. This serves to highlight the supremacy of mineral extractivism because the Minister's assertion comes at a time when the world is vying for green and just transitions to cleaner and sustainable renewable energy. To limit the global temperature increase to one point five degrees Celsius above pre-industrial levels in accordance with scientific research and the Paris Agreement, the world needs to decrease fossil fuel production, including coal, oil and gas, by roughly 6 percent every year (United Nations, 2021).

4.2.1 Extractivism in the Coal-Mining Industry

Zimbabwe is already a contested political and economic space. Extractivism involving coal is worsening the situation of already economically and socially marginalized communities. What is unfortunate is that communities are powerless to challenge the ruling elites and military mafias involved in the mineral deals. Predatory investors dispossess communities, expropriate land and pay no compensation because they are politically connected. A high threat of eviction means that communities in mineral corridors are kept powerless by political patronage. The Zimbabwean economy is still locked in a fossil energy age. The energy sector is highly coal dependent. Under Vision 2030, the country aims to develop a 1 billion U.S. dollar coal mining industry as part of an ambition to build a 12 billion U.S (Government of Zimbabwe 2018). dollar mining economy. Several foreign companies, mainly from China, are investing in coal-mining in Hwange to boost the country's electricity supplies. Neo-extractivism fueled by these foreign companies has seen them building new coal infrastructure in the country. Zimbabwe Zhongxin Electrical Energy (ZZEE) company, a joint venture with the Zimbabwe Defence Forces, is building a 50-megawatt power plant with plans to expand that to 430 megawatts. Dinson Colliery, the coal-mining subsidiary of steelmaker Tsingshan Holding Group, is building a 300 million U.S. dollar coking plant, also reinforcing the transnational nature of extractivism in contemporary societies. These highly transnationalized arrangements have given rise to an extremely complex process: the "deterritorialization" of the state—state takes a relatively hands-off attitude to the oil or mining enclaves, leaving the responsibility to the mining companies (Acosta, 2013).

The extraction of coal and its uses have conjured debates around sustainability and climate justice in coal-mining communities. Coal mining exposes Zimbabwe's extractivist development model with coal extraction rapidly expanding in Hwange and new projects such as the Sengwa power plant in Gokwe. Africa Coal Network[2], an environmental advocacy group, says coal increases not only

2 https://www.newsday.co.zw/news/article/32051/defying-global-trends-zimbabwe-bets-on-coal

pollution but also wildlife conflict and land degradation—coal mining in parks, for example, has agitated elephants, causing them to attack locals. The impacts, however, go beyond wildlife and forest. At the core are injustices suffered by various communities and social groups. The 'coal rush' generated by the declaration by government to expand on coal projects has the potential to augment deep rooted problems that women, for instance, in coal mining communities have experienced.

It has been reported that in Hwange Rural District Council, hundreds of families in Dinde communal lands are on the verge of displacement after the Hwange Rural District council decided that the rural settlement area would be cleared to make way for a foreign-owned start-up that was granted a license to open a coal mine in their village. The Dinde community, made up of around 700 households in Zimbabwe's politically and ethnically marginalized Matabeleland North Province, was told in 2020 that the Chinese mining Beifa Investments was beginning coal exploration in the area (Ufumeli, 2021). In May 2021, the Zimbabwean media reported that 480 households in the village of Ingagula, 100 meters away from the new project planned in Hwange, would be displaced to make way for a 310-kilometer transmission line that is part of the project. These are only a few cases among many occurring in the country where mostly women and children bear the brunt of displacements.

Climate justice is on the periphery of both state extractivism and neo-extractivism. There have been widespread consequences of the use of coal: on a localized scale, there have been reports of health incidents, and on a larger scale, many locals have had to navigate water and air pollution, conflicts with wildlife and general environmental damage subsequent to the mineral extraction spanning decades in Hwange (Njavaya, 2022).[3] In Hwange, a political and economic battlefield, coal mining activities have reportedly polluted the Dheka River, killing hundreds of fish and livestock. The Environmental Impact Assessment Report of Hwange carried out by the Center for Natural Resources Governance (CNRG, 2017) cites a number of environmental and social challenges affecting communities. Socially, these include: the rising of ashes from the power generating plant affecting the residents of Ingagula township, most of whom are now suffering from black lung disease; women and children affected by a dense coat of coal dust, the heaviness of which hardens the lungs, exacerbating the risks of cardiopulmonary and respiratory diseases; contaminated drinking water hence increasing the gender burdens on women who are responsible for domestic water issues in a patriarchal context where women do domestic work. In terms of environmental impact, min-

3 Njavaya, K. (2022). Rapid coal mining sabotages Zimbabwe's energy transition plans. https://energytransition.org/2022/01/rapid-coal-mining-sabotages-zimbabwes-energy-transition-plans

ing practices also mean there is coal dust covering the town of Hwange, allegedly ruining vegetation; acid mine drainage produced by the leaching of sulfide minerals present in the coal is having a direct impact on the quality of drinking water and aquatic life; the erosion of stockpiles at Chilota mine has also led to sedimentation at the nearby Dheka river and wetlands have been destroyed by polluted aquifers from increased salt load and metals. All these aspects negate the notion of climate justice.

4.2.2 The Lithium Mining Space

At a global level Zimbabwe ranks high amongst the leading lithium producing and supply countries; with some of the largest lithium reserves and mines in Africa. The exponential global demand for lithium is being driven by the rising production of electric vehicles and other electronics – seen as essential for energy transition based on zero carbon emission (Zimbabwe Environmental Law Association (ZELA), 2023a). This has led to significant extraction initiatives in the country (Sitando, 2012). Lithium has been poised as a clean mineral that has potential for the country to realize its Long-Term Low Greenhouse Gas Emission Development Strategy (2020–2050) (Government of Zimbabwe, 2020). Should Zimbabwe take advantage of its huge resource wealth to develop communities and the economy through transparent, accountable and responsible investment decisions, the country stands a better chance of escaping years of isolation, political tensions and economic turmoil.

According to the ZELA (2023b), Chinese-owned companies like Arcadia Lithium Project (acquired by Zhejiang Huayou Cobalt) and Bikita Lithium Mine (acquired by Sinomine Resource Group) have the biggest portfolio of lithium mining projects in Zimbabwe. Besides acquisitions, Chinese investors Eagle Canyon International Group Holding Limited and Pacific Goal Investments made a deal of 13 billion U.S. dollar with the Zimbabwean government for the construction of a "mine to energy industrial park" to produce lithium-ion batteries. In March 2023, China Natural Resources bought US-based Williams Minerals (Pvt) Ltd which owns lithium mining rights in Zimbabwe. It has also been revealed that the Zimbabwe Defence Industry (ZDI) was granted an export license following a statutory instrument (Kairiza and Makichi 2023). Many analysts have raised questions regarding circumstances under which ZDI was granted a permit and whether it is exporting for testing purposes since it is argued lithium is essential within the defense industry.

With foreign company driven neo-extractivism playing a dominant role in controlling lithium corridors, people in rural areas are confronted with the risk of being forcibly relocated without their agreement or receiving adequate com-

pensation for their land. Greenwashing, corruption and dispossession of local communities all form part of the lithium discourse. Whilst investments from foreign companies are important, the Zimbabwean government should attend to some of the governance factors that hinder the country's economic growth and accrual of benefits to local communities, such as poor safety standards, unsafe working condition, unfair displacement measures, environmental damage and low wages for workers.[4] To use Acosta's terminology once more, there is a multiplicity of pathologies. It is still not clear whether the benefits from lithium mining will trickle down to local and provincial authorities as part of the 5 percent of nationally generated revenue to be disbursed to provincial and local authorities each year by the government (ZELA, 2023b). Key questions have been raised on how the country's domestic resource mobilization efforts in terms of tax collection will improve people's livelihoods, in particular those communities hosting lithium mining activities. In Mberengwa, for instance, the government cut off a critical source of employment and income for many small-scale miners by banning small-scale mining and promoting neo-extractivists. The climate and environmental costs are also huge. Lithium could be useful in responding to climate change but if not well managed it will lead to devastating environmental impacts and degradation. ZELA (2023b) reported that an increase in lithium production requires clearing land, moving huge rocks, while the extraction process also involves consuming millions of gallons of water. It also destroys ecosystems, threaten agricultural livelihoods and disrupts nearby communities.

4.2.3 Community Share Arrangements

The previous president, Robert Mugabe, tried to pacify local communities affected by mining. As noted by Muchadenyika (2015) in accordance with General Notice 114 of 2011, the Government of Zimbabwe requires mining corporations to allocate a minimum of 10 percent of shares to local communities through the Community Share Ownership Trusts (CSOTs). Community Share Ownership Trusts primarily serve as the driving force behind development initiatives in mining-impacted communities. This action is carried out in accordance with the Indigenization and Economic Empowerment Act (2008), which mandates mining corporations to transfer 51 percent of their ownership to native Zimbabweans

4 Zimbabwe Environmental Lawyers Association. (2023). Chinese dominance in Zimbabwe's lithium mines: Potential risks, vulnerabilities and opportunities in the critical minerals sector. International Peace Information Service Brief, Summer 2023. https://ipisresearch.be/weekly-briefing/chinese-dominance-in-zimbabwes-lithium-mines-potential-risks-vulnerabilities-and-opportunities-in-the-critical-minerals-sector

(Muchadenyika, 2015). Nevertheless, critics have argued that the indigenization project lacks transformative impact. They argue that rather than generating wealth, it replaces foreign ownership with a select few local individuals with political connections. Some scholars have contended that Zimbabwe's economic and political systems mirror colonial extractivist processes, meaning they primarily benefit the ruling and political elite while disregarding the welfare of the local masses (Acemoglu & Robinson, 2013; Saunders, 2008). It appears the country's Indigenous and Economic Empowerment Act has failed to encourage "investment and innovation" because investors are cautious about the possibility of exploitation and control by powerful political figures if their investments become profitable.

Evidently, there is greenwashing. Across the world, private investors, governments, non-governmental organizations (NGOs) and businesses are increasingly purchasing carbon credits from REDD+[5] and other offsets projects to negate their own emissions – but this increased interest from international carbon markets comes with risks.[6] Carbon trading has also become highly politicized and contested, making the whole notion of climate justice an illusion. The Zimbabwean government has drawn up a carbon trading framework that shares similarities with those pushing for reduction in carbon emissions. However, this has come under scrutiny. Around October 2023, the government of Zimbabwe revised the carbon credit policy to allow the government to take 30 percent of the profits which it will share with the communities, while investors take 70 percent for the first ten years of the project. Still, this favors transnational corporations who have been accused of green piracy. On 29 September 2023, Zimbabwe granted a United Arab Emirates (UAE) based firm conservation rights over 7.5 million hectares of its forests – about 20 percent of the country's landmass. Under the deal, touted to be worth 1.5 billion U.S. dollars, Blue Carbon General Trading will run forest preservation projects that will generate carbon credits to be sold on the global market.

Nonetheless, a growing number of experts are increasingly skeptical that carbon offsetting schemes will benefit the climate and local communities—although their potential to generate profits for investors are less in doubt. Analysts also

5 'REDD' stands for 'Reducing emissions from deforestation and forest degradation in developing countries'. The '+' stands for additional forest-related activities that protect the climate, namely sustainable management of forests and the conservation and enhancement of forest carbon stocks (UNFCCC, n.d). It is a voluntary climate change mitigation framework developed by the United Nations Framework Convention on Climate Change

6 Gordon, O. (2022). The interwoven fortunes of carbon markets and indigenous communities. https://www.energymonitor.ai/carbon-markets/the-interwoven-fortunes-of-carbon-markets-and-indigenous-communities/?cf-view

point out that carbon offsetting is an industry – emphasizing that it is not primarily about conservation and indigenous people. It is about extracting wealth from the environment. It is part of the false solutions perpetrated by the global corporations to further endorse fossil fuel and other extractives. For instance, a recent investigation into Zimbabwe's Kariba mega-project – one of the largest carbon offsetting schemes in the world – found that the company behind it, South Pole, could not be sure that tens of millions of dollars intended for local communities had ever reached them.[7]

As a form of green extractivism, carbon trading has also been linked to land grabbing (also termed green grabbing). The most important carbon sinks identified in the country are on land inhabited by indigenous communities. Hence, carbon markets have come under criticism for encroaching on the lands of indigenous and local communities thereby undermining local perspectives of climate justice. A recent report by researchers from the Rights and Resources Initiative (RRI) at McGill University found that many of the carbon sinks targeted by offsetting schemes are located in places where indigenous or local rights have not been secured.[8] From a legal perspective, Zimbabwe currently does not have a comprehensive legislative framework on carbon trading, except for the sparse mention of carbon credit financing in the Electricity Regulations of the 2019 Statutory Instrument 235 of 2019 (ZELA, 2023). Therefore, coupling carbon trading and climate justice in Zimbabwe are simply unimaginable.

5. Conclusion

Extractivism in Zimbabwe and the entire extractivist sector continue to be highly politicized – characterized by power imbalances, inequality and exploitation. Although a strong focus is lent to mining, it is not the only sector in which extractivism is taking place, but other sectors as well such as forestry and land. Extractivism in Zimbabwe needs to be understood more expansively. While mineral extractivism has been adding to the climate crisis, the use of lithium has the potential to move the country from a fossil fuel-based economy. However, the politics of elite accumulation, intertwined with neo-extractivism of insincere foreign in-

7 Zenda, C. (2023). Doubts grow over who'll benefit from UAE carbon deal for fifth of Zimbabwe. https://africanarguments.org/2023/10/doubts-rise-over-who-benefit-from-uae-firm-deal-for-a-fifth-of-zimbabwe/

8 Zenda, C. (2023). Doubts grow over who'll benefit from UAE carbon deal for fifth of Zimbabwe. https://africanarguments.org/2023/10/doubts-rise-over-who-benefit-from-uae-firm-deal-for-a-fifth-of-zimbabwe/

vestors, has so far created no gains for the country or communities. Communities where traditional coal is mined and where the new lithium reserves have been found are not benefiting anything, making the whole notion of climate justice elusive. The country has also not adopted the Extractive Industries Transparency Initiative (EITI) even though interest has been shown which is very important if justice is to be enhanced in the extractive industries sector. An analysis of the Zimbabwean context exposes the nexus between climate change and extractivism, state extractivism and transnational led neo-extractivism in contested political spaces, and proves that climate justice remains an illusion for local communities in these spaces. Green transition and green extractivism is still a political rhetoric, whilst violent and predatory extractivism persists.

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Environmental Racism in Colonial Continuity: Extractivism, Socioecological Crisis and the Mapuche Struggle in Southern Chile

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Abstract

In recent decades, extractivist industries in Chile have expanded significantly. One of these activities is industrial forestry, which is oriented towards the export of large quantities of pulp and is now one of the country's most important economic sectors. However, its extremely extensive monocultures of pine and eucalyptus plantations in the central south of Chile are associated with widespread social exclusion and ecological destruction. But forestry is not the only source of conflict. In recent decades, Indigenous territory has been revalued for its potential to produce non-conventional renewable energies, which has meant the deployment of numerous hydroelectric, wind and photovoltaic projects that have opened up a new field of conflict. This is especially true in the former territory of the indigenous Mapuche. Their mode of production and living is particularly affected by the destruction of the ecosystems by forest plantations and energy projects. Our contribution shows, first, that especially in the context of progressive climate change, these industrial activities in the central south of Chile lead to considerable ecological destruction and social exclusion. Second, we demonstrate how this primarily affects the indigenous Mapuche and, third, how this can be understood as "environmental racism in colonial continuity". Finally, our contribution will deal with the question of how the situation in Chile is currently being managed politically and how this is to be assessed.

Keywords: colonialism; environmental racism; extractivism; socio-ecological conflict; Indigeneity

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The geographic expansion of capitalism since the beginning of the twenty-first century has had multiple impacts on Latin American societies. On the one hand, in Latin America the processes of capitalist expansion in the form of extractivist industries have progressed rapidly. On the other hand, global geopolitics has become more dynamic and complex as political institutions and regimes have also strengthened socioecological struggles from below, which are fighting against extractivism, for social rights and for the preservation of ecosystems. In this context, Indigenous and peasant communities' struggles for territorial self-determination have seen a revival (Svampa, 2013). In recent years, these contradictions and conflicts have increased as a result of climate change.

In the case of Chile, its global insertion into renewed value chains, linked to the export of commodities and the import of technology, has deepened its dependence on the dominant countries of the world economy. This has been more notorious since the neoliberal policies introduced in the dictatorship period (1973–1990). In 2022, more than 88 percent of exports were raw materials (CEPAL, 2023, p. 43). Mineral extraction, salmon farming, large-scale agriculture and forestry plantations have fueled and deepened territorial and environmental conflicts (Temper et al., 2018; Schmalz et al., 2023). This new landscape tends to be associated with what is defined in the literature as extractivism, that is, a model of economic growth based on the primarization of exports, which currently includes state participation for partially distributive purposes (Gudynas, 2013).

The extractivist model sets in motion a series of environmental and social consequences for communities, especially Indigenous peoples (Alister et al., 2021), which are associated with the occupation, exploitation and modeling of the territory according to the needs of accumulation. The location of these settlements tends to go hand in hand with the concentration of land ownership, environmental deregulation, state facilities and incentives, as well as a lack of protection for Indigenous peoples, due to the lack of protection procedures and legal guarantees, as well as the impoverishment of these communities.

In this chapter, we are concerned with a series of consequences of extractivism in the Araucanía Region in south central Chile, where several investment projects are specifically affecting the living conditions of Mapuche communities. We offer a definition and problematization of the theory of environmental racism, before we address two examples that present some of the features of typical territorial conflicts, as well as the different actors, mobilizations and protests that have emerged. Finally, we present a reflection on the relevance of environmental racism and the mechanisms of its national and international regulation.

1. Environmental Racism Theory

We are living in a time when the negative human impact on ecological cycles, natural habitats and the climate is undisputed. We find ourselves in times of man-made ecological crisis, often called the "Anthropocene". The discourses around the Anthropocene, especially those from the Global North, present the current crisis as a problem of humanity to which we have all contributed, ignoring both the disparities in responsibility for this crisis and the unequal distribution of its costs. Social scientists such as Andreas Malm and Alf Hornborg (2014) and Jason Moore (2022) therefore criticize this view and point out that only a small percentage of the world's population is actually responsible for and benefits from the conditions that produced the climate crisis. While these critiques foreground the inequalities between rich and poor, as well as between "developed" and "developing" countries, Laura Pulido (2018) has identified a persisting gap in the debate with regards to racialized inequalities, "as if the geography of wealth and power was somehow nonracial" (Pulido, 2018, p. 116). She argues that the Anthropocene and, therefore, climate change must be understood as a racial process. "Certainly it is not solely a racial process—that would be a gross overstatement—but it has played an important role in both producing it and in determining who lives and dies" (p. 117). Disproportionate racialized vulnerability can particularly be seen in Indigenous communities, which are increasingly referred to as "frontline communities". Since these communities usually live in particular rural territories to which they have a close cultural connection, their livelihoods and ways of living are particularly vulnerable to climate change, including species loss and changes in ecosystems, flooding, and drought (p. 119).

The focus of environmental racism research is, therefore, to trace "the disproportionate exposure of nonwhites to pollution" (Pulido, 1996). The concept of environmental racism emerged hand in hand with that of environmental justice. The use of both terms in the academic field goes back to research by Robert Bullard on communities living near "locally unwanted land uses", in which he found that "race" is the most significant variable correlating with the location of commercial hazardous waste facilities, even more than socioeconomic class (Bullard, 1990). The study was the first to clearly demonstrate environmental racism in the USA. In his book, he also points to an existing grassroots movement against racialized unequal environmental impact that has gone largely unnoticed by mainstream environmentalism: the environmental justice movement, initiated primarily by Black people to fight back against these injustices. In recent decades, research into the so-called "environmentalism of the poor" (Martinez-Alier, 2002) and the "environmental justice movements" has gained considerable importance. Major research projects such as EnvJustice have, among other things, mapped existing

environmental justice conflicts and identify the central place of Indigenous peoples as both disproportionately impacted by, and disproportionately resisting, environmental destruction around the world (Martinez-Alier et al., 2016, p. 4). In the case of socio-ecological conflicts, there is a high occurrence of cases involving Indigenous and traditional communities, and ethnically discriminated groups, who together represent over one third of all the documented cases (ibid.). The Ej-Atlas has detected that in South America, Indigenous communities are affected in 345 of the 626 environmental conflicts registered.[1]

Bullard describes this geographic inequity in terms of the socio-spatial patterns according to which low-income and nonwhite communities are excessively burdened by various forms of pollution and hazards (Bullard, 1994). Researchers from various disciplines in Chile have discovered the same phenomenon for Indigenous groups and, in particular, for the Mapuche in Chile (Meza-Lopehandía, 2007; Castillo, 2018; Millaleo Hernández, 2019). According to these authors, the Mapuche are particularly affected by environmental degradation, and by the presence of extractivist industries and energy projects on their territories. This situation has promoted the question within Mapuche communities if the location policies of these projects must be considered as racially motivated decisions on the part of the state, a strategy of environmental racism in Mapuche territory (Meza-Lopehandia, 2007).

At the same time, the environmental struggles of the Mapuche people have stood out as an example of Indigenous demands for environmental justice in the face of diverse situations of environmental racism (Millaleo Hernández, 2019, p. 275). There are also peculiarities in Mapuche modes of resistance that can be explained by their colonial past. Just like the researchers at EnvJustice who describe how "Indigenous peoples will often appeal to their territorial rights, or special protections such as the Right to Free Prior and Informed Consent afforded to them through ILO 169" (Martinez-Alier, 2016, p. 5), they detected peculiarities in the resistance of the Mapuche in Chile. In contrast to the purely environmental movement, the Mapuche movements combine ecological issues with demands for the defense of the territory and the self-determination of peoples (Meza-Lopehandía, 2007), as well as the demand for the decolonization of environmental protection and conservation practices, and a critique of centralized environmental policy, which does not respect and allow ancestral authorities and forms of organization (Millaleo Hernández, 2019, p. 275).

According to Pulido (2018), the historical origins of the capitalist world system, the Anthropocene and today's racialized environmental injustice all date back to the colonization of the Americas from the fifteenth century onwards.

1 https://ejatlas.org/

She thus builds on Cedric Robinson's notion of "racial capitalism", which posits that racism has been a constituent force of capitalism from the very beginning. Following Pulidos argument, racism informs contemporary capitalism and its antecedents, including primitive accumulation: "Primitive accumulation was essential to creating the initial surplus that subsequently allowed for the development of industrial capitalism. What is important for our purposes is that protocapitalists, colonists, and Christians all drew on white supremacy as they went about the business of severing indigenous peoples from their land and labor" (p. 126). Primitive accumulation was seen by Karl Marx as an early, violent stage of dispossession that was required in order to move into higher forms of human development. Pulido argues that primitive accumulation helps explain the role of the past in producing the racial map of the Anthropocene, on the one hand, but is also relevant because it cannot be relegated to the annals of history. In referring to David Harvey's concept of accumulation by dispossession she highlights that primitive accumulation has never ended in the Global South: "These contemporary forms of accumulation are violent forms of taking, as people lose their lands, lives, and livelihoods. Both old and new forms of primitive accumulation require enabling ideologies. And though there have been important changes, racism, especially indifference, remains an important one" (p. 127).

2. The "Mapuche Case": Ecological Crisis and Territorial Conflicts

The Wallmapu, the territory of the Mapuche, once extended over the wide valleys, forested hills, large mountains, and long coasts that are now considered part of the Chilean region of La Araucanía (Millamán, 2006). The part of Wallmapu that today belongs to Chile extends for several hundred kilometers along the Pacific coast, nestled by the mountains of the Coastal Cordillera on one side, and on the other side by the high Andes mountains with their impressive snow-capped volcanoes. Before the colonial subjugation by the Spanish crown, beginning in the sixteenth century, around one million Mapuche lived here (Silva, 1995, p. 31). The name "Mapuche" translates as "the people of the earth". They were not only the largest, but also the most defensive among the Indigenous peoples of Chile. United by little more than a common language, Mapuche subgroups were constantly at war with each other (ibid., p. 31).

At the same time, the Mapuche were united by the fight against the external enemy, which for a long time threatened to conquer Wallmapu. The extremely bloody battles against the Spanish, which penetrated far into Mapuche land in the course of the sixteenth century, led to many victims on both sides. In the end, the wars with Spain left dramatic marks on the Mapuche. After these military con-

flicts, their number had fallen to around 25 percent of their original population size (Silva, 1995, p. 76). After a period of ceasefire, military attempts to conquer Wallmapu began again as a result of Chilean independence at the beginning of the nineteenth century. From 1880 to 1883, the Chilean military conducted the "Campaña por la ocupación de la Cordillera" (Campaign for the Occupation of the Cordillera) (Ojeda, 2021, p. 277). It was part of the large-scale "pacificación de la Araucanía" (the so-called "pacification" of the Araucanía), which ended in a victory for the Chilean military over the Mapuche in 1883.

With the end of the military conflict, a large wave of expropriation of the Mapuche from their lands in the central south began. Thus, long after the Spanish conquest, a process of "internal colonization" started (González, 2006; Pineda, 2014, p. 106–107). The Mapuche were settled in "reducciones", that is, small areas with comparatively low agricultural productivity, in which they were supposed to live and work and to which they were given legal titles—the so-called "título de la merced". This meant reducing the Mapuche to small plots of land on which they produced collectively. In today's province Arauco, for example, the areas of these *reducciones* only amounted to between 1.4 and 1.7 percent of the region's total area. The situation was similar in most other regions. Only in Cautín, in southern Araucanía, was the number significantly higher, at around 18 percent (Mariman, 2017, p. 260; Correa, 2021, p. 169).

"Primitive accumulation" in Wallmapu continued to progress in the twentieth century. After the so-called "pacification" of the Araucanía, the construction of a train route and huge mills, and the burning of a large part of the forests, the region developed into the breadbasket of Chilean society (Otero, 2006, p. 89; Garín et al., 2011, p. 75). However, it was not until the military dictatorship under Augusto Pinochet (1973–1990) that a completely new quality of land grabs was imposed on Chile's Indigenous peoples. The dictatorship introduced policies that allowed the concentration of land, especially by forestry companies (CMPC and Forestal Arauco) and the legal division of communitarian property (Canales, 2020). This impulse was accompanied by a lack of concern for environmental risk and impacts (Román & Barton, 2017). Furthermore, an agrarian counter-reform affected agricultural activities and weakened small peasant and Indigenous production (Almonacid, 2016; Bengoa, 2017). The dictatorship's policies aimed at actively undermining the Mapuche's communal mode of production and living (Kaltmeier, 2004, p. 152; Höhl, 2022, pp. 133–134). Laws 2,568 and 2,750, enacted in 1979, involved the dismemberment of the *reducciones* into individual landholdings. By 1990, 2,000 *reducciones* had been divided under these laws, and around 72,000 individual property titles were granted over an estimated 463,000 hectares of land, which has on average resulted in a land size of between only

five and six hectares per family (Kaltmeier, 2004, p. 152; Henríquez, 2013, pp. 151; Höhl, 2022, pp. 48, 130.

However, the privatization and parceling out of the Mapuches' communal land not only led to the forced privatization of land (Millaman, 2017, p. 267), but also once again to major land losses on the part of the Mapuche: firstly, Mapuche belonging to a *comunidad* who were not present at the time of the division of the territory were denied their right to a property title (Henríquez, 2013, p. 152); secondly, because the status of "Indigenous land" was abolished. This meant that land that was previously considered Indigenous and inalienable now often fell into the hands of private profiteers, and illegally appropriated Indigenous land was now given legal status in many cases (Kaltmeier, 2004, p. 152; Henriquez, 2013, p. 151). In addition, Indigenous land was fraudulently appropriated through 99-year leases or debt arrangements (Bengoa, 2004, pp. 428–433). The counter-agrarian reform carried out under Pinochet led to drastic losses of Mapuche land. While land was previously redistributed to the Mapuche under the socialist government of Salvador Allende (1970–1973), the military government now tried to reverse these redistributions.

While in 1973 the Mapuche still owned around 500,000 hectares of land, in 1990 this was only around 300,000 (Kaltmeier, 2004, p. 181). A real wave of migration began. According to José Bengoa (1983, p. 153), in an extrapolated 80 percent of the Mapuche families, at least one household member temporarily migrated to the North in order to take up temporary work there. The Mapuche people were thus further proletarianized and served as an impoverished reserve army for precarious jobs. At the same time, the Mapuches' agricultural practices hardly changed even after their land was fragmented; even in the 1980s, more than 60 percent of them were still focused on subsistence production (Kaltmeier, 2004, p. 152).

Nevertheless, the change in rural modes of production and living has created a "new rurality" (Julián et al., 2022, pp. 117, particularly as a result of the expansion of industrial activities presented below, which can be described according to four main features. First, non-agricultural incomes are playing a bigger role. Second, women are increasingly taking part in monetized employment. Third, there is a growing interconnection between rural and urban zones. Fourth, labor migration is playing an increasingly important role. These processes are also part of a change brought about by the growing importance of new economic areas such as tourism, public employment programs and increasingly better infrastructure and accessibility, even in previously remote places (Julián et al., 2022, p. 118; Ojeda, 2021, pp. 280–281). All in all, these developments situated local communities within a new social context with new problems, but they also led to the formation of new collectivities and organizations that allowed for the forging of new

limits for the capitalist expansion and resistance to environmental impacts and social and racial injustices (Alister et al., 2021).

In 1997, several years after the military dictatorship, a new phase of conflict began between the Mapuche on the one hand and the Chilean state, big landowners, and big business groups of the forestry industry on the other hand (Tricot, 2009; Pairicán & Alvarez, 2011; Pineda, 2014, p. 112). In the municipality of Lumaco, a number of forestry and transport machines were burned on the morning of October 13 1997. Two comunidades subsequently occupied land and, by direct action, attempted to reclaim their territory independently. The public attention that these disputes attracted led to a general radicalization of the Mapuche movement, which in some ways continues to this day (Schmalz et al., 2023).

In order to understand the environmental racism in the traditional Mapuche territory (Wallmapu) the territorial expansion of extractivism is visualized in Graph 1. At present, the Wallmapu on the Chilean side covers four provinces in the south of the country, comprising the provinces of Arauco, Malleco, Cautín and Valdivia. Although the Mapuche people extend beyond these boundaries, this territory has the highest concentration of Mapuche Indigenous communities in the country and, as shown in Graph 1, has been under constant tension in recent decades due to the development of extractive activities, through forestry plantations and energy projects.

2.1 Forestry in Wallmapu

The military dictatorship (1973–1990) laid the foundation for today's industrial forestry in La Araucanía. The forestry industry relies on large plantations, it is concentrated in the hands of a few Chilean business families and it is based on the export of pulp (Klubock, 2014). The enormous expansion of forest plantations and their massive subsidies by the state once again increased the impoverishment of the Mapuche (Henríquez, 2013, p. 159). The forestry industry has expanded enormously in the Araucanía since the military dictatorship. This is visible primarily in the industry's expansion in terms of area. Since the late 1970s, a wave of land grabs has rolled across the Araucanía and especially the Coastal Cordillera. Agricultural and common land, native forest and pasture areas became monocultures for the forestry industry. The appropriation of land by the forestry industry continued into the 2000s and only reached its limits in the 2010s. This expansion led to the area of forest plantations in a number of municipalities exceeding 60 percent of the municipality's total area at the end of the 2000s (Garín et al., 2011, pp. 83 Henríquez, 2013, pp. 155). Since then, forestry plantations have expanded even further.

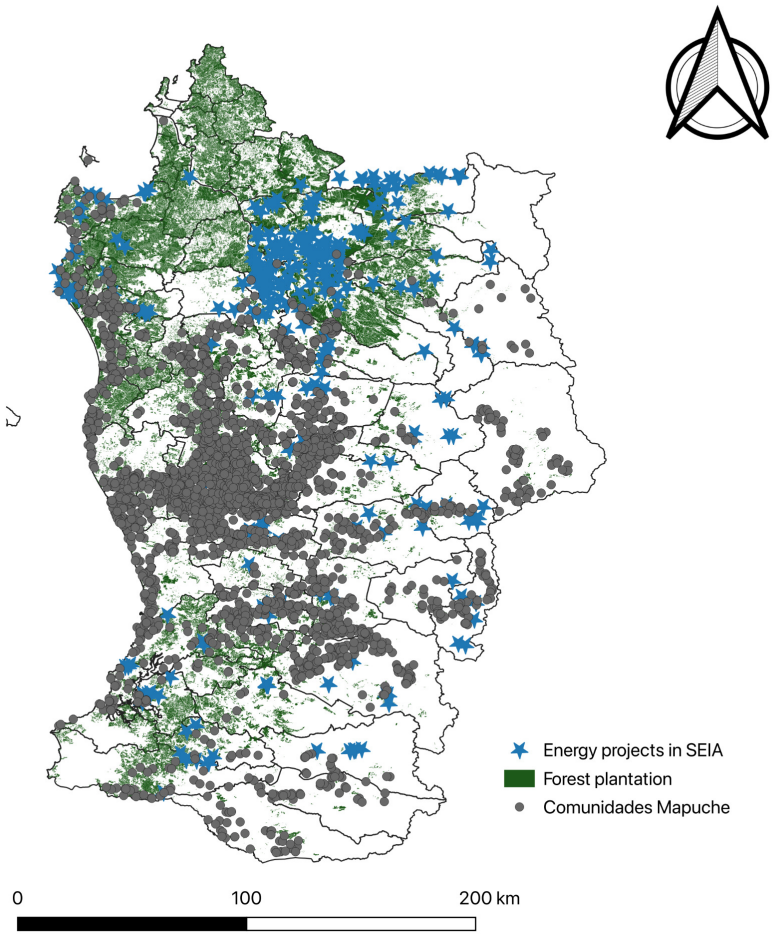

Figure 1: Distribution of Mapuche Communities, Forestry Plantations and Energy Projects in Wallmapu.
Source: own elaboration with SAG,2017; CONADI, 2023; SEIA, 2023

In today's Chile, over 2.3 million hectares are covered with forest plantations, which provide the forestry industry with its raw materials (Infor, 2021, p. 2). Almost half of the total plantation areas are concentrated in just two regions: Biobío and La Araucanía (ibid., p. 6). Because the large-scale plantations do not integrate into the local ecological cycles, but rather leach out the soil, deplete water resources, and aim for mass export without intensive further processing of the raw material, forestry is widely described in political-ecological debates as an ex-

tractivist industry (Pino & Carrasco, 2019). This expansion has been based on the marginalization and dispossession of Mapuche people. The concentration of land in the forestry industry is also particularly pronounced compared to other extractivist sectors. In some Chilean municipalities, more than half of the entire area is covered by forestry plantations that are owned by only a few companies (ibid., pp. 214–216). This economic model has had an impact on communities, especially in their conditions and possibilities of survival, economic activities and cultural well-being.

In recent years the Chilean forestry sector has accounted for around 2 percent of Chile's total economic output and over 8 percent of exports in 2019 (Infor, 2021, p. 2). The industry is essentially dominated by two Chilean companies, Forestal Arauco and CMPC/Mininco, which not only own large parts of the plantations, but also the entire pulp industry (Graf, 2019). Over 70 percent of forestry exports are in the hands of these two companies (Barton & Román, 2012, p. 873). The forestry industry today employs around 111,244 people and therefore around 1.2 percent of the Chilean workforce (Infor, 2021, p. 2). Almost 64 percent are employed in the field of forestry, which means that they work on plantations (CORMA, 2016, p. 28). Almost a third of all activities in this area are carried out by self-employed people and two thirds by dependent employees (Julián & Alister, 2018, p. 183). 27 percent are employed here informally (ibid., p. 185).

In the forestry plantations, where almost 99 percent of the activities are carried out by subcontractors, these are particularly responsible for felling and transport (CORMA, 2016, p. 29). But subcontractors and temporary workers are also often employed in sawmills and factories (ibid., p. 28). In the area of forestry in particular, workers with low qualification levels are hired (ibid., pp. 30–41). Many of the workers employed in the forestry plantations are Mapuche. This employment is often dangerous, physically demanding and extremely precarious. 30 percent of the employees in the forestry plantations in the Araucanía receive wages below the poverty line (Julián & Alister, 2018, p. 183). This means that many people have to live in extreme precarity despite being employed in the forestry sector (ibid., p. 184). Consequently, wage labor relations in the forestry industry, which are routinely temporary, often only serve to generate additional income (ibid., pp. 183–185). Low levels of union organization and insufficient power resources among employees exacerbate this problem (ibid., p. 180). However, the racialized discrimination of the Mapuche is not only and not primarily a problem of labor relations, but primarily one of the expropriations of the Mapuche from their land, the destruction of their ecosystems and, thus, of the basis of their rural production and way of life.

Rodrigo Cerda shows that the economic activities of the large forestry companies leave little wealth in the region when he points out that the GDP per

capita in the Araucanía is only 35 percent of that in the Santiago metropolitan region, and only 15.9 percent of that in the Antofagasta mining region (Cerda, 2017, pp. 409–410). While employment conditions are poor for those who get jobs in the forest plantations, unemployment and poverty are spreading among the local population around the forest plantations too. Initially, some of the local population still had hopes for the emerging forestry industry. But more and more activities in forestry plantations are being carried out by large machines. Therefore, according to scientific studies, communities around forest plantations are strikingly often among the poorest in the entire country (Andersson et al., 2016; Román & Barton, 2017, pp. 249–250; Pastén et al., 2020, p. 62).

The forestry industry not only leads to declining economic diversity and the focus of all economic activities on the forestry industry, but also to the undermining of the local economy and a sharp decline in biodiversity (Pino & Carrasco, 2019, pp. 214 Graf, 2019, pp. 7–8, 23–24). Moreover, it destroys the Mapuche people's way of life and their mode of cultural engagement with their ancestral land. The consequences of the forestry industry's activities include declining ecosystem services, falling water levels and flows, and an increase in forest fires (Latorre & Rojas, 2016, p. 84), especially in times of climate change. The dryness in and around the forest plantations is not least the result of the fact that the fast-growing pine and eucalyptus species have to be large enough to be harvested in twelve to 25 years. This requires between 20 and 40 liters of water per tree every day (Pastén et al., 2020, p. 64). Consequently, the expansion of the forestry plantation economy has enormously reduced the Mapuches' way of production and way of life and continues to undermine it. The result is intense conflicts in the central south of Chile, in which the military police are repeatedly deployed against land occupations carried out by the Mapuche *comunidades*, resulting in injuries, imprisonment and sometimes even deaths.

2.2 Hydroelectricity in the Wallmapu

During the last decades, the energy sector in Chile has increased its interest in the exploitation of water resources to generate energy. Although there have been energy projects in Indigenous territories since the second half of the twentieth century, a prominent event in this type of extractivism was the construction process of the Ralco hydroelectric power plant in Alto Biobío. This project represents a turning point in the history of socio-environmental conflicts between Indigenous communities and energy companies, mainly due to its significant impact on the Pehuenche communities where the project was developed. After ten years of legal disputes and mobilizations by the affected communities, the project was

carried out, leaving a deep mark on the relationship between these communities and the state with respect to energy projects (Relmuan, 1998). This situation has contributed greatly to the persistent distrust of Indigenous communities towards new initiatives in the energy sector and large-scale renewable energy projects.

In recent years, initiatives have been proposed for energy generation through run-of-river hydroelectric plants and wind farms in Mapuche territory. These proposals have been processed through the Chilean environmental assessment system, sometimes obtaining approval from the Chilean state, even in the face of persistent opposition from the Indigenous communities involved. Currently, the Pilmaiquén project follows a similar pattern to other energy projects in Indigenous territories. Promoted by the Norwegian company Statkraft, this project aims to be an investment in green energy and has faced fourteen years of resistance from local communities. This opposition is reflected in the words of Machi Millaray Huichalaf, a spiritual authority and environmental leader in the defense of the river: "The Pilmaiken River is the backbone of our territory, through which vital energy flows. It is like our veins, allowing circulation. If they cut off the Pilmaiken, we are immobilized. The Osorno power station is paralyzed because there was a struggle, a struggle of many years. And if the Los Lagos plant is stopped, it will be because we have regained the strength to fight again. Without the river, we are nothing" (Interferencia, 2023). The struggle for Indigenous rights has united all communities in the protection of their culturally significant sites, which are threatened by the project. This mobilization has been violently repressed by the state, demonstrating the absence of effective dialogue within the framework of Convention 169 of the International Labour Organisation (ILO).

In Chile, energy projects have been a continuous source of socio-environmental conflict in Indigenous territories. Most of the disputed projects are related to non-conventional renewable energies (NCRE) which receive support and funding from organizations and investors interested in developing sustainable projects. These projects are particularly supported within the framework of global climate policies, as seen recently in the interest of German politicians and companies in importing "green hydrogen" from Chile. To achieve this, such NCRE-projects must be further expanded. Within the country, the production of "renewable energy" primarily serves to supply electricity to the extractive industries. Many of the NCRE projects are directly linked to the energy necessity of extractive sectors like mining, industries that are drivers of climate change and ecological destruction (Valderrama et al., 2019). This situation highlights the contradiction between NCRE, climate change, sustainability-oriented investments and socio-environmental conflicts in Indigenous territories, offering a renewed perspective on extractive initiatives and the "greening" of the economies of the Global

North. In this context, so-called climate policies are challenged by Indigenous movements and environmental activists.

3. Conclusion

The history of primitive accumulation, extractivist expansion and environmental degradation in La Araucanía clearly shows that Mapuche communities carry the heavy burden of the socio-ecological consequences of global capitalism. Mapuche are socially excluded from capitalist growth and suffer from water and land loss and the destruction of their ecosystems. It is not only a question of land, but also of ecological damage, such as lack of water and soil erosion, that massively restricts the everyday life—especially important subsistence activities—of the Mapuche. Furthermore, racism against the Mapuche people continues in relevant parts of the Chilean population and institutions (Richards, 2020). At the same time, the two examples of industrial forestry and energy projects stress the high conflictuality of extractivist activities in Mapuche territory. Because of this contradiction between the local economy of needs, on the one hand, and capitalist expansion, on the other hand, we can also speak of an environmentalism of the poor (Graf, 2024). As Graph 1 shows, there are a lot of cases of this conflict, because of the high expansion of forest plantations and hydroelectric projects in Chile.

The Chilean state usually takes a clear side in favor of extractivism based on a supposed socio-technical decision. A regulatory framework which recognizes Mapuche interests does not exist. There is a long debate about the institutional implications of international agreements and consultation procedures for Indigenous peoples (ILO, p. 169). However, the limitations of regulations, oversight capacity, powers and resources available to the entities in charge of these processes lead to a situation of helplessness on the part of the community. The continuity of the constitutional framework after the failure of the constitutional plebiscite in 2022, and the lack of changes in environmental matters, mean that the situation presented remains the same and, in some cases, even worsens, since there is a state of emergency in the Araucanía region that has run from May 2022 until today.

Our article offers a reflection on the emergent and potential social, political and ecological conflicts caused by the threats of extractivism. These conflicts are currently reaching levels of international solidarity and political and social mobilization. In light of this, environmental racism invites us to consider the new colonial modifications in a long continuum of patterns of capitalist accumulation and dispossession. At the same time, it is an invitation to consider the effectiveness

and viability of dialogues between South-North and South-South in the context of climate change and the new offensive of capitalism in the twenty-first century.

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Obstruction, Denialism, and Criticism of Climate Change in Brazil

Cristiana Losekann

Abstract

Brazil's non-state debate on climate change is complex. The entry of the climate frame is relatively recent and comes into contexts in which there were already strong actors discussing environmental issues from other frames. In this sense, not all consolidated actors in the environmental movement fully adhere to this agenda. On the other hand, the strengthening of right-wing movements strongly linked to anti-scientific and anti-environmentalist perspectives constitute fronts that oppose the climate change agenda and the idea of global warming as a real environmental problem. In addition, there are traditional political forces linked to specific economic interests that, although not located in right-wing movements, create concrete obstacles to advancing environmental agendas. These different forces put tension in the debate about climate change in Brazil today and constitute significant obstacles for those who seek to produce a severe critical debate regarding which climate policies would be necessary because of the regional context. Therefore, we present three tendencies of antagonism to the climate debate: climate obstruction, climate denialism, and environmental criticism. The objective is to understand how the first two movements harm the construction of environmentalist criticism.

Keywords: climate obstruction; climate denialism; environmental criticism; anti-democratic movements; environmentalism in Brazil

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Even though the climate issue has been part of the agenda of Brazilian environmental movements since its origins, this was not the predominant agenda until a few years ago. The preliminary analytics research that I am developing[1] allows us to observe that the entry of the climate framework is relatively recent and appears in contexts where strong actors were already discussing environmental problems from diverse and competitive perspectives. In this sense, not all actors in the environmental movement have fully subscribed to the centrality of, or preference for, this agenda, as regards the various other existing environmental problems, such as pollution, biodiversity, toxic waste, the extinction of flora and fauna, etc. In their article "The climate is one of water collapse, and it is not just the climate's fault," Maia and D'Andrea (2023) point, for instance, to how problems related to the lack of water in Brazil are related to the corporate capture of this resource, mainly for agribusiness and mining, and how the debate in the public sphere ends up placing all responsibility on the climate change.

However, the country's broader political situation, characterized by the strengthening of far-right movements, culminating in the election of former President Jair Bolsonaro, brought new elements to the scene of environmental struggles. Due to its links with highly polluting and forest-destroying economic sectors, the far-right chose environmentalists as central targets to attack under its political project (Acselrad, 2020). As soon as they won the country's presidential elections, they began dismantling unprecedented environmental policies (Losekann & Paiva, 2024). Added to this, the COVID-19 pandemic gave fuel to a number of obscurantist and anti-scientific discourses, which now combine anti-vaccination arguments with varied theses, ranging from beliefs in the "flat Earth" to the denial of evidence about global warming (Miguel, 2022).

Furthermore, traditional political forces are linked to specific economic interests, which, while not involved in far-right movements, create concrete obstacles to advancing environmental agendas. If we look at the entire period governed by the Workers' Party, we can see that environmentalists protested against the process characterized as "neoextractivism," that is, the resumption of state incentives for commodity production activities: mineral and oil extraction, and agricultural production (Losekann, 2016). It is necessary to remember, therefore, that the Brazilian left too has always put up resistance to environmental agendas. Within the Lula government, we observed a growing trend in accusations of green imperialism levelled against environmentalists, with the argument that the countries

1 Our research revolves around the phenomenon of the "climatization of environmentalism" in Brazil and its consequences from the point of view of public policies and collective action dynamics. We received funding from two agencies: National Council for Scientific and Technological Development (CNPq) and Foundation for Research Support of Espírito Santo (FAPES).

of the Global North, through Environmentalist non-governmental organizations, prevent Southern countries from growing and developing economically (Miguel, 2022). It is curious to note, in other words, that this neo-developmentalist discourse converges with the opposite ideological discourse, namely, that of the extreme right today.

To analyze these dynamics in their fuller complexity, we must consider the diversity of aspects of what we call "environmentalisms" (in plural). Although it is not possible to give an exhaustive account of these in this chapter, for the purposes of my argument it is important to make at least a division between those who adhere to the climate agenda aligned with green economy solutions, generally linked to the dominant discourse emanating from international NGOs and, on the other hand, those who, even from within the field of environmentalism, view with great caution the predominance of the climate agenda. These concerns relate especially to the way in which the international climate agenda pays court to progressive political sectors and business sectors. For this latter group of environmentalisms, climate policies can have disastrous effects on the autonomy of traditional peoples and communities if they move towards the financialization of nature (Miola et al., 2022).

These different forces create tension in the current debate about climate change in Brazil. The objective of this chapter is to present the characteristics of the different aspects and actors that focus on the topic of climate change today in Brazil, seeking to understand what is at stake in each trend. In doing so, this chapter complicates the current reductionism that masks essential issues in the debate, especially once we assert the view that fighting for environmental and climate issues must go hand in hand with concerns about social justice and democracy. Therefore, I will present three trends that bring antagonism to the climate debate: obstruction of climate change, climate denial, and environmental criticism. The objective is to understand how the two first movements harm the third, namely, the construction of socio-environmentalist criticism, which can provide more promising paths to achieving environmental justice in a democratic context. Finally, we present an empirical overview of the fight against obstructionism and denialism, on one hand, and the actors of socio-environmental criticism, on the other.

1. Between Obstruction and Climate Denial

The debate on "climate obstruction", which in the past centred on the concept "climate denial" (see Forchtner et al. in this volume), is now also growing in Brazil. It is characterised by actions of groups linked to the new conservative political

groupings, but also to sectors of the radical left linked to an anti-imperialist defence of Latin America's economic development.

These ideas revolve around the denial of science, in the case of the political right, and the accusation that local environmentalists are serving the interests of the Global North, in the case of the left. Brazilian philosopher Débora Danowski points to the phenomenon of our "cognitive, psychic and political paralysis in the face of anthropogenic global warming" (Danowski, 2018, p. 4). Therefore, she advocates the use of the term "denialism".

However, as Almiron and Moreno (2022, p. 12) argue, one cannot reduce this entire phenomenon related to climate change to the term "denialism." According to the authors, using this term clouds the different reasons why "climate inaction" exists. Furthermore, by using the term "denier" with regards to the climate crisis, the false idea is created that there are only two sides: those who deny and those who do not deny the climate crisis. According to the authors, the main problem with this term is that it omits climate obstructionism that does not necessarily deny climate change. As Danowski states, "[m]any who deny climate change do so simply because they cannot bear to think about the radicality of the changes that would be necessary to face it" (Danowski, 2018, p. 20). On the other hand, in far-right groups we can see that such a tendency, far beyond skepticism, carries a "death wish and a desire for extermination" (Danowski, 2018, p. 7). Here, I take these positions to be different from each other and I assert that both are observable in the current Brazilian reality.

According to Almiron and Moreno, climate inaction takes the shape of different processes, summarized in three trends observed in the European context: delay, contrarianism (contrarianism), and climate obstructionism (Almiron & Moreno, 2022, p. 10). To analyze the Brazilian reality, I will adopt the division between denialists and obstructionists, and I will insert a set of criticisms of climate policies that get buried in the climate debate's public sphere, where they are sometimes even confused with denialism.

Obstructionism is not always on the far-right or among conservative politicians. It may also be a feature of left-wing politics and liberal movements considered enlightened or even vanguard. This reveals that it is not necessary to deny climate change in order to hinder actions aimed at combating it. Based on Danowski's (2018) explanation, this tendency can be understood as intolerant of the costs necessary to combat climate change. The manifestations of this behavior can be thought of as a rhetoric of *intransigence* (Hirschman, 1992). In the place of denial, obstacles are put in the way to make combating global warming almost impossible. In Brazil, this process has hindered environmentalism in general (Acselrad, 2018). The novelty now is in the misleading appearance that a climate policy is being pursued, while further deforestation is being encouraged.

Obstructionism can be observed, moreover, in the political-economic decisions of the current leftist government, when it decides to authorize oil extraction in the Amazon. This ideology, even though it produces environmental injustices, does not do so out of conviction, but as an inevitable consequence of economic policy. Furthermore, it is a perspective that, while it may be obstructionist, still operates within the limits of the democratic game. In other words, within the institutional design of a representative and participatory democracy. The term "climate obstruction" has been widely used to describe actions that seek to hinder or stop climate protection measures (see Forchtner et al.'s chapter in this volume). It broadly refers to campaigns and other policy actions led by well-organized and financed networks of corporate and non-corporate actors who have deliberately sought to prevent global and national action on climate change over the past four decades" (Edwards et al., 2023, p. 1). To this definition, which emerges primarily from the dynamics of the Northern hemisphere, Edwards et al. add the critical role of the political system in the markets of the Global South. This is because, in general, there is a prevalence of a rhetoric of developmentalism[2] being used to justify energy policies, such as oil extraction or the burning of coal, in the name of combatting poverty in the country (Edwards et al., 2023). Developmentalism discourses, in other words, exploits fair arguments for unjust practices, making discourse and practice dissonant.

On the other hand, developing a framework for climate denialism is something disputed and confusing within the field of the most traditional social movements and interest groups in Brazil. Gaslighting tactics[3] can be easily found in agribusiness sectors that reverse the narrative, seizing the opportunity opened by criticism of climate obstruction and accusing social movements of being denialists due to historical struggles against pesticides and genetically modified seeds, for example. For this group, nature's devastators are the very climate protectors. Among the social movements that are accused of being denialists are important organizations in Latin America, such as *Via Campesina* en América Latina y el Caribe, *Unión de Científicos Comprometidos con la Sociedad*, *Rede de Ação em Plaguicidas y Sus Alternativas para América Latina* and *Grupo Semillas*, which shows

2 A type of ideology that proposes economic development before any other issue.

3 Here we refer to the tactic of reversing the discourse of movements that question, for example, the development of pesticides and genetically modified organisms. These social movements are labeled denialists and associated with anti-science discourse, even though their slogans are not against science, but rather about its use aimed at maximizing agribusiness profits to the detriment of the practices of small farmers. In other words, a twist is made to the speech so that it "piggybacks" on criticisms of denialism.

us that the scope of this conservative movement is not only in Brazil, but across Latin America in general.[4]

Nevertheless, there is also a proudly declared denialism, strongly linked to former President Jair Bolsonaro. This thought is strongly seeded by monarchist currents, led by descendants of the Portuguese imperial family that colonized Brazil. In addition to defending the return of the monarchy in Brazil, the Plinio Corrêa Institute[5] encourages the dissemination of denialist ideas about global warming and, on numerous occasions, has used the socio-environmentalist critique to deny *any policy* to combat climate change[6].

The situation becomes even more complex, due to the tension between proponents of the more recent global climate-emergency framework, on one hand, and traditional environmentalist actors in Latin America, on the other. The tension enters the debate when it comes to constructing root explanations for climate issues and their possible solutions. Anchored in perspectives such as environmental justice and environmental racism, traditional actors on the continent are critical of the visions anchored in promises of energy transition and carbon markets, and insist that the climate debate must acknowledge the uneven distributions of the effects of climate change. The denunciation of the hegemony of the climate agenda based on market solutions (including international donors), based on the fact that it can harm the justice scenario, has been significant enough that some essential environmental problems no longer receive funding. This is the case, for example, with resources for pollution and contamination issues.

2. Socio-Environmental Criticism

The criticism I am referring to here is precisely the one that denounces the perverse co-articulation of corporate interests with the climate change discourse, a process that, contrary to seeking to care for nature, seeks to profit from this agenda. I call this trend socio-environmental criticism because, in Brazil, it is specifically groups linked to the "socio-environmentalism" of forest peoples and

4 Agrolink – Leonardo Gottems (2021, April 14). Conheça as ONGs negacionistas mais perigosas. Portal Agrolink. https://www.agrolink.com.br/noticias/conheca-as-ongs-negacionistas-mais-perigosas_448764.html

5 Created in 2006, the institute brings together defenders of the "anti-socialist, anti-communist and anti-progressive struggle in defense of the Church, Christian Civilization, and Brazil." https://www.ipco.org.br/paginas/quem-somos

6 https://www.ipco.org.br/onu-e-posta-a-prova-500-cientistas-pedem-debate-de-alto-nivel-sobre-aquecimento-global

the struggles for environmental justice who are expressing concern about this perverse alliance.

The most prominent example of socio-environmental criticism is perhaps the *Grupo Carta de Belém*[7], which has been operating since 2009, building a critical platform from which to challenge climate solutions based on the green economy. In an open letter, the group expressed dismay at *Reducing Emissions from Deforestation and Degradation* (REDD)[8], stating, "We reject market mechanisms such as instruments to reduce carbon emissions, based on the firm certainty that the market space is not capable of taking responsibility for life on the planet" (Letter from Belém, 2009). After REDD, the group also condemned REDD+ and has been acting against the "financialization of nature," stating, among other things, that initiatives based on the carbon market have been very harmful to communities of traditional people who live and depend on forests.

Contributing to this debate, Oliveira (2022, p. 28) points to the assetization of nature caused by the notions of a "green economy" (Brundtland Report, 1987) and "natural capital", which transform nature into financial assets. For the author, assetization of nature caused by the financialization of climate policies "means that a thing (tangible) or an attribute (intangible), after being subsumed by a logically peculiar economic system (capitalization), finds in the financial system (financialization) the instruments to deliver value (assetization)" (Oliveria, 2022, p. 41). Such a concept reveals a more complex and perverse process than the notion of commodification proposed by Svampa (2019) precisely because it allows us to understand the conversion into finance of the very forms of life and existence of the affected Indigenous peoples. In this sense, Oliveira's analysis shows us the centrality of public policies focused on climate and forms of governance in the assetization of natural common goods (Oliveira, 2022, p. 47).

It is at this point that we can understand how non-denial obstructionism operates, producing perverse effects as it collaborates with the assetization of nature, reducing the very existence of communities into objects of the financial market. Vecchione-Gonçalves has pointed out the perverse effects of the so-called "decarbonized bioeconomy" on Amazonian territories (Vecchione-Gonçalves, 2022, p. 86). The key issue, for the author, lies in the idea of "additionality," an inversion of the problem whereby, instead of stopping the source of the problems, more resources are sought for destruction:

"Decarbonization does not necessarily imply clean and inclusive development in medium-sized and emerging cities in the Amazon, for example, or eliminating deforestation, whether illegal or

7 https://www.cartadebelem.org.br/

8 A mechanism designed to use market and financial incentives to reduce greenhouse gas emissions from forest degradation and deforestation.

legal. The implications are far more linked to what the Amazon represents for the continuity of processes of circulation of value in the world, which, more contemporaneously, are intertwined with national and international command and control actions and policies leading to planning on and in this territory." (Vecchione-Gonçalves, 2022, p. 87)

The author shows how, through this process, Amazon communities have been hostages to projects such as Conservation Units that promise to leave the forest standing, since such projects also prevent the people who live there from maintaining their constitutive interactions with nature. The latter practices have always been of fundamental necessity, to the degree that, despite the course of the brutal history of colonization of the American continent, the Amazon rainforest remained standing. The big challenge for socio-environmentally critical groups is in presenting their perspectives without being confused with climate deniers. These groups' criticisms of current climate policies have nothing in common with the criticisms of denialists. On the contrary, climate criticism seeks to deepen the discussion about the origins of global warming, by grounding it in systemic analyses of the development of capitalism and the ways in which liberal politics, even within democratic contours, seem to resist addressing the problems of socio-environmental injustices and now climate. Furthermore, the profusion of groups with varying tendencies, as presented in the table below, brings another challenge to criticism, perhaps even more real: that of having its content silenced in the name of defending democracy, given the unabated presence of the far-right groups that recently governed the country. In other words, the idea that all criticism of the current government, and of the left in general, pushes us to the extreme right means that many important actors in socio-environmental criticism remain silent.

On the other hand, the recent advance of the extreme right in Brazil nevertheless had unexpected and positive effects. The attacks against environmentalists, the dismantling of environmental policies, and the adherence to denialism during the government of Jair Bolsonaro (2019–2022) produced a new wave of environmentalist mobilization in the country. As we will see in the next section, the new actors who enter the scene consider the counterattack against denialism as their central issue. Meanwhile, however, the debate on climate obstruction is almost non-existent in civil society, and socio-environmental criticism, while it can be observed, has remained limited to particular initiatives.

Trend of organized groups in Brazil with regard to the climate change debate	Position on climate change	Political conception
Defend actions to combat climate change via the market	The solutions lie within the market	Convergent with liberal democracy
Critically defend actions to combat climate change	The solutions do not lie in the market; it is the capitalist system that generates the problem	Convergent with a perspective of radical democracy where justice is central
Deny global warming	It is an illusory problem, and the market should not worry about it	Convergent with authoritarianism and antidemocratic populism
Do not deny global warming, but act by making measures to reduce global warming more flexible	The problem exists but actions to resolve it are often politically costly	Convergent with liberal democracy

Table 1: Summary of the trends of organized groups in Brazil with regard to the debate on climate change
Source: Own data

3. An Empirical Overview of Reactions to Obstructionism and Denialism

The reactions to these offensives of climate change denialism have been produced mainly by movements to popularize science, individual actions of scientists engaged in social networks, and journalist organizations engaged in the battle against fake news and in favor of information based on facts and scientific research. This is not a reaction that comes from social movements that are already established but mainly from new organizations that arise from the engagement of professional groups in science and journalism. Newspapers' scientific communications have published investigations that aim to clarify how denialism works and communicate information that debunks fake news.[9]

Among the journalists' organizations that stand out in Brazil, the *Instituto ClimaInfo*[10] is dedicated exclusively to publicizing the climate emergency and combating the obstruction of the climate agenda.[11] *Serrapilheira Institute*, meanwhile, was founded in 2017 and has been funding scientific research involving issues of climate change, as well as financing dissemination actions against the obstruction of scientific knowledge. Another important organization in this area is the *Cipó Institute*, founded in 2020 to mainly produce research on the climate with an

9 Jornal da USP. (2023). Dados científicos não divulgados constituem uma estratégia do negacionismo climático. https://jornal.usp.br/radio-usp/dados-cientificos-nao-divulgados-constituem-uma-estrategia-do-negacionismo-climatico/
10 https://climainfo.org.br/?s=negacionismo
11 https://serrapilheira.org/quem-somos/

emphasis on Latin American perspectives, gender, and the Global South. Such organizations have specialized in producing a repertoire of data, information, and also non-academic scientific knowledge. The actions of these organizations include technical reports, academic articles, policy briefs, mappings and questionnaires, technical notes, memoranda, field reports, media products, the creation and maintenance of databases, monitoring and assessment, geopolitical and risk analysis, training courses, in-person events and virtual debates.

Another type of action aims to influence legislative and legal debates in parliament and in the institutions of the country's justice system, drawing attention to the specificity of climate issues and the need to create normative frameworks that respond to the urgency of these problems. A legal mobilization has also been instrumental in the context of climate struggles, with emphasis on climate litigation. This has been channeled into recently established formal organizations that work exclusively on climate issues. These emerge when new actors join partnerships with traditional popular advocacy NGOs that adapt their old agendas to frame climate issues. *Laclima*, founded in 2019, stands out here for its presence across the entire Latin American continent, having already handled several significant climate litigation cases. Laclima and ClimaInfo also operate in education, developing training courses on various topics concerning the climate. This type of action constitutes the best example of what we might define as a reaction to climate obstructionism, even though they do not use that term.

In Brazil, the *Climate Observatory*, created in 2001, is the organization that today concentrates and distributes resources to climate emergency organizations and projects. Estimates of Greenhouse Gas Emissions and Removals (SEEG) is an initiative of the Climate Observatory and brings together 77 NGOs to discuss climate issues in Brazil specifically. From the point of view of socio-environmental criticism, the Climate Observatory presents an ambiguous stance, insofar as its finances encourage actions aimed at the bioeconomy and "market solutions", even though it also has investments in initiatives focused on promoting climate justice.

Collective action around climate issues in Brazil combines different forms of action, making it difficult to separate and isolate specific types. Actors who organize themselves into newer NGOs created with the climate agenda in mind are more influenced by the climate agenda as it has been constructed globally, so they tend to follow international and more planned collective action schemes. However, the region is a whole of historical actors who have indirectly discussed climate issues through their own specific agendas for a long time, such as the socio-environmentalism of the Amazonian peoples, whose emblematic figure to this day is Chico Mendes. Furthermore, historical Latin American environmentalists enter the climate agenda with many themes and repertoires of action that are not simply erased or replaced. We therefore need to look at both the campaign models

and protests that come from NGOs, and activism that combines different repertoires of action involving education, visibility, contestation of oil ventures, and contestation of government policies, among many others.

One of the most critical campaigns related to the problem of climate obstruction convergent with socio-environmental criticism is the "No More Wells" campaign led by the *Oilwatch* network and the NGO *FASE*, which involves a diverse set of actions to block the development of the oil industry around the world. In countries of the Global South, the initiatives of governments and companies to expand extractive oil activities with the justification of resolving historical economic development deficits (in comparison with Northern countries) represent one of the most critical points in obstructing the fight against climate change.

For example, the "Nenhum Poço Mais" campaign in Brazil mainly involves strengthening the anti-oil agenda in communities affected by this industry and proposing the creation of "Oil-Free Areas." One of the most notable initiatives is the training of community agents for the energy transition, in order to secure the engagement of communities and conversion to the anti-oil cause. The Oilwatch network is made up of a wide range of organizations and is present all over the world. Currently, the Latin American Network is coordinated by the Brazilian NGO FASE[12]. A 2021 Oilwatch statement declares: "The climate debate is not about CO_2 molecules. It is urgent to ensure that fossil energies remain buried forever."[13]

This campaign, therefore, is one example of an initiative that we can understand as part of climate criticism. However, the central articulation of this criticism is to be found in the Charter of Belém, which, as we have already presented, brings together several organizations, all with a long history in Brazil and strongly linked to environmental struggles in vulnerable territories, mainly in the Amazon. This initiative has an impact in national and international spaces focused on climate issues. However, the agenda is always constructed from the viewpoint of local communities affected by climate problems and policies.

4. Conclusion

This chapter aimed to analyze the debate around the climate change agenda and, specifically, attacks against it, examining the ways in which the Brazilian political situation, with the rise of the extreme right, has made it more challenging

12 https://fase.org.br/pt/

13 https://www.oilwatch.org/pt/2021/10/01/declaracao-oilwatch-latinoamerica-o-debate-do-clima-nao-e-sobre-moleculas-de-carbono/

to distinguish different environmental positions from anti-environmental positions, as well as necessary environmental criticism. The three trends presented here were identified as first, denialism, linked to far-right, anti-democratic, and anti-science groups that effectively deny global warming; second, obstructionism, identified as those who, even without denying global warming, work to make the actions necessary to combat climate change more flexible. Obstructionists draw on economic arguments and inequalities present in the Global South to justify policies that still encourage businesses with high carbon emissions. Furthermore, they justify the impossibility of more radical actions, considering the broad political alliances necessary to face the far-right in government. In this sense, they argue that it is unfeasible and risky to do without the agribusiness, energy, and mining sectors, among others, in the name of the climate agenda. Finally, as a third trend I presented the main impetus behind the socio-environmental critique of climate policies, observing how this critical perspective unmasks falsity of certain "good intentions" regarding the climate, which actually help to build a new type of market, based on the financialization of nature's assets. In the long term, this does nothing to reduce global warming and also generates a lot of environmental and climate injustice.

The main challenge for civil society organizations is to build discourses and forms of struggle that, while opposing denialism, are not silent on obstructionist actions from sectors often considered allies. Therefore, to defend democracy without sacrificing criticism will require that these actors incorporate the democratic agenda into debates on socio-environmental and climate justice.

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How Green and Just? Transition to Renewable Energy in Turkey

Hayriye Özen

Abstract

This study examines the transition to renewable energy in Turkey under the AKP government. It seeks to explore from a political ecology perspective to what extent this transition was just and green. Taking into account the broader political economic structure and associated power relations, it demonstrates that the main driving force behind this transition is not green energy production, but to open new natural resources and areas to capital accumulation within the framework of the AKP government's recently formulated economic policies. The study also shows how mainstream green discourse serves the AKP in legitimizing the opening up of new elements of nature to an exploitative form of renewable energy development that is neither fair nor green. Analysis of the Turkish case thus shows how new environmental and social crises could arise from the "green" transition advocated by the mainstream green discourse.

Keywords: energy transition; renewable energy; Turkey; AKP; green discourse

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The idea of using renewable energy sources has gained traction in recent years with attempts to incorporate green ideas into the capitalist framework in response to energy, climate, and financial crises (McCarthy, 2015; Wanner, 2019; Fairhead et al., 2012; Corson et al., 2015; Dunlap, 2023). Many countries have turned to pursuing the transition to renewable energy, since it has been presented in the mainstream "green" discourse as critical to tackling energy security and environmental issues and boosting economic growth. The different green programs and proposals comprising this discourse, such as green economy, green growth, green new deal, and so on, have been actively encouraged by actors such as the EU, the UN and the World Bank. However, as recently highlighted by political ecology scholars, the transition to renewable energy may not be as clean and beneficial to everyone as portrayed in mainstream green discourse (Avila-Calero, 2017; Avila, 2018; Del Bene et al., 2018; Siamanta & Dunlap, 2019; Sovacool, 2021; Bedi, 2022; Knuth et al., 2022; Frantal et al., 2023). This transition, rather, is often associated with uneven power relations and, as such, produces new environmental problems and injustices, and deepens existing class-based, gender, and racial inequalities, especially in rural areas (Ryan, 2014; McCarthy, 2015; Lennon, 2017; McCarthy & Thatcher, 2019; Mulvaney, 2019; Bedi, 2022). It is important to show how these injustices and inequalities are produced in different regions so that such an important step as renewable energy is not wasted on the economic or political interests of certain groups. Based on these concerns, this article examines the transition to renewable energy in Turkey under the AKP (Adalet ve Kalkınma Partisi, or "Justice and Development Party") government.

The last two decades have seen an increasing intensification of renewable energy development efforts in Turkey, leading to a significant increase in the share of renewable energy in installed capacity.[1] As the regulatory framework was shaped, and the financial incentive mechanisms were established, new natural resources areas were opened up to renewable energy production, taking the form of a number of hydropower, wind, geothermal, and solar power plants in rural areas of different regions. What were the environmental and social impacts of these power plants? And did they produce clean energy as promised? This study addresses these questions by examining the pathway pursued for renewable energy development in Turkey in the last two decades, under the rule of the AKP government. From a political ecology perspective, I situate this pathway within the broader political economic structure of AKP rule, and the power relations that this structure entails. Drawing specifically on the Gramscian concept of hegemony, I situate the AKP's renewable energy discourse and related practices within the broader hegemonic politics that the AKP has formulated and reformulated

1 It increased from around 40 percent in 2002 to around 54 percent as of 2022 (CME, 2022).

under changing global and national conditions during its twenty-one-year rule over the country. Based on this framework, I show that the transition to renewable energy has been highly instrumental for the AKP government in pursuing its recently formulated economic policies, which are a blend of neoliberalism, authoritarianism, and statism, as well as its associated energy policy, both of which are predicated on the widespread use of domestic energy sources, including those derived from fossil fuels. The promotion of renewables by the mainstream green discourse articulated at the global level, I contend, provided the AKP, as regards its economic strategy, with a very valuable opportunity: to open up new elements of nature to the exploitation of capital under the guise of environmental concerns. The AKP seized this opportunity and effectively used it, despite the fact that the main driver behind the government's renewable energy policy was not that renewables were clean, but that they were "domestic" sources that could be made available to capital accumulation. By drawing on the mainstream green discourse, it allowed, almost unconditionally, the appropriation and enclosure of farmlands, forests, water resources, olive groves, and vineyards, on which the livelihoods of rural communities depend, for renewable energy development. The "green" discourse not only helped the AKP obscure its politics surrounding renewables and the resultant injustices and inequalities, but also allowed its environmentally harmful renewable policy to be cast as environmentally benign.

The empirical data of the study were drawn from three types of documents. First, state development plans (the Fifth, Sixth, Seventh, Eighth, Ninth, Tenth Development Plans), strategy plans, and policy papers, and, second, news on renewable energy appearing on the website of the state news agency (Anadolu Agency, AA) between 2014 and 2023 were used in analyzing both the historical background of renewable energy in Turkey, and the AKP's renewable energy discourse. And third, reports of various actors on the environmental and social consequences of renewable energy policy and practices were used. What follows is divided into four sections. Following a brief account of the articulation of renewable energy in the mainstream green discourse, I scrutinize the transition to renewable energy in the Turkish context. Within this framework, I first briefly focus on the historical background. Then, in the third section, I examine the development of renewable energy within the framework of the AKP's energy and renewable energy discourse, and related policy and practices. Finally, the concluding section discusses the implications of the study.

1. Renewable Energy in the Mainstream Green Discourse

Although the idea of using renewable resources for energy production has been on the agenda of many state and non-state actors since the 1970s, it has been implemented especially in the last two decades. The articulation of the mainstream green discourse has played a prominent role in this regard, and consists of those proposals and programs called green economy, green growth, or green new deal[2], by various actors including international governance bodies, governments, corporate actors, think tanks, and NGOs (GNDG, 2008; Pollin et al., 2008; Barbier, 2010; OECD, 2011; UNEP, 2011; World Bank, 2012). These green programs and proposals all present the transition to renewable energy as vital for resolving the crises acutely witnessed in the last few decades, as the contradictions of capitalism have condensed. More specifically, they underscore the necessity of the substitution of carbon-intensive energy with renewable energy for reducing environmental risks and increasing energy security, as well as creating new opportunities for capital accumulation. The transition to a low-carbon economy (GNDG, 2008; Pollin et al., 2008; Barbier, 2010) and the efficient use of so-called "natural capital", as it is called in these proposals, would reduce energy-related carbon dioxide emissions (UNEP, 2011; GNDG, 2008; Pollin et al., 2008), while at the same time providing new investment and employment opportunities. As to the problems related to energy insecurity, it is stated that the use of renewable energy would reduce the risks associated with energy shortage (GNDG, 2008), as well as those associated with the rising and volatile prices of fossil fuels (UNEP, 2011), thereby "reducing the vulnerability of the global economy to potential energy price shocks, and contributing to stable economic growth" (UNEP, 2011, p. 24).

An important point to be considered in relation to the very notion of renewable energy in this green discourse is the conflation of different forms of energy source, such as wind, solar, marine energy, biomass, hydropower, geothermal, and so on, into a single "renewable" category, and the portrayal of this category as "essentially clean". It is, for instance, stated on the website of the UN that "[r]enewable energy sources—which are available in abundance all around us, provided by the sun, wind, water, waste, and heat from the Earth—are replenished by nature and emit little to no greenhouse gases or pollutants into the air"[3]. This represen-

2 Although there are some differences between Green New Deal and green economy proposals, as well as the different variants of each (Tienhaara, 2014), they all aim to make capitalism greener to resolve the crises that it creates. What is also noteworthy about these proposals is that they all rely on the assumption that it is possible to overcome the contradictions between economic activity and environmental sustainability (Aşıcı & Bünül, 2012; Wanner, 2019).

3 https://www.un.org/en/climatechange/raising-ambition/renewable-energy.

tation of different energy sources as essentially and equally "green" ignores, on the one hand, the environmental risks, and threats that these sources may pose when, for instance, they are not used properly and, on the other, the significant differences between them in terms of their environmental impact. Despite sharing the common characteristics of renewability, by being flow and not stock resources, those energy sources such as wind, solar, water, and heat from the Earth (geothermal) have significant differences. For instance, it has been pointed out that geothermal resources, if misused, could be depleted and may cause serious harmful environmental effects, including high-level CO_2 emissions (Shortall et al., 2015; Fridriksson et al., 2017; Pan, 2019). Similarly, hydropower plants, even smaller ones, may lead to ecological disruption (Gleick, 1992). Although negative effects of wind and solar energy are relatively low, it has been noted that they are not completely clean either (Küçükali & Barış, 2009).

As it established strong connections to economic growth, and to environmental and energy-security concerns, the green discourse and its associated renewable energy frame attracted the attention of many countries. With the guidance and financial support of international organizations such as the EU, the World Bank and the European Bank for Reconstruction and Development, many countries, including Turkey, stepped into action for the development of renewable energy. In what follows, I focus on the deployment of renewable energy in the Turkish context.

2. Renewable Energy in the Turkish Context: Background

Given its traditional obsession with economic development, combined with a lack of fossil fuel sources to feed such a development, the Turkish state has always been highly concerned with the issue of energy. Energy has been conceived and constructed as vital for the survival, security, and well-being of the nation. Specifically, energy security, the heavy burden that energy imports impose on the state budget, which is seen as a significant barrier to economic development, and the external political liabilities that accompany imported energy, have become the overarching concerns in this regard (Hale, 2022). In accordance with this, as evidenced in the development plans made since the 1960s, the diversification and expansion of domestic supply sources has become a prominent issue, firmly and constantly placed at the top of the state agenda.

Renewable energy, in line with the global trend, attracted the attention of the Turkish state as alternative energy sources in the 1970s, when the energy crisis and the resulting energy shortage forced the state to reduce its dependence on imported energy. Thus, what initially pushed the Turkish state to consider renew-

able energy sources as alternative energy sources was not environmental but energy security concerns. In accordance with this, the development plans prepared in the following periods (the Fifth, the Sixth, and the Seventh Development Plans, which cover the period from 1985 to 2000) all referred to the importance of the use of renewable sources like wind, solar, and geothermal for increasing "energy security". However, interestingly, no action was taken in this regard in these years.

It was in the 2000s, when the significance of renewables was more and more pronounced at the global level, and when the EU gave Turkey candidate status, that the Turkish state began to take steps concerning both climate change and the use of renewables. Specifically, the issue of climate change was, for the first time, considered in a development plan (the Eighth Development Plan that covered the period from 2001 to 2005), and Turkey signed the United Nations Framework Convention on Climate Change (UNFCC) in 2004 (Talu, 2015). Concerning the issue of renewable energy specifically, Turkey joined the Johannesburg Renewable Energy Coalition (JREC) established at the World Summit on Sustainable Development in Johannesburg in 2002, with the aim of fulfilling commitments on renewable energy made at the summit. In the subsequent years, the programs and priorities of the AKP government, which came into power at the end of 2002, have played the most prominent role in shaping Turkey's renewable energy policy and practices.

3. Renewable Energy Under the Rule of the AKP Government

Coming into power with a project of neoliberal and Islamic conservative hegemony, the AKP consistently followed neoliberal policies during its first three terms in power (Boratav, 2023). As it was exclusionary of specific social groups, including peasants and workers, this neoliberalism was accompanied by authoritarianism.[4] However, as I go on to explain in detail, the AKP's turn towards full-blown authoritarianism began in response to the political and economic crises it faced in the early years of its second decade of rule (Altınörs & Akçay, 2022; Özen, 2020). The political crisis included the outbreak of the Gezi Park protests in 2013 and their expansion across the country, the conflict with the Gülenists, a religious community that had been the AKP's closest political ally, and the loss of votes in the 2015 general elections. The economic crisis involved a decrease in foreign capital inflows, which formed the backbone of this government's economic-policy-related

4 Although the AKP was authoritarian from the beginning, it was considered and presented by many as a democratizing force in the first years of its rule, as it expressed a populist discourse against the anti-democratic order (Özen, 2020).

electoral successes (Madra & Yılmaz, 2019; Akçay, 2021). As these crises revealed the difficulty of securing the consent of the masses to the neoliberal and Islamic conservative project, that is, the failure of the AKP's bid for ideological hegemony, the AKP increased the dose of authoritarianism by increasingly resorting to coercive mechanisms. Concerning the economic realm, this authoritarianism paved the way for increased state intervention (Öniş, 2019; Tugal, 2022), as well as increased cronyism. It also allowed the AKP government to further commodify nature and open up natural resources to the exploitation of mostly AKP-affiliated capital (Özen, 2022).

The AKP government's energy and, especially, renewable energy policies were shaped accordingly. When the AKP took over power in 2002, a new process of liberalization had already been underway in the field of energy.[5] Seizing the neoliberal moment, the AKP took advantage of this process in order to create a pro-AKP business class (Ercan & Oğuz, 2006; Buğra & Savaşkan, 2012; Özcan & Gündüz, 2015; Nar, 2015). Launching an unprecedented wave of privatizations in the energy sector during the first decade of its rule, the AKP provided new capital accumulation opportunities for those businesses affiliated with the party. The efforts to create accumulation opportunities also increasingly involved opening up natural commons, such as water resources, forests, coasts, and parks, to energy companies, at the expense of the natural environment and the local communities whose livelihoods depended on it; the issuance of laws and regulations allowing the expropriation of private lands for energy production; the loosening and ignoring of existing environmental rules and regulations; and the neglect of monitoring and control functions. It goes without saying that the increasingly authoritarian environment laid the groundwork for all of this. This environment also enabled the AKP to resort to coercive mechanisms in the face of opposition to these efforts. These practices were legitimized by the AKP, and their legitimacy accepted in the eyes of its voters, both on the basis of the importance traditionally attached to energy security and energy production for economic development, and on the basis of strong underlying nationalism, especially in the second decade of AKP rule. However, these policies and practices also created new vulnerabilities and injustices, and paved the way for an explosion of environmental protests in many different regions (Özen, 2014; Aksu et al., 2016; Knudsen, 2016; Taşdemir et al., 2021; Şahin & Ün, 2022). While many of these protests, which revealed the heavy environmental and social costs of energy policies, were totally ignored or suppressed by the government, a few of them managed to block energy projects and thus challenge the AKP's policies.

5 Turkey, as one of the first countries starting the neoliberal transition, took the first steps towards the liberalization of the energy sector in the early 1980s.

Regarding the AKP government's deployment of renewable energy, there are two qualitatively different periods. As I will show in the following sections, the relevant policies and practices in the first period, which roughly covers the first ten years of AKP rule, were mostly developed within the framework established by the EU. In the second period, which covers the years from 2013 to the present, the AKP actively sought the development of renewable energy within the framework of its own new politics. It is worth noting that the main driving force of the renewable energy policy in both periods was the creation of new capital accumulation opportunities. Although at the beginning of AKP rule, the concerns about compliance with EU principles regarding environmental standards guided the legislative changes to some extent (Atiyas et al., 2012), the real reason for the AKP's focus on renewable energy has never been environmental concerns. Rather, this government's main concern on this issue has from the outset been to open new natural areas and resources to the use of capital.

3.1 Renewable Energy Within the EU Framework (2002–2012)

During the first period of AKP rule, the government did not have a sound renewable energy policy and mostly acted either in line with EU requirements or to create new profitable investment areas. Its first step towards renewable energy was to open new hydraulic resources to the use of capital for energy production. Specifically, with the regulations introduced by the Water Use Rights Law that came into force in 2003, small streams and creeks were opened up for the construction of run-of-river type hydroelectric power plants (Uzlu et al., 2011). This was followed by the enactment of the Renewable Law in 2005 and the development of financial incentives, as well as the addition of new state guarantees in 2008 to increase investments in "mini and micro hydroelectric power plants" (Küçükali & Barış, 2009, p. 3876). Accompanied by loose environmental regulations,[6] as well as the funds provided by the World Bank and the loans provided by the Development Bank in Turkey, all of these attempts resulted in a dramatic increase in the number of small-scale hydroelectric power plants (HEPPs) and projects (Küçükali & Barış, 2009; Uzlu et al., 2011; Işlar, 2012). At the same time, however, they created new environmental injustices and, based on this, a widespread social discontent, preparing the ground for the generation of protest movements against hydropower plants in many places (Özen, 2014).

6 For instance, until mid-2008 Environmental Impact Assessment (EIA) was not mandatory for hydropower plants below 50 megawatts installed capacity (Küçükali & Barış, 2009).

As to other renewable sources like wind, solar, and geothermal, the AKP government was relatively slower during this period. This was mainly due to the lack of a sound renewable energy policy. Although it was stated in the Turkish National Program for the Adoption of the European Union Acquis, and the development plans of this period, that "renewable energies (mainly geothermal and wind) would be considered as alternative resources" (Eighth Development Plan, 2000, p. 161) and used "to the maximum extent" (Ninth Development Plan, 2006, p. 82) to ensure supply security and to minimize the dependency on energy imports, the government did not endeavor much in this regard. Therefore, in 2005 the EU urged Turkey to adopt a "reasonable and ambitious timetable" on renewables; in 2007, they called for "the adoption of ambitious targets for renewable energy"; and, in 2008, for the development of "national objectives in terms of energy efficiency and renewable energy" (EU, 2011). Due to the lack of a sound renewable policy, the plans prepared during this period did not include clear targets. For example, the National Climate Change Action Plan covering the period 2011–2023 did not include a detailed projection on renewable energy targets (Talu, 2015, p. 338). However, despite the lack of clear targets and solid plans, the government has taken measures to increase financial support to energy companies investing in renewable energy. For instance, the Renewable Law was amended in December 2010 to increase feed-in-tariff rates (CME, 2022).

3.2 "Domestic and Renewable" Energy (2013–2023)

This second decade of AKP rule has witnessed increased government interest in renewable energy. This should be viewed within the context of the changes the AKP has made in its politics in response to the political and economic challenges it has faced since 2013, as mentioned earlier. The transformation of the Gezi Park protests, from demonstrations against the demolition of a small park in İstanbul into nation-wide protests against the AKP, clearly revealed the dissatisfaction of the masses both with the neoliberal and religious politics, and with the authoritarian tendencies of this government (Özen, 2015). These protests, together with the AKP's intolerant and repressive response, posed a serious threat to the AKP's power and its long-held "conservative democratic" image. The political uncertainty created by the Gezi Park protests was further exacerbated by the conflict between the AKP and the Gülenists, which became clearly visible towards the end of 2013. This was followed by a substantial decrease in foreign capital inflows. More precisely, cheap credits were no longer available, partly because of the political uncertainties in Turkey, and partly due to the changes that took place in the international financial regime around 2013 and 2014 (Madra & Yılmaz, 2019;

Akçay, 2021; Boratav, 2023; Yeldan, 2023). It was in the context of all of this that the AKP's vote share decreased considerably in the general elections held in June 2015. In this new conjuncture marked by new challenges, the AKP reformulated its politics (Özen, 2020). The new politics characterized by the central signifiers "domestic and national" entailed, among other things, the adoption of new economic policies (Madra & Yılmaz, 2019; Altınörs & Akçay, 2022). Considering the decrease in foreign capital inflow, which had hitherto fueled economic growth in Turkey, the new policies entailed further opening up the natural and urban environment to the exploitation of capital, as detailed below. This was also the moment of increased intervention and control of the AKP over the economy (Öniş, 2019; Yağcı, 2021; Tugal 2023).

The new economic policies positioned the energy sector, along with the construction and defense sectors, as the engine of economic development (Erensü, 2018; Madra & Yılmaz, 2019). Accordingly, the themes "domestic and national" were starting to be pronounced in the energy discourse, too. In other words, "domestic" energy sources, which include renewables, coal, and nuclear power, were represented as critical for energy security and economic growth or, in the AKP framing, "national security and strong economy" (Karagöl et al., 2017). Thus, renewable sources were represented in this discursive framework as significant not because they are clean, but because they are "domestic" sources of energy. As such, they were articulated with, not against, coal. This does not mean that environmental or green themes do not feature at all in the AKP's energy discourse, but the focus remains firmly on "domestic" energy sources. For example, although it was stated in the Tenth Development Plan that renewable energy is environmentally friendly and, therefore, necessary for sustainable development, the reason given for increasing the share of renewable energy was framed in terms of coping with energy-supply security problems and the current account deficit. As stated in this plan (2013, p. 14):

> "Establishing alternative policies to reduce import dependency in energy will have positive impact [sic] on growth and current account deficit [sic]. In this context, on the supply side, increased utilization of domestic resources, especially lignite; using nuclear energy to generate electricity; and increasing the share of energy production from renewable energy resources, are deemed important".

Here, "domestic" and "renewable" were tied to one another and became the main signifier of the new energy discourse. President Recep Tayyip Erdoğan said, for instance, in his speech at the opening ceremony of the power plants: "The aim of our works, which we carry out with the principle of more domestic, more renewable, is to meet our energy needs through domestic and national means with reasonable prices in a continuous and qualified manner" (Kaplan et al., 2021).

As the importance of renewable resources increased within the framework of the AKP's new policy, planning, target-setting and strategy-development efforts also accelerated, aimed at increasing the amount of energy from renewable resources. Thus, in the National Renewable Energy Action Plan introduced in 2014, in accordance with the Renewable Energies Directive —Directive 2009/28/EC—of the European Commission (Directives, 2009), Turkey set the target of increasing the share of renewable energy in electricity generation to at least 30 percent by 2023. Moreover, the Development Plan covering the period from 2014 to 2018, which was the first plan referring to "green growth", included a "domestic resource-based energy program" and placed a special emphasis on the utilization of non-hydraulic renewable resources (Tenth Development Plan, 2014, p. 175). And a new energy policy called the "National Energy and Mining Policy" was launched in 2017 with the aim of increasing security of energy supply through the indigenization of energy (Karagöl et al., 2017). It should also be noted that, within this framework, measures have been taken to provide subsidies to all producers that use domestic resources, including coal.

3.3 Transitioning to "Clean" Energy?

It is worth noting that although the main driving force behind the AKP's move towards renewable energy was to increase the share of domestic resources in energy production and not necessarily "greening" energy production, it still tried to capitalize on the popularity and reliability of green discourse. In this respect, green themes were accentuated in connection with renewable energy. In public speeches by leading figures of the party and in reports in the pro-AKP media, renewable energy was portrayed as an important energy source, framed as "clean" or "green" (Bir, 2021; Kasap, 2022). However, the statements emphasizing that renewable energy sources are green and the importance of increasing the share of green energy were often followed by statements that contradictorily emphasized the necessity of using domestic fossil fuel resources. For instance, after stating that "the share of domestic and renewable energy in the country's installed power has reached the level of 63.7 percent", Erdoğan underlined that "the discovery of 405 billion cubic meters of natural gas in the Black Sea" would be "an important step towards energy independence" (Hamit, 2021). Likewise, while coal producers were being subsidized by the state, the Minister of Environment and Urbanization stated that they were increasing renewable energy sources throughout Turkey in order to use less fossil fuel (Bir, 2021).

Similar to the mainstream green discourse, the themes of "energy security" and "economic growth" figured prominently in the AKP's energy discourse. Given

Turkey's traditional obsessions with these two issues, this was not surprising. In fact, it was Turkey's energy security that stood out among the themes discursively deployed by the AKP in appeals for the transition to renewable energy. The so-called "National Energy and Mining Policy", which, as mentioned, aimed to reduce Turkey's energy dependency by increasing the use of domestic sources, used the slogan "Independent Energy, Strong Turkey", linking energy security to strong economic and national security (Karagöl et al., 2017). As this policy and slogan reveal, the AKP also tried to use emotional bonds of Turkish nationalism in favor of its own energy policy. Moreover, just like the green discourse, the AKP's energy discourse also placed different types of energy resources into a single "renewable" category and represented this category as inherently clean and green, ignoring both significant differences between different energy sources, and their environmental effects.

The representation of renewable energy as "essentially clean" energy sources has proven to be quite functional in many respects, both in opening up new natural resources and areas for capital accumulation, and in obscuring the environmental destruction and injustices it creates. First of all, it enabled the AKP to legitimize land grabs in the name of "clean energy" production. Private lands were easily expropriated when deemed necessary for renewable energy production, thus depriving local people of their main source of income.[7] Second, new natural resources in rural areas have been opened to energy production almost unconditionally (Özçam, 2019; TMMOB, 2021), mostly by businesses affiliated with the AKP (Yeldan, 2023). An effective and detailed planning process was not carried out on the basis of different energy sources and different areas, as documented in various reports prepared by different actors such as the Chamber of Mechanical Engineers (CME, 2020; CME, 2022), the Union of Chambers of Turkish Engineers and Architects (TMMOB, 2021), and the specialists for the Ministry of Environment and Urbanism and for the European Bank for Reconstruction and Development (CSB-EBRD, 2020). In transforming many rural areas into renewable energy geographies, the environmental and social costs of this transformation have not been considered. Different renewable energy sources were treated in the same way, ignoring the different environmental impact of these sources. As such, necessary measures were not taken, even for renewable resources with known risks, such as geothermal. Nor were there effective monitoring processes developed specifically for renewable energy production. As a result, agricultural lands, small streams, forests, olive groves and vineyards were grabbed for renewable energy, and power plants were built near settlements

7 Within the scope of Expropriation Law No. 2942, private lands can be expropriated if an agreement cannot be reached with the owner.

(Işlar, 2012; Özen, 2014; Özçam, 2019). These plants, hydroelectric power plants and geothermal plants, and to a lesser extent wind power plants, unavoidably, created a series of environmental problems. These included carbon dioxide and hydrogen sulfide emissions, pollution of water resources, drying up of olive groves and vineyards, increased humidity, and pollution of agricultural lands, in the case of geothermal plants (TMMOB, 2021; CME, 2022); changes in the morphological structures and the natural flow patterns of streams, noise, dust, increased risk of erosion, and changes in groundwater, in the case of hydropower plants (Turhan et al., 2015); and cutting down of trees, and noise pollution, in the case of wind power plants (Özçam, 2019).

Third, a support mechanism called YEKDEM (Renewable Energy Resources Support Mechanism) was created, and a high amount of feed-in tariff support was given to electricity production from renewable resources.[8] It has been pointed out that this program, which was initially intended to support the use of small-capacity but efficient resources in difficult areas, included, over time, almost all of the electricity generation facilities based on renewable resources, built by private companies (Bayrak, 2021). This high amount of government support rapidly increased companies' appetite for renewable energy and caused a boom in power plant construction after 2015. Thus, while the share of YEKDEM-supported power plants in the total installed capacity connected to renewable resources had been below 10 percent before 2015, it started to increase suddenly as of 2016, reaching 45.8 percent in 2021. Moreover, of the installed capacity of privately owned renewable-resources-based facilities, 89.2 percent of hydraulic power plants fell under the scope of YEKDEM as of the end of 2019, along with 67.4 percent of biomass power plants, 83.5 percent of geothermal power plants, 86.7 percent of wind power plants, and 98.5 percent of solar power plants (Bayrak, 2020, p. 354). In addition to providing guaranteed business opportunities through YEKDEM, the AKP government also provided support in other ways, not directly financial, that nonetheless increased the attractiveness of renewable investments for energy companies. For example, in the area of geothermal energy development, the risky and costly exploration phase was undertaken by the state institution MTA (ESMAP, 2016, p. 10).

Finally, the representation of renewable energy sources as inherently clean was instrumental in the AKP's ability to deal with local protests against renewable energy in different regions. The environmental injustices produced by renewable energy development in different regions paved the way for the emergence of widespread local mobilizations against hydroelectric, geothermal, and wind power plants. Authorities either easily ignored these protests by emphasizing the

8 YEKDEM (Renewable Energy Sources Support Mechanism) had been on the state agenda for a few years and was finally put into effect towards the end of 2013.

cleanliness of renewable energy (see, for instance, "Vali Köşger", 2020; "Aydın'da jeotermal", 2020), or suppressed them using police force (see, for instance, "Aydın'da OHAL", 2022). This use of force was often legitimized by criminalizing and stigmatizing protesters, that is, by portraying them as those who, for some dubious reason, were obstructing the production of energy that was clean, renewable, and highly important for the national interest (Özen, 2014; Özen, 2022). More importantly, the AKP used its renewable energy policy practices as proof that it is an environmentally friendly party. Environmental issues constitute one of the AKP's weak points and have been creating serious challenges for the party at least since the outbreak of the Gezi Park protests (Özen, 2020). Since then, the AKP has been trying to overcome this challenge by presenting itself as "environmentalist" (Özen, 2022). Its deployment of renewable energy proved helpful in this regard, as revealed by the following statement made by Erdoğan in his speech on World Environment Day: "We have always supported environmentally friendly approaches, pioneered the construction of more livable cities, and ensured energy diversity by prioritizing renewable energy" (Kasap, 2022).

4. Conclusion

The examination of Turkey's transition to renewable energy reveals how this transition may produce results that are different from, and even opposite to, its original aim, as expressed by environmentalists in the 1970s, that is, to prevent environmental destruction and related injustices and inequalities caused by fossil-fuel-based regimes. As I have argued in this study, the mainstream green discourse articulated and promoted by those actors such as the EU, the UN, and the World Bank plays a prominent role in this: it has provided the Turkish government with the opportunity to open up new elements of nature to the exploitation of capital under the guise of environmental concerns. As we have seen, the AKP government has exploited this opportunity to far-reaching effect: taking advantage of the clean and green image of renewable energy sources, it has transferred common resources, public lands and private lands to energy companies, many of which fall within its clientelistic network. Meanwhile, it has allowed many rural areas to be transformed into poorly planned and controlled sites of renewable energy production. In other words, the main driving force behind the transition to renewable energy in the Turkish context is not the fact that renewable energy sources are clean and, as such, a worthy alternative to fossil-fuels and carbon-intensive energy. Rather, it is the notion that they are "domestic" resources that can be opened to capital accumulation. And despite the fact that this transition has created new environmental problems and injustices, green themes have never-

theless helped legitimize the transition. Therefore, mainstream green discourse may not only help governments seeking domestic resources to open up new elements of nature to the exploitation of capital, but it may, at the same time, absolve them of their responsibility to take measures to protect the environment. Thus, as the Turkish case shows, contrary to the claims that it will help overcome the environmental crisis, the "green" transition offered up by mainstream green discourse may in fact pave the way for new environmental and social crises.

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Delay, Destruction, and Deception: The Greenwashing of the Japanese Government and Companies

Jusen Asuka

Abstract

Green washing is prevalent in Japan as enacted by the Japanese Government, fossil fuel companies and utility companies. The Japanese government plans to spend more than 150 trillion yen (approximately 1 trillion U.S. dollar) as the total climate change related investment for the next ten years. However, the governmental plan is, alongside the big utility companies, to keep the existing energy system as long as possible because big utility companies' main assets are still fossil fuel-fired power plants and nuclear power plants. So, combustion of ammonia/hydrogen with fossil fuel power plants and carbon capture, utilization and storage (CCUS) are supposed to play big roles in the governmental plan. Japan's CO_2 emission target for 2030 is not sufficient for the Paris Agreement target, and what's more is that the current governmental climate policy is not even stringent enough to meet their insufficient target. However, the government claims that Japan's target is consistent with the Paris Agreement and Japan is on track for achieving it. Automobile companies such as Toyota are lagging behind international competition's work on electric vehicles, stating that there are various ways of achieving decarbonization to justify their backwardness. This situation will negatively impact the Japanese industries as a whole.

Keywords: governmental climate policies; corporate climate policy; greenwashing; climate obstruction; climate delay

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On 30 November 2023, the World Meteorological Organization (WMO) announced that the global average temperatures in 2023 reached record highs in the history of meteorological observations (WMO, 2023). The sea surface temperatures continued to show an unprecedented rise, with the average sea temperatures in August 2023 being the highest recorded. Antarctic sea ice for that time of year shrank to its lowest levels, decreasing by 12 percent from the average.

The Japanese Meteorological Agency announced on 2 October 2023 that the average temperature in Japan for September 2023 was recorded as 2.66 degrees Celsius higher than the usual average, making it the hottest September in 125 years, since the start of recording meteorological statistics in 1898. (The highest monthly average temperatures were recorded for three months in a row from July to September 2023.)

In view of such records, UN Secretary General António Guterres said that the era of global boiling has arrived (Guterres, 2023).

This certainly signifies that decarbonization is an immediate and urgent issue in Japan as well as globally. The Net Zero by 2050 scenario of the International Energy Agency (IEA) recommended that in order to achieve the 1.5 degrees Celsius goal of the Paris Agreement, the developed countries should phase out all coal thermal power plants by 2030 and attain to completely decarbonize their electric power sector by 2035 (IEA, 2021). Yet the costs and prices of energy resources and electric power jumped up with the start of the war between Russia and Ukraine, raising anxieties among Japanese citizens about the stability of their energy supply.

In such situations, the government, power companies and other energy intensive companies in Japan are pursuing what can be called "greenwashing." There are various definitions for greenwashing (de Freitas Netto et al., 2020). In this article, greenwashing refers to the actions carried out by entities which use misleading or deceptive publicity to present an environmentally responsible public image.

To be more specific, the Japanese government itself has adopted a policy that promotes the use of hydrogen and ammonium as fuels for power generation, while maintaining coal thermal power plants. Power companies are also aiming to reduce carbon dioxide (CO_2) emissions through the use of hydrogen-ammonium mix combustion and carbon capture, utilization and storage (CCUS) technologies. Although hydrogen is important for reducing CO_2 emissions as an energy career, there are many ways of using hydrogen for decarbonization purposes and existing priorities in terms of cost-efficiency among their usages (van Renssen, 2020). It is also important to distinguish how and from what the hydrogen being used has been made.

Since the Japanese companies use so-called gray hydrogen, which is currently generated from fossil fuels, such energy and global warming policies are ignorant of the aforementioned IEA recommendations. Moreover, actual policies introduced by the Japanese government would make it extremely difficult to achieve the current target, the Nationally Determined Contributions (NDC) to reduce Greenhouse Gas (GHG) emissions (46 percent reduction from 2013 by 2030), let alone the 2 or the 1.5 degree Celsius target of the Paris Agreement. In addition, many companies are not seriously contemplating decarbonization, as they see through the passiveness of the current administration to reinforce policies that would help to attain the aforementioned reduction target as an international commitment of Japan.

Reflecting on the above, firstly, this paper will describe the state of greenwashing in Japan. Then, I will explain the insufficiencies of the Japanese government's quantified target of GHG emission reduction. In addition, I will present a closer look at the actual problems involved in the government's energy and global warming measures are introduced. I will also indicate the problems in Toyota's strategy, whose giant automobile company plays a significant role within the Japanese economy.

1. Japan Filled with Greenwashing

Many commitments to and public relations comments on environmental issues made by Japanese fossil fuel companies and power companies can be described as greenwashing. In the case of ENEOS, for example, a major petroleum company in Japan and the sixth largest in the world, which was the official "hydrogen" sponsor for the Tokyo Olympics in 2021, and advertised the "Olympics' official hydrogen" on a big billboard on the wall of a platform at the National Olympic Stadium station of subway Oedo Line. Regarding the use of "official hydrogen", the ENEOS launched its press release on December 20, 2019, stating: "About 500 vehicles used during the Olympic games will be FCV (Fuel Cell Vehicles, with zero CO_2 emissions) (ENEOS, 2019)." Although such vehicles will not emit CO_2 while driving, it is inevitable that some CO_2 will be emitted during the hydrogen production processes, if any fossil fuels are used. The ENEOS's statement indicated that "some" hydrogen produced at their Hydrogen Production Center in Fukushima (using renewable energy) are used, but the exact volume has not been stated in their press release.

Another example of greenwashing in Japan comes from INPEX, renamed in 2021 from International Petroleum Exploration Teiseki, which is setting company goals such as "net zero emissions in absolute terms by 2050 (INPEX, 2022)." How-

ever, this goal of "net zero emissions in absolute terms by 2050" does not include the Scope 3 (emissions from the use of fuels), which shares most of GHG emissions. INPEX's website claims "only Scope 1 and 2[1]" without specifying their quantities. It is the "net zero emissions by 2050" that will be remembered by anyone without a deep understanding of the Scopes.

A third example of greenwashing is the "GENESIS Matsushima Plan," a plan to refurbish the Matsushima Thermal Power Plant of J-Power (a power utility company). The plan aims to reduce CO_2 emissions through mix combustion of hydrogen, ammonium and carbon capture, utilization and storage technologies (CCUS), though the details are not given. Currently, however, most of such projects in operation use hydrogen and ammonium manufactured abroad using natural gas and lignite (lower grade coal). This means that their plan is actually a new fossil fuel development project which will not reduce CO_2 emissions substantially.

According to the International Energy Agency (IEA), to achieve the 1.5 degrees Celsius goal of the Paris Agreement, it requires developed countries to phase-out coal thermal power plants by 2030, and completely decarbonize their power sector by 2035 (IEA 2021). As described above, however, the policies and trends of the Japanese government, fossil fuel industry, and power sector totally contradict such requirements.

What Japanese civil societies, NGOs, and researchers fear the most is that the approval of a plan like "GENESIS Matsushima Plan" may lead to the application and approval of a similar plan to prolong the lives of other old coal thermal power plants. If such trends continue, then it will make it more difficult for Japan to achieve its GHG emission reduction target for 2030, which is itself insufficient for achieving the goal set by the Paris Agreement and reconfirmed by the Glasgow Climate Pact, as discussed in the later section.

The problems with hydrogen and ammonium are the methods and costs of manufacturing and transporting them (van Renssen, 2020). Presently, they are produced at high cost, using fossil fuels. Their production processes emit CO_2 and methane as by-products. Using renewables in production processes may lower CO_2 emissions, but the direct use of renewable energies to generate power is much more rational in terms of costs, energy efficiency, and CO_2 emission reduction.

In view of such situations, even European countries with a greater focus on hydrogen concentrate their attention on the use of hydrogen as an energy carrier or storing excess electric power generated by renewable energies, or for decar-

1 Scope 1 refers to direct emissions from the company's operations and Scope 2 refers to indirect energy emissions.

bonization processes that require the use of hydrogen. Moreover, most of these hydrogen uses are still in the planning stages, and it is not clear whether they will attract actual investment or not (Odenweller et al., 2022).

Assuming that the mix combustion of hydrogen and ammonium becomes possible to a certain degree, as the Japanese government and their power utility companies insist, Japan still needs to use coal and LNGs to fulfill the remaining fuel needs, allowing the continuation of massive CO_2 emissions. Thus, there is no change in Japan's inability to achieve its 2030 goal.

There are many technological challenges associated with carbon capture and storage (CCS) or carbon capture, utilization, and storage (CCUS), which is to capture CO_2 and store it in geological sequestration or make usable materials through chemical reactions. The costs are also high. The first technological challenge is that no appropriate storage place has been selected in Japan. (Depending on the location, there is a possibility of inducing an earthquake.) Just like in the case of radioactive waste treatment, planning, and/or public relations efforts are going ahead, before even deciding on how and where to store the waste.

A big problem in Japan are the massive amounts of public subsidies provided for the development of such technologies. For example, the Japanese government established the "Green Innovation Fund" in March of 2021 with a budget of two trillion Yen and decided to provide support to applicable companies for ten years.

For this fund, the government has invited public applications for projects such as technology development for carbon recycling and next generation thermal power plants, technological research and development, and demonstration of thermal power generation using ammonia mixed combustion, procuring about ten billion Yen in total for five years, plus 20 billion Yen in total for consignment projects and subsidy projects for five years (METI, 2022b). Those receiving such funds include JERA, which is the joint venture between Tokyo Electric Power Company and Chubu Electric Power Company, and the J-Power. These kind of subsidy policies have been adopted in the governmental "GX," which will be discussed in section 3 and section 4.

2. Insufficiency of the Quantified Target to Reduce GHG Emissions Set by the Japanese Government

In October 2020, the Prime Minister Yoshihide Suga announced that Japan planned to aim to be carbon neutral by 2050, that is to say, net zero GHG emissions. In April 2021, the government indicated that it would aim for a "46 percent reduction of GHG emissions by 2030 from 2013 level", as mentioned in section 1.

Considering the requirement for equity, such a target hardly conforms to the 1.5 and 2 degrees Celsius targets of the Paris Agreement. Indeed, it is almost equivalent to passing a huge burden to future generations (46 percent reduction from the 2013 level is equal to 40 percent reduction from the 1990 level). In October 2021, the Cabinet approved the decision of "the Sixth Strategic Energy Plan" that would conform to their new targets. In February 2023, another Cabinet decision was approved called "Basic Policy to implement GX (hereinafter referred to GX Basic Policy)." Furthermore, two laws with the name of GX (Green Transformation) were established in June 2023, followed by the Cabinet's decision to create "the Strategy to promote the transition of economic structures to decarbonized growth (hereinafter referred to as GX Promotion Strategy)."

These laws and Cabinet decisions were made with the aim of realizing the targets of the Sixth Strategic Energy Plan and, in that sense, these would not bring any changes to the current energy system, though they have the name of "GX." Rather, they signify that the government adopts energy and global warming policies (hereinafter referred to as governmental GX) without raising their 2030 GHG emission reduction targets.

The "Summary of supply plan for 2022" prepared by the Organization for Cross-regional Coordination of Transmission Operators, Japan (OCCTO) indicated that the energy mix of Japan in fiscal 2031 would be: coal 32 percent, LNG thermal 30 percent, petroleum thermal 2 percent, nuclear 6 percent, and renewables 29 percent. Compared with the target numbers shown in the Sixth Strategic Energy Plan, there is a huge gap, such as 19 percent to 32 percent in coal. This means that the power utility companies have given up the plan to realize power source composition set in the Sixth Strategic Energy Plan, and the government side is allowing this since they have not attempted to introduce effective reduction measures before 2030. This can be recognized as their literal abandonment of the 46 percent emission reduction target.

Nevertheless, according to the most recent IPCC Report of the Sixth Assessment Report (IPCC AR6, 2021), the world needs to reduce global CO_2 emissions by 48 percent by 2030 and 65 percent by 2035 compared to the 2019 level if global warming is to be limited to 1.5 degrees Celsius. Moreover, at the G7 Climate, Energy and Environment meeting, as well as at the G7 Summit held in April and May of 2023, ministers announced the communiques requesting each country to aim for the numbers shown in IPCC AR6 (2021).

The International Energy Agency (IEA) announced the Road Map for 2050 in September 2023, which stated that "developed countries need to reduce CO_2 emissions by 80 percent by 2035 compared to the 2022 level" (IEA, 2023a).

Therefore, there are large gaps between the three figures that the world is asking Japan to achieve in terms of the quantified GHG emission reduction targets,

the quantified GHG emission reduction target the Japanese government has officially committed to within the international community, and more realistic GHG emission reductions the Japanese government and its electric power companies are trying to deliver. That is the current situation in Japan and the world.

At COP26 in 2021, whether to phase out coal thermal or not was one of the most disputed issues. Yet, the word "coal" did not appear in the Japanese official delegation's COP26 report (Japanese Governmental Delegation, 2021). In the Glasgow Climate Pact, adopted at COP26 on 21 November 2021, there was a sentence saying, "each country is requested to review and strengthen the 2030 targets by the end of 2022". However, the previously mentioned report by the Japanese delegation did not refer to such a sentence, probably because they would not like to review or strengthen their targets. At COP28 in 2023, in a historic moment, transitioning away from fossil fuels was decided. However, in the Japanese official delegation's COP28 report, there is no mention of this (Japanese Governmental Delegation, 2023). As a government, it is irresponsible not to report such important decisions.

In addition, on 15 November 2022, at the COP27 Ministerial Meeting, Japan's then Minister of the Environment, Akihiro Nishimura, stated, "Achieving the 1.5 degrees Celsius target is important, and Japan has already developed a long-term strategy and NDC consistent with the Paris Agreement's 1.5 degrees Celsius target. We call on countries that have not yet done so, especially major economies, to further reduce their greenhouse gas emissions" (MOEJ, 2022). No government official in Japan has provided quantitative evidence for such a strategy, and as mentioned above, it is clearly incorrect. Continually asserting the wrong thing without proof, and then refusing to even adhere to these inadequate targets, is nothing more than greenwashing.

3. Policies with Problems in Prioritizing

Typical policies for disseminating renewables and energy efficiencies include the cap-and-trade type emissions trading scheme among major emitters and businesses, energy efficiency regulations, carbon taxes, and others. The Japanese governmental GX is calling for the introduction of carbon pricing. However, the policy and system being implemented under GX will contribute little in the way of attaining the required CO_2 emission reductions and will not likely lead to energy security and economic growth due to its very slow introduction and low carbon prices.

In the following paragraphs, I will describe the major problems of the GX system of the Japanese government, with a focus on four factors: one, investment

fields and amounts; two, GX economic transition bond; three, carbon pricing; and four, GX promotion organization.

3.1 Excessive Budget Amounts for New Technologies

According to the Japanese governmental GX Strategic Policy announced in February 2023, the amount of investment in 2030 will be approximately: 0.7 trillion Yen for hydrogen/ammonia, 0.34 trillion yen for carbon recycling (CO_2 extract/capture, synthetic methane, synthetic fuels, SAF, etc.), 0.1 trillion yen for nuclear (research and development of innovative reactors, etc.), and 0.4 trillion yen for the implementation of advanced carbon capture and storage (CCS) projects (METI, 2023). This breakdown of the governmental GX indicates that the intention is to invest less in energy savings while investing in areas of uncertain economic rationale, such as hydrogen/ammonia for power generation fuels, nuclear power plants, and CCS.

Especially, the governmental GX has made the return of nuclear power plants clear. To be specific, the Innovative Reactors Working Group of Nuclear Sub-Committee under the Electric Power/Gas Business Committee of the Advisory Committee for Natural Resource and Energy issued the following on 29 July 2022: a technological roadmap for innovative reactor development to realize carbon neutrality and energy security (outline draft) (METI, 2022a). In this outline, it was clearly stated that: the "innovative light-water reactor is a future technology in line with the existing light-water reactor technologies, which have been constructed all over the world. However, what the government describes as an "innovative light-water reactor" is not so "innovative," since it is almost the same as a large reactor that the EU and other countries are already building. Although the government claims to "incorporate a new safety mechanism," there is in fact very few additional as well as significant safety mechanism installed. Furthermore, all other smaller reactors depicted in the governmental GX have difficulty in the development stages due to their high costs. There is no proof yet that fast reactors and high-temperature gas-cooled reactors are capable of producing electricity efficiently, and nuclear fusion reactors are still in the experimental stage.

In other words, the governmental GX is pushing for investment in nuclear power plants, while failing to prove the rationale behind this.

3.2 GX Economic Transition Bond Not Leading to Emission Reductions

As a way to finance governmental GX, the Japanese government is going to issue a GX Economic Transition Bond of about 20 trillion yen (about 2 trillion yen per year) as governmental investment from roughly the 150 TY investment needed for the next ten years among public and private sectors (METI, 2023). In fiscal 2023, the bond issued would be 0.5 trillion yen, and, when combined with 1.1 trillion yen bond issued as a refinancing bond under the second supplementary budget of fiscal 2022, the total would be 1.6 trillion yen. As the fund of these bonds would be financed eventually by uncertain amounts of revenue from future carbon pricings, the government issued "bridging national bonds" with redemption in 2050 to finance the current bond issuances. With the possible issuances of ten or twenty years bonds, and the prioritizing of expenditure increase over securing financial resources, this would likely increase the national debts for a short period of time.

As mentioned before, whether the subjected areas of investment would advance decarbonization or not could be in doubt. As a result of these issues, the interest rates could rise further.

There has been a problem with all those transition bonds issued in Japan. The fund usage and its outcome do not necessarily result in the achievement of bond issuance objectives. For example, JFE Holdings Co., announced on 30 January 2022 that they would issue their first transition bonds within fiscal 2022. The bond issuance amount would be 30 billion U.S. dollars and it would be used for the development of energy saving technologies in the iron and steel manufacturing sector, and so forth. Their bonds were approved as the "Climate Transition Finance Model Project" designated by METI and received subsidies from METI. According to their announcement of the bond issuance, however, their bond issuance period does not coincide with the CO_2 emission reduction target year of their own commitment or of METI's subjected projects. So it may be bringing uncertainty into a system for investors to ensure the "transition" element of subjected projects (RIEF, 2022).

For GX economic transition bonds, it is necessary to set up a clear roadmap and to create a system to disclose information to investors about the CO_2 emission reduction effects and economic effects of the bond issuances and their fund procurement.

When issuing GX economic transition bonds for projects such as mix combustion of hydrogen/ammonia and fossil fuels, continued use of fossil fuels like natural gas and CCUS, or investment in nuclear related projects, it can be difficult to get international approval, because: firstly, CO_2 emission reduction effects are comparatively less than other options; and secondly, it is difficult to present CO_2 emission reduction effects clearly.

Such projects may result in higher interest rates if they are linked with GX economic transition bonds.

As a way to redeem the GX economy transition bonds, the government plans to use the revenues obtained from the fossil fuel taxes and the auctioning of emission allowance fees. But there are big uncertainties about the time and amount of such revenues.

In a nutshell, the transition finance under the governmental GX will be used to invest in nuclear power plants, and technologies with lower future prospects, such as hydrogen-ammonia power generation, and CCS. Such projects may result in higher interest rates if they are linked with GX economic transition bonds. Given these factors, the governmental GX's transition finance may not to be able to achieve its original goal of "setting off" the flow of private sector investments.

3.3 Insufficient Carbon Pricing

Originally, carbon pricing is to set a price on CO_2 emissions under the carbon tax and/or emissions trading schemes, in order to implement CO_2 emission reductions more efficiently. In Japan, the current carbon prices imposed in the name of a tax for global warming measures (about 2 U.S. dollars per ton of CO_2)[2] are much lower than those of other countries.

In such circumstances, carbon pricing, which the government would call "growth-oriented," may have the following consequences:

Firstly, the GX league to be introduced from 2023 by the government is actually a baseline-and-credit type of emissions trading system, which is assured to fail, since the emission entity itself is to set its own baseline and to trade any emission reductions over the baseline as their credits. Under the GX leagues, the government plans to operate a framework wherein a participating company sets their carbon emission reduction target voluntarily, to make investments for emission reductions, and to trade an emission reduction amount voluntarily to achieve its own target (METI, 2023).

Such emission trading schemes have significant differences from the cap-and-trade type systems already introduced in many countries and regions, including the EU, Korea, and China. Under the cap-and-trade system, each entity is to decide its own upper limit of emission allowances and to trade a part of such allowances. Considering the arbitrariness of baseline setting, it may be less effective in bringing actual CO_2 emission reductions. As participation in such

2 Calculated at the rate of 1 U.S. dollar/150 Yen.

a system is usually voluntary, the number of participating companies may be limited.

The Japanese government plans to introduce such cap-and-trade schemes in the power generation sector from 2033 onwards, which is 28 years later than the EU's introduction of cap-and-trade schemes in 2005, and about ten years later than China and Korea. As it is not likely to contribute to the achievement of Japan's 2030 goal, instead only prolonging the current electric power and energy system, it will be inevitable that the EU will affect "sanctions against Japan" under their Carbon Border Adjustment Mechanism (CBAM), to be introduced from 2026.

The second problem is the uncertainties in the amount of carbon taxes. Japan is to impose carbon taxes for fossil fuel imports from 2028, but it is too late and too uncertain whether the amount will be sufficient or not. In fact, a new carbon price under the governmental GX is estimated to be around 6 U.S. dollars per ton of CO_2,[3] which will be significantly lower than those of Europe and the US.

Moreover, the carbon tax will not go into the national treasury, but instead into the Organization to promote economic structural transition for decarbonized growth (GX Promotion Organization), an entity licensed under the METI. So, the revenues from carbon tax will likely augment the METI's budget, while at the same time raising METI's power of authority.

4. Risks in Toyota's Omnidirectional Strategy

On 9 September 2021, the then Chairman of Japan Automobile Manufacturers Association, Inc. (JAMA), Mr. Akio Toyota (President of Toyota Motor Co. at that time) commented at his press conference that, "some politicians said it would be better to switch all cars to electric vehicles, but that would not be right" and "the government's global warming target does not reflect the current situation in Japan, rather it has been made in a way to conform to the trend in Europe." (Asahi Shimbun, 2021) In addition, Mr. Akio Toyota kept on saying that "there is more than one path to decarbonization" (Toyota, 2021) to justify selling hybrid vehicles.

Using Toyota as an example, I will discuss the moves made by Japanese automobile manufacturers that pertain to electric vehicles (EV).

The shift to EVs is accelerating throughout the world toda**y.** Electric car markets are seeing exponential growth as sales exceeded 10 million US dollars in 2022

3 Assuming that GX bonds are to pay back the full amount of 20 trillion yen in 30 to 50 years, the payment amount per year will be 1 trillion yen in average. This means 1000 Yen per one ton of emissions in terms of carbon taxes, which will require the carbon pricing of about 6 U.S. dollars per ton of CO_2 at a rate of 1 U.S. dollar per 150 Yen.

(IEA, 2023b). Most countries have either decided or are in the process of deciding whether to ban gasoline or diesel cars, including plug-in hybrids, starting in Norway from 2025, and in the Netherlands, France, UK, Sweden, Ireland, Spain, and others from 2025 to 2040. 15 July 2021, the EU decided to ban the sales of gasoline cars, including hybrids, from 2035. The US and other countries are planning to ban the sales of all cars other than ZEV (Zero Emission Vehicles) by 2035. On 5 August 2021, US President Joe Biden signed the Presidential Decree to request 50 percent of new car sales to be EVs. Although the EU changed the rule and now allows cars with combustion engines that can run on e-fuels in July 2023, it is clear that the demand for the EV will continue to increase.

Among automobile manufacturers, General Motors (GM) will abandon gasoline cars by 2035. Volkswagen is aiming for 70 percent or more of its vehicles sold in Europe to be EVs by 2035. Mercedes Benz will have their entire fleet shifted to EVs by 2030. In Germany, the German Automotive Union demands the expansion of investment in EVs. In Japan, Honda Global announced in April 2021 that they aim to shift all new car sales in the global market to be either EVs or Fuel Cell Vehicles (FCV) by 2040.

On the contrary, Toyota Motor Corporation has adopted "the omnidirectional strategy to sell hybrids and EVs," which can be described as a strategy to practically guard hybrids. During the Trump administration, Toyota, along with Mitsubishi Motors and GM, tried to prevent the State of California from imposing more strict exhaust gas emissions regulations, taking the side of the Trump administration. Ford, Honda, and others, however, took an anti-Trump stance, and supported California's tightening of exhaust gas regulations.

Toyota's strategy invited the criticism from the world. For example, in an article of the New York Times by Ms. Hiroko Tabuchi on 25 July 2021, Toyota was criticized by being against the tightening of CO_2 regulations, and contributes funds to the Republican congressional members, simply because they want to sell hybrids.

There have been many instances when automobile manufactures took different stances on environmental regulations. One clear example is from Japan in 1970s: at that time, the US enacted the Muskie Law to strengthen the regulations of automobile exhaust gas and fuel efficiency, and Japan started to move towards enacting a Japanese version of the Muskie Law.

In October 1972, the Environmental Agency of Japan (at that time) proposed the average amount (standard amount) of exhaust gas, which was to be called the "1976 regulation of exhaust gas." In June 1974, the Environmental Agency of Japan held a public hearing about the implementation of the 1976 regulations, inviting automobile manufacturers, requesting them to submit data on the regulatory values. Toyota and Nissan refused to submit such data, while Honda and Toyo Industries (now Mazda) submitted the data. As seen at that time, the two

major car manufacturers, Toyota and Nissan, demonstrated different stances toward exhaust gas regulations from the ones taken by Honda and Toyo Industries. Certainly, history repeats itself.

Today, Japanese car manufacturers, led by Toyota, show overwhelming strength in the global market. In terms of the number of cars sold in the world, in 2023 three companies out of the top ten manufacturers were Japanese. However, in the sales of EVs, Japanese car manufacturers are losing to other competition. In terms of the number of EVs (including plug-in hybrid cars) sold in 2023, the Chinese company BYD was at the top (manufacturing EVs exclusively), second came the US company Tesla, there were no Japanese companies in the top ten (EV Volumes, 2024).

Toyota's strategy seems to exist to gain as much profit as possible from the sale of hybrid cars, and to use such profits for the research and development of EVs. In Toyota's portfolio strategy, hybrid cars are considered a cash cow.

The problem is how long Toyota can continue such a strategy for. They may face many difficulties in determining when to change their strategy. Firstly, it is possible that the EU and the US will move more quickly toward EVs than anticipated. Another possibility is that China, which will be the main market of EVs in the future, may change their current policy to promote the introduction of hybrid cars. Moreover, the criticism towards hybrid cars may spread further amongst the international community. Whether to concentrate company resources for their "cash cow" or not is an ever-lasting challenge in business management. It is quite likely that this issue is, and will also be in the future, very problematic for Toyota's leadership.

5. Conclusion

Why is Japan so slow in decarbonizing? Why does it keep greenwashing? People may have different answers to such questions. The biggest obstacle, however, could be the lack of awareness among Japanese people about the criticality and urgency of global warming issues. Compared with other countries, Japan has a smaller risk of damage from floods, draughts, wildfires, and other climate related disasters. In fact, in Japan, there have been almost no draughts and no wildfires. Heavy rain does occur in the west of Japan from time to time, however, but casualties are generally much smaller than in other countries which suffer from heavy rain and flood with dire consequences. Additionally, I think that being a nation surrounded by oceans, people tend to have insular attitudes toward disasters in other countries. Moreover, there are no environmental refugees coming to Japan from other countries. It is an absolute fact that, although there are several ac-

tive civil society groups hich are tackling the climate change issue, the number of participants in the demonstrations on the street are much smaller than in EU member countries and the US.

Another factor could be the powerful political influences of major power companies, iron and steel manufacturers, and car manufacturers, which seem to have succeeded in delaying the liberalization of the electric power sector, unlike Europe and the US. Moreover, there is a tendency for anti-nuclear power groups to become skeptical about climate change because the Government of Japan has stated repeatedly that nuclear power is necessary for climate change mitigation.

All in all, it appears that, in general, Japanese people seem to consider global warming as a lighter problem. Since not just global warming issues but also energy issues never get as much attention as election issues, even at the national level.

Of course, such statements will inevitably invite criticisms and counterarguments from the people that feel less responsibility for climate change mitigation action. Such as, Japan's CO_2 emissions are less than other countries; Japan, being an island nation, has difficulty interlinking with other countries, and has smaller territorial potentials to introduce renewables; and developing countries such as China and India with their increasing emissions should reduce their emissions.

Japan is the fifth highest CO_2 emitter in the world (eighth in per capita CO_2 emissions). Other countries with isolated power grids, like Spain and Ireland, have targets of 70 percent or greater renewables by 2030. (Japan's target is 36 to 38 percent)

As discussed at the beginning of this paper, the International Energy Agency (IEA) stated in its scenario for "Net zero emissions in 2050" that developed countries must phase-out all coal thermal power with no mitigation measures by 2030 and realize zero emission electric power by 2035. Many developed countries have already set the target of coal thermal phase out before 2030, and the US and Germany have their national targets of a zero-emissions power sector by 2035.

In the power sector, the Japanese government's targets for emission reductions and renewable energy share do not align with those of other developed countries. In addition, it could be impossible to achieve even such low targets as these, as stated in this paper. There is little sign of the government strengthening the existing policies, so its inertia can be seen as abandoning any effort to achieve the goals.

For Japanese companies, however, a lack of progress in decarbonization and/or the failure to increase the shares of renewable energy in the power sector (currently around 25 percent) will raise the risks in the future market of 100 percent renewables, such as: firstly, companies cannot sell their products and services; and secondly, companies lose the opportunities to enter into, or lose the

existing contracts for, the supply of product parts, services for offices and various businesses, and supply chains in the transportation and other sectors.

In other words, any delay in decarbonization measures and the continuation of fossil fuel dependency at the national level will close business opportunities for Japanese companies in the future.

The scope for businesses to be affected could cover the whole manufacturing sector and even beyond those businesses adversely affected by decarbonizations. It is possible for the risks and adverse effects to get even greater and wider. Therefore, the introduction of energy savings and renewables as major global warming measures can be energy security measures as well as industrial policies with economic rationale. The investment into energy savings and renewables is a critical fiscal policy, as it can prevent the large out-flow of national wealth to purchase fossil fuels.

The government has often stated that the "2020s are the critical ten years to win in global warming measures" (Kishida, 2021). However, the governmental GX will certainly turn these "critical ten years" into "ten years of inertia." It will not only delay actions on global warming measures but also lead to negative economic growth through the failures in industrial and fiscal policies, bringing another lost decade to Japan.

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Cold War Environmentalism and Modernity's Culture Wars: Understanding the USA Through a Comparison with Russia

Teresa Ashe

Abstract

The environmentalism of 1960s America was not associated with any particular political party—hopes of clean air, water and soil were universally accepted political goals. By the 1990s, the Republican party had not only rejected the need for environmental policy, but also environmental science itself. Party political identification from this point on gave a fairly accurate prediction of an individual's attitude to environmental issues. This chapter looks at the emergence of the American anti-environmental movement, which paved the way for the climate skepticism that now characterizes Republican attitudes to climate change. It considers the history of the American and Russian environmental movements and the American anti-environmental movement to show how land management, the development of geo-science and the relationship between science and the state during the Cold War are important factors for understanding right wing rejections of climate science in America.

Keywords: climate change; skepticism; Russia; USA; modernity

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Climate change denial has, in the United States (US), become an important cultural and political marker. It has been added to the "'culture wars' (joining God, gays, guns, and abortion) in the eyes of conservative laypeople" as "a virtual litmus test for Republican political candidates" (Dunlap & Jacques, 2013). This correlation is well established in the literature on climate change skepticism and denial, where right-wing beliefs and anti-environmental world views underpin various strands of climate denial and skepticism (McCright & Dunlap, 2011; Dunlap et al., 2016; Jacques, 2009).

Yet environmentalism has a long history in the US and this partisan association is relatively recent. Even in the 1970s, it was not a radical or partisan movement. It was presented as a common-sense agenda of keeping air, water and soil clean for the benefit of human health and nature. "Democrats and Republicans differed in the extent of their support for environmental laws, but the bitter partisan disputes over these issues that were to erupt in the 1980s and 1990s were not yet a fixture on the political scene" (Kraft, 2000, p. 24). There was a critique of industrial pollution, but largely in the sense that a few selfish firms were polluting communal resources for their own ends: "[t]he underlying assumptions appeared to be that environmental problems were relatively simple and the solutions obvious and easily achieved".

This chapter traces the roots of the connection between the American right and the anti-environmental movements through the emerging environmentalism of the early twentieth century and the time of the Cold War. This period is important because, although climate change was not placed on the policy agenda until 1988, the anti-environmental movement of these decades paved the way for climate denial. In assessing when and how they became so closely entangled, the chapter considers Soviet Russia's environmental thought as a contrasting experience in order to highlight the importance of considering the history of land management in the country, the development of geo-science and the relationship between science and the state during the Cold War. The chapter will show how understanding of environmental ideas about the relationship between nature and society became so partisan and how this links to deeper questions about modernity.

1. Environmentalism in the US

The first wave of American environmentalism began in the late 1800s and was "characterized by the emergence of naturalist and advocacy groups" (Stoddart et al., 2022). Thinkers like John Muir argued for the preservation of nature and wilderness as recreationally and spiritually valuable, while from 1900, the first chief of the US Forest Service, Gifford Pinchot, promoted the idea of wise use of

natural resources to ensure human benefit. Both preservation and conservation traditions shaped American attitudes to nature, building on indigenous and colonial conceptualizations of earlier centuries, and recognising nature as something to be protected from rampant industrial exploitation.

After the Second World War, this developed into "a full-fledged Wilderness Movement" (Stoddart et al., 2022, p. 4), marking a change in public attitudes from "an earlier emphasis on resource extraction and privatization of the nation's resources to […] a broader stewardship of public lands that would protect selected areas from economic development" (Kraft, 2000, p. 20). However, this was contextualised within a world view that was heavily shaped by enlightenment values, promising a future of technological advancement, social progress and wealth.

The success of the military nuclear project that led to the atomic bomb (the Manhattan Project), the close relationships between military funders and scientists and the dizzying speed of scientific progress in the previous half century led to postwar optimism about knowledge and control of the planet. The geo-sciences particularly benefitted from war technologies like the computer and nuclear weaponry in the 1950s and from efforts at global cooperation like the international geophysical year (IGY) of 1957/8. Nuclear fallout allowed geo-scientists to track the general circulation of the atmosphere and oceans, while the computer was used by meteorologist, John von Neumann, to study numerical weather prediction and helped developed the first general circulation model (GCM) of the atmosphere in 1955. Between the state military and geoscientists there was what Edwards (2010) calls a "mutual orientation". Researchers remained in control of scientific research and focused on "basic" science, which aimed to better understand the world. Yet this research was amply funded by military funders like the Office of Naval Research (ONR) and was expected to yield results that would later be developed and applied to real-world military and commercial projects. For example, von Neumann viewed a better understanding of the atmosphere as the first step towards the creation of weather weapons that would provide the US with advantages over Russia in the Cold War.

Understanding of the atmospheric system as a complex machine with a few levers that could be pulled to achieve desirable results was established science in the post-war period. Hopes for weather modification that would have military and domestic applications were rife in the meteorology that gave rise to numerical weather prediction and GCMs. Yet, unease about the power of technology over nature, blended with Cold War anxieties and nuclear fears, grew with the arms race between the rival Superpowers. Promethean attitudes to nature shifted both socially and scientifically.

Socially, Cold War worries about nuclear war, nuclear pollution and resource use pressures joined issues like dichlorodiphenyltrichloroethane (DDT) insecti-

cide pollution, population growth and unsustainable resource use in shaping popular environmental concern in the 1960s. Drawing on the wider "protest cycle" of the civil rights movement, environmentalism imagined radical change. New NGOs like Greenpeace were created, which favored dramatic civil protests that played well to news coverage. The movement enjoyed legislative success with the 1964 US Wilderness Act, which "designated lands to be set aside primarily for aesthetic and recreational use", while the 1976 Federal Land Policy and Management Act (FLPMA), "specified that the public lands were to be retained in federal ownership and gave the federal government the authority to administer the public lands in perpetuity" (Switzer, 1997, pp. 172–173).

Scientifically, efforts at Promethean control gave way to something more nuanced as the complexity of the earth's systems became increasingly apparent. Edward Lorenz' chaos theory showed that, because measurements in the real world could not be made to infinite accuracy (a thermometer is only able to round a temperature reading to a few decimal places) any computer program set up to project what the weather would do becomes increasingly unreliable as the miniscule inaccuracies in initial values compound over further iterations (Lorenz, 1972). Rather than a machine with a number of levers that could be set to achieve desired outputs, the climate system was showing itself to be a set of extremely complex, multi-directional balances, which could be influenced by even small changes in initial variables.

Weather modification provides a good example of these shifts. Research projects bore fruit in the 1960s when cloud seeding techniques were used successfully in combat in Vietnam and tropical cyclone steering was used domestically. Yet, by the 1970s, similar projects "fell prey to large-scale changes in American attitudes toward technology, risk, society, and nature" (Kwa, 2001, p. 136). In 1972 cloud seeding outside Rapid City, South Dakota, saw seeded clouds unexpectedly remain stationary and deluged the area killing over 200 people (Kwa, 2001, pp. 147–148). In a litigious society, the risk and liability of intervening in natural weather was not that it might fail, but that it might work in an unforeseen way. Thus, by the 1970s, earlier optimism and Prometheanism gave way to something more subtle and responsive.

2. The 1970s: Environmentalism and a Changing Science

In the 1970s, environmentalism became a significant political force as concern about air and water quality, endangered species, resource use and hazardous waste disposal became the subject of public concern and increased legislation. Membership of environmental charities and NGOs rose markedly, and the Envi-

ronmental Protection Agency (EPA) was created in 1972. The Cold War was also entering a new phase of *détente* (easing of strained or hostile relations) after the signing of the Strategic Arms Limitation Talk (SALT) in 1972. Based on the logic of mutually assured destruction through atomic weaponry, the hostilities between the two superpowers cooled somewhat and attention to domestic problems became possible. The environmentalism of the 1970s was recognizable as the blend of issues that we know today, yet there was still no strict left-right split over them. Richard Nixon, for example, declared himself an environmentalist and supported much of the legislation of the 1970s (Kraft, 2000, pp. 24–25).

To understand why this changed it is important to look at the way earth science was shifting in this period. The "mutual orientation" between science and the state, which had kept a strict separation between basic science and the more challenging ethical questions of applied science began to erode. Two reports, the *Study of Critical Environmental Problems* (SCEP) (1970) and the *Study of Man's Impact on Climate* (SMIC) (1971) linked science and the environment to "show climate scientists' appreciation of the systemic character of climate and its dependence on the interactions and feedbacks of atmosphere, hydrosphere, cryosphere, biosphere, and so forth" (Heymann & Dahan-Dalmédico, 2019, p. 1144). Both reports drew on GCMs as "the only way that we now conceive of exploring the tangle of relations" (Edwards, 2010, p. 364). The reports were designed for policy makers and the public and in 1972 SMIC was widely read at the United Nations Conference on the Human Environment (UNCHE) in Stockholm.

The role of the computer model was becoming indispensable and the notion of strictly separable disciplinary areas difficult to sustain. Earth system models (ESMs) drew together and unified disparate geo-sciences into single representations of the earth's systems, while later economic factors were also included creating integrated assessment models (IAMs). Multi-disciplinary research communities began to form – the "Global Atmospheric Research Program, the World Climate Research Program, the International Geosphere-Biosphere Program, and the IPCC facilitated and supported the systemic approach" (Heymann & Dahan-Dalmédico, 2019, p. 1145). These organizations formed a powerful international voice for environmental awareness.

Models became inherently blended with political issues. "The model as such lost attention as a goal in its own right. Instead, modeling as a projection activity for political purposes, the generation of possible or desirable climate futures decades ahead, gained predominance" (Heymann & Dahan-Dalmédico, 2019, p. 1145). Political goals, like Adaptation, shaped the way that modelling was focused. Predictive modelling or scenarios became important with story lines and numbers. IAMs made use of the data from ESMs to consider economic scenarios and social changes. These models became a knowledge regime that "disciplined

scientists to see the world in certain ways and act according to the standards of practice it imposed. It shaped interests, perceptions and worldviews, and the transformative agendas they propelled" (Heymann & Dahan-Dalmédico, 2019, p. 1146).

This new science, characterized by recognition of complexity, the need for interdisciplinarity, a growing international community and the indispensability of the computer model, nurtured a new generation of atmospheric modelers. For some, like Stephen Schneider and James Hansen, it would become important to make clear to the public and policy makers that atmospheric modeling could predict and inform society about future risks and threats (Heymann & Dahan-Dalmédico, 2019). From the 1960s, atmospheric pollution issues like super-sonic Transport (SST), acid rain and ozone depletion began drawing scientists into public debates and challenging accepted ideas about the relationship between scientists and society. By the 1980s, this would create severe tensions between the new generation and scientists used to the norms of mutual orientation era "basic" science. By the 1980s, anti-environmental movements were coalescing in response to environmentalism as a social movement and they began to mistrust the scientists and science that shaped environmental calls for policy.

3. Federal Land: The Problem with Experts

Tension between the environmental movement and its detractors was not new. The first wave of environmentalism had faced a wave of resistance and criticism when advocating the protection of land from development. This largely came from the western states of the US in the 1940s and again in the 1960s and 70s as resistance to the Wilderness Act. This resistance had its roots in eighteenth century land policy and has been an important factor in structuring how and why anti-environmental ideas took root so easily in the US.

After the American Revolution, the original eastern states of the proposed union had had concerns about joining with the western territories, which had claims to adjacent land. Claimed land could be sold off in payment of war debts and would leave the eastern states at a disadvantage, having to place high tax burdens on their citizens. In 1780, the problem was solved when it was "pledged that if the claiming states ceded the lands west of the existing boundaries of the thirteen original states to the federal government, the land would be disposed of for the common benefit of the United States" (Switzer, 1997, p. 23). In 1850, landholdings of 1.2 billion acres or more were held by the federal government, which tried to sell much of its holding through policies like the Homestead Act of

1862, but this was not as successful as hoped and much land remained in Federal control.

Strong feelings in the western territories that land management should be local, created resentment that Federal land had not been privately developed as expected. Accompanied by a largely liberal, *laissez-faire* (market led) economic perspective, there was also concern that policy makers, far away in the east of the country, had little reliable data for making policy. Suspicion of Federal management was rife in the west of the US but was not a partisan issue. For example, in 1912, a Democratic National Convention called for transfer of all public lands to the states (Switzer, 1997). It fostered a wariness of distant experts and a mistrust of government management of communal resources.

Between 1979 and 1981, resentment about the disputed land led to the Sagebrush Rebellion, when fifteen states proposed and considered legislation that would "return" Federal land to state level control. This fragmented effort proved unsuccessful, so the sagebrush rebels took their demands to the Federal level in Washington in what was known as the "wise use movement". Led by Ron Arnold and Alan Gottlieb, it drew, misleadingly, on the phrase coined by Gifford Pinchot, because "wise use" was a "simple utopian term" that was "catchy" and "marvellously ambiguous" (Rowell, 1996, p. 14). In 1989 the mission statement, *The Wise Use Agenda*, highlighted 25 goals, including privatizing national parks, opening up old-growth timber, making it a felony to let usable timber burn in a forest fire and eliminating development restrictions. For the first time in the dispute, the agenda drew together a range of interest groups under one banner.

The movement drew on "delegitimation" tactics to marginalize environmental concern, by using "powerful visual imagery and incendiary rhetoric to characterize the opposition, denying them a familiar, human face by depersonalizing them and portraying them as alien and irrational" (Switzer, 1997, p. 209). There were also links made between environmentalism and communism or mysticism, appealing to patriotism and religious faith, to marginalize environmental issues. A logic that environmental thought was against common sense appealed also to people who felt environmentalism had gone too far. Environmentalism was being reframed and rejected in ways that appealed particularly to conservative Americans with pro-market, patriotic and religious values.

While anti-environmentalism is often linked to industry interests, there was a genuine grassroots element to this movement. Communities mobilized in logging and grazing areas, where conflict with the Federal government and environmental ideas was strong. The Associated California Loggers (ACL), was a key player and drew together an activist group, "Women in Timber[, which] would become one of the most well organized and powerful voices in the environmental

opposition, combining grassroots activism and a strong ideological partnership with industry organizations" (Switzer, 1997, p. 194).

Reagan positioned himself as sympathetic to the Sagebrush rebels, with his appointment of James Watt as Head of the Department of Interior. Watt's ideology drew on dominion theology (that Genesis gave humanity dominion over the planet) and believed that: "You can't really hurt the planet because God wouldn't allow that. God wouldn't have given man [sic] chain-saws if he didn't think they were benign" (Chip Berlet, expert on the political right, explaining dominion theology in Rowell, 1996, p. 9). The Reagan Administration even planned to sell off "excess" Federal land in 1983 thus meeting the rebels' demands, but the land made available proved unappealing and many rebels began to feel that state ownership might not support the average rancher as much as hoped. When Watt resigned in 1983, the wise use movement lost momentum, but it had enjoyed more cohesion than previous efforts. It was one strand of a wider anti-environmental movement that was growing on the American right.

4. The Republican Break with Environmentalism and its Science

Anti-environmental discourses developed in the 1980s, drawing on conservative Think Tanks (CTTs), which were created to offer alternative authoritative knowledge after the SST debates. Addressing a range of issues from smoking and DDT to acid rain and ozone depletion, Republicans relied on CTTs and conservative scientists to provide knowledge claims that challenged the need for policy on public health and environmental issues (Oreskes & Conway, 2010). The scientists involved were often trained physicists with a history of working closely with the state on military projects and with CTTs and businesses to legitimate industry positions on policy issues (Ashe & Poberezhskaya, 2022). Their worldviews were still largely rooted in the values of postwar Prometheanism, Cold War belligerence and a mutual orientation view of science and state. They would later provide the core of the climate skeptical scientists who would popularize climate denial in the 1990s.

Yet, at the start of the 1980s there was still some semblance of scientific integrity in tackling environmental topics. In 1981, a panel on Acid Rain convened by William Nierenberg showed both that he had "the right political-economic philosophy to mesh with the Reagan administration" and yet was also sympathetic to environmental concerns—"you just know in your heart that you can't throw 25 million tons a year of sulphates into the Northeast and not expect some [...] consequences" (Nierenberg quoted in Oreskes & Conway, 2010, p. 85; 91). Yet by the time the report came out in 1984 there were accusations of deliberate delays and

tampering with the report to weaken and reject its findings. The shift from a not unreasonable desire to find some cost-benefit approach that would trade off environmental and political-economic needs for the country to flat out denial and obfuscation may be explained by considering the Cold War tensions that came to a head in 1983.

Détente had proved successful for nearly a decade, but Reagan's incoming government in 1981 publicly signaled an end to *détente* when the US Secretary of Defense, Caspar Weinberger, talked openly about limited or tactical nuclear weapons as the appropriate deterrent if the Soviets ever approached Europe with conventional weaponry. This mobilized the anti-nuclear movements to call for a "nuclear freeze", by which no new nuclear weaponry would be created and the existing stock would decay and ultimately lead to disarmament.

As part of his rallying call to renewed Cold War patriotism, Reagan resurrected an idea from the 1970s: to create an anti-ballistic missile (ABM) system, which became known as the Strategic Defense Initiative (SDI) or "star wars" to its detractors. In 1983, Reagan called on "the scientific community in our country [...] who gave us nuclear weapons, to turn their great talents now to the cause of mankind and world peace, to give us the means of rendering these nuclear weapons impotent and obsolete [...]" (Reagan, 1983).

Scientists had long reflected on the dangers of nuclear conflict and their responsibilities as a community. Existing organizations like the Federation of Atomic Scientists, established in 1945, and the Union of Concerned Scientists (UCS) established in 1969, resisted, joined by a boycott of SDI funding organized with Carl Sagan as a public figurehead. Sagan published a paper with international coauthors (known as TTAPS after the initials of the five authors' second names) which made the argument for "nuclear winter", using a single column GCM to show how the dust thrown up by a nuclear explosion would self-loft into the atmosphere and hang in the air, blocking out the sun. "Historically, it was unprecedented. Scientists had never before refused to build a weapons system when the government had asked" (Oreskes & Conway, 2010, p. 43).

1983 therefore marks the point at which the Republican Right and the orthodox scientific community became estranged. From a Republican point of view, environmentalism was aligning with Communism in both its calls for market regulation and its resistance to Cold War engagement. The science of environmentalism was transgressing its proper remit of basic science and had begun criticizing military policy and calling for environmental protection using esoteric and complex computer models that made mastery of the planet seem impossible in principle. This challenged cherished worldviews not only in respect to the superiority of market capitalism, but even the ontology of a rule governed world that could be under the dominion of humanity.

The result was a distinct rupture between Reagan's government and environmental science. Republican scientists like Edward Teller, Robert Jastrow and Fred Seitz, all physicists with distinguished careers in mutual orientation era big science, decided to create an institute that would serve as a counterweight to the UCS (Oreskes & Conway, 2010, p. 54). The George C. Marshall Institute would become a key player in the network of CCTs that provided alternative knowledge claims on policy issues over the following decades. Like the Cato Institute and Heartlands Institute, it would play a principal role in providing heterodox knowledge claims on climate science.

Over the course of the 1980s atmospheric pollution issues like ozone depletion and climate change saw international regulations mooted that would affect US industry and international communities of scientists. Environmentalists began espousing a world view and set of values that was in marked contrast to the American worldview in the postwar period. CCTs and the American right tried to stem the flow, mounting what Jacques (2009) calls a rearguard defense of modernity. For these Cold Warriors and their contemporaries, environmental science was political, economic, scientific and religious anathema. It is this challenge to deeply held beliefs about everything from the ethics of nuclear armament to the nature of the real world and its knowability that explain why climate skepticism and anti-environmentalism more generally became so deeply entwined with the American right.

5. Early Russian Environmentalism

An anti-environmental movement in the US is perhaps unsurprising. Social movements that seek to achieve progressive ends are often at first met with inertia or even enthusiasm, but soon prompt resistance as the difficulty of the task becomes more obvious, public attention moves on to something else and those with vested interests in the status quo regroup and respond. However, the depth and coherence of anti-environmental thought in the US is marked. While there are echoes of this type of anti-environmentalism in other anglophone nations and unique cultures of anti-environmental discourse in, for example, Russia, France, Germany, etc. the US variant is paradigmatic because of its vitriolic and partisan nature and because it often provides the model for CCTs abroad (Almiron et al., 2020). It is also remarkable how deeply the American right has rejected science itself, once such a close ally in the 1940s and 1950s.

One way to explore this entanglement of politics and environmental thought in US politics is to contrast the American experience with that of Soviet Russia. While political partisanship in environmental thought developed strongly in the

US and was firmly established by the 1980s, no left-right split was possible in the Soviet Union under its totalitarian and authoritarian regime. It had only a very limited environmental movement and therefore no need or civic space for an anti-environmental response. Yet Russia was still experiencing the same shifting relationship between society and nature, leading to a uniquely Russian variant of climate skepticism in the twenty-first century (Ashe & Poberezhskaya, 2022). Considering Russian environmentalism and its relationship with the state allows for a comparative case study that, with very few common experiences between the two environmental movements or their political roles, nevertheless both exhibit the same kind of climate denier claims in the twenty-first century. This comparison therefore highlights the relationship between nature, science and the state, which constitute the core problems with which both countries are forced to grapple.

In some ways, Russia is the most natural comparative case study to use in considering Cold War America. Both territories encompass a large geographical area with a variety of biomes. Both have abundant natural resources and areas of pristine wilderness that have been exploited over the last few centuries leading to environmental change. "[A]s in the United States, where settlement led to wholesale changes in ecosystems and to the human populations in them, so in Russia, conquering of the steppe had long-term impacts on the environment and its inhabitants" (Josephson et al., 2013, p. 40). Like the first wave of American environmentalism, early environmental concern in Russia was prompted by issues of land management, particularly agriculture and the destruction of forests (Josephson et al., 2013, p. 39). From the early 1700s, the urban intelligentsia argued that modern agricultural practice was needed to improve agriculture, prevent famine and protect forestry.

A common practice in Russia's Central Black Earth regions was that of the commune, which had hitherto characterized the relationship between nature and society. Black earth is a rich topsoil that was farmed collectively and intensively for a few years, before the communities of peasant farmers moved on to new areas. These "communes" established social structures, which passed on traditional agricultural practices and divided the land between families. "Because communes constantly redistributed the land and no household owned it, households had no long-term interest in fertilizing or upgrading soil, only in exhausting it" (Josephson et al., 2013, p. 43). This was a recognized social form of managing environmental needs in harsh terrain and would later be drawn on by the Soviet Union as evidence of Russia's special affinity for Marxist communism. Embedded in this practice was the idea of exhausting an area and then moving on, which was often used by environmentally minded intelligentsia as evidence against the ills of serfdom. However, it was not communes that led to the deforestation that concerned early defenders of the environment, but imperial practice. As the "Russian

empire colonized its territory, the peasants constantly pushed into the forest and the steppe by using slash-and-burn techniques" (Josephson et al., 2013, p. 43).

Questions about the "best" way to manage natural resources linked Russian environmental thought deeply to technocratic questions about the relationship between experts and the state. Russian environmental concern thus has deep resonance with what James McClelland (quoted in Weiner, 1999, p. 24) calls a "mystique of *nauka*" (science or learning), dated to the 1850s and 1860s, which inspired a generation of Russians to view the pursuit of knowledge as a higher calling with redemptive power for society. They tried to work with the state but were frustrated by the lack of progress. "When it acted, the Tsarist regime tried to improve agriculture without changing the social structure of the country or providing adequate resources for its modernization, a tactic that was doomed to failure" (Josephson et al., 2013, p. 43). In 1905, the intelligentsia accepted that academic freedom was incompatible with the Tsarist system of government and hoped the end of the regime would lead to a more rational, science led approach to governance. However, they were to find the end of Tsarism less accommodating than hoped. The Soviet state that emerged after the 1917 revolution was even less inclined to countenance their calls for academic freedom and decision-making power. Under the Soviet state and then the USSR, which began in 1922, there was space for only a limited, but important, environmental movement.

6. Soviet Environmentalism

Weiner (1999, p. 1) describes "the unlikely survival of an independent, critical-minded, scientist-led movement for nature protection clear through the Stalin years and beyond". Through societies like the All-Russian Society for the protection of Nature (VOOP), the All-Union Botanical Society, the Moscow Society of Naturalists (MoIP) and the Moscow branch of the Geographical Society of the USSR (MGO) an environmental movement persisted. Within these organizations a key focus was the preservation and study of *zapovedniki* (reserves), which were somewhat akin to the national parks or federal lands of America, in that they were not to be developed. However, the rationale for their existence was explicitly scientific. It drew on a belief of the time that the natural world was made up of "*biocenosis*", (something akin to eco-systems), which were viewed as bounded, separate areas, representing different biomes, in which balance and equilibrium were apparent when human activity was excluded. In the early twentieth century, the idea of creating nature reserves to study these biocenosis led to the creation of the *zapovedniki* for the long-term study of nature. They were picked to provide a baseline model of a healthy environment against which to contrast the same

kind of biome when exploited by industrial activity. This vision was realized in the mid-1920s.

The scientists who studied and protected these *zapovedniki,* described themselves as "*nauchnaia obshchestvennost"* (scientific public opinion), a special branch of the "*sovetskaia obshchestvennost"* (Soviet public opinion) that was understood to be cheering on the Soviet state. As such, the movement did not directly oppose the Soviet state (even viewing autocratic power as a more direct way of securing natural protection than more diffuse power systems), but used "protective coloration" or explicit commitment to Soviet norms to protect the movement (Weiner, 1999, p. 11). The emphasis on the scientific character of the movement was another form of protection. While it was a continuation of the "mystique of *nauka*", viewing academic freedom and the authority of experts as key goals for the betterment of society, it was also a way of appearing apolitical. In the 1920s, leaders of this movement repositioned nature protection as the discipline of ecology. As in the US, esteem for pure science, separated from society, but ultimately also contributing to laudable social goals was high. Positioning protection of nature as neutral, heartfelt and harmless, meant environmental advocates could be dismissed as oddballs and allowed a certain amount of license.

After 1945, Russia experienced the same Promethean drive and Cold War spur to conquer and control the planet as the US. Stalin's five-year plans for "collectivization, acclimatization, and the great earth-moving projects" (Weiner, 1999, p. 4) threatened both natural and social disaster, but the movement kept its criticisms as politically neutral as possible, arguing only for the inviolability of the *zapovedniki*. They sought to keep these areas of wild nature free from development as a matter of course: "Here is the crux of the matter: the word "*zapovednik"* means "a parcel of land or marine territory completely and eternally taken out of economic use and placed under the protection of the state". However, Stalin's efforts forced scientists to relinquish the inviolability of this land and allow for new visions of "Soviet Nature". Stalin eventually decided to liquidate the nature preserves and investigate the VOOP, almost securing its shutdown. Despite Stalin's death in 1953, his efforts paid off in 1955 when VOOP lost its independence. However, with Stalin gone and a changing political climate, environmentalists sought to have the *zapovedniki* reinstated and relocated the movement to the MoIP and MGO.

Soviet Russia's environmentalism contrasts with the complexity of the American environmental movement. In the US, public opinion, nuclear fears, industrial pollution, Cold War anxiety and nature protection mingled to form a public mood and social movement. In Russia, the relationship between science and the state in negotiating land management was central to the expression of environmental ideas. There were other social actors in the Russian environmental movement, such as the, *druzhina* (student movements) and Kedrograd groups of the 1950 and

1960s. They tried to enforce Russia's environmental laws and, when this failed, turned to Russian nationalism as an expression of commitment to the Russian landscape. However, scientists played a central and fundamental role in Russia because there was little civic space. Environmentalism therefore never became a mass social movement, but its ideas still grew and flowered, even if they were less fruitful than in the west.

Like the Americans, the Soviets were still techno-scientifically optimistic in the 1960s, but unlike the Americans the shift away from this approach to nature was necessarily top-down. The shifts in science that came from interdisciplinary, computer modelling of Earth systems in the 1960s and 1970s led to "Earth system scientists bec[oming] convinced that the rigid, positivist notion of prediction could not cross the threshold of high complexity, in terms of both knowledge and action" (Rindzevičiūtė, 2023, p. 151). This challenged fundamental understandings of what it means to "know" something scientifically, since positivist prediction has been a hallmark of "good science". Growing awareness of complexity therefore shifted social appraisals of what could be achieved in terms of control and domination of nature. "By the 1960s the Soviet policy science community was ready to embrace the environmental turn not only because they were concerned with the pollution and preservation of nature" but also as a space to explore the nature of society outside the Marxist-Leninist scope (Rindzevičiūtė, 2023, p. 160).

Rindzevičiūtė (2023. p. 152) examines the changing attitude to prediction and control in Soviet Russia from the positivism of the early Soviets, through the cybernetics of the post war period and the "limits to the scalability of cybernetic control". Rather than abandoning the positivist or cybernetic, Russian governance aimed to recognize different levels of governance: "In the cases of long-term and large-scale processes, where the reach of positivist, logical empiricist and cybernetic predictions is extremely limited, the emphasis shifts to creating *milieus* in which all of these types of predictions could operate in a viable way" (Rindzevičiūtė, 2023, p. 153). This concept draws on Foucault's ideas of governance through *milieu*, that these involve "forms of steering and control that did not seek to influence individuals as discrete agents, whose minds and wills were sources of action, but rather focused on their 'environment.' [… i.e. the] material systems of relations, in which these individuals were embedded and upon which they were functionally dependent" (Rindzevičiūtė, 2023, pp. 153–4). Russian scientists and government were thus experiencing the same ontological shift from a mechanistic world to a complex and chaotic world in which control and reliable prediction was an impossible goal.

7. Post-Soviet Environmentalism

Mass environmental protests did play their part in Russian history in 1987 green spaces in Soviet cities "became the locations for a remarkable series of public protests, involving hundreds of thousands of people who rallied under environmentalist—mostly public health-related–slogans" (Weiner, 1999, p. 34). These protests expressed the everyday horror of the environmental and health effects of Russian industrialization under Soviet governance, whereby "spouses, parents, children, coworkers and friends were slowly or quickly being poisoned by Soviet industrial and agricultural development" (Henry, 2010). Such protests became economic protests, then political protests, then fell into apathy as the Soviet Union reached crisis and fragmented. Post-Soviet Russia has seen a more public and widespread, but still deeply bounded, environmental movement emerge.

Russian elites try to tackle the global problems of climate change as well as local environmental damage, but Russia struggles with the political economic positioning of being a hydrocarbon rich nation and having much of its prowess linked to fossil fuel. Tynkkynen's (2019) idea of a "hydrocarbon culture" suggests that Russia's resource geography, coupled with its commitments to modernity and Big Power narrative, leaves it over-reliant on oil in the post-Soviet world and leads to denial of climate change. Soviet and post-Soviet commitments to "promoting progress and modernization, and producing economic growth and well-being via expanding industrial production" makes it impossible to acknowledge a reality that does not support this world view (Tynkkynen, 2019, p. 111). This makes it difficult to accommodate the effects of actual environmental change and is necessary to obfuscate the relationship between fossil fuel focus and the future wealth of the country.

This comparative exploration of Russian Environmentalism, therefore, highlights two narratives common to both Russia and the United States of America. First, the changing land use in the days of settlement impacted society and nature. In both countries, this raised questions about the appropriate level of industrial exploitation that would bring societal benefits without suffering environmental and ultimately social loss. Modernity's commitment to industrialization and progress through science and technology created an environmental moment in which scientific awareness of nature as a finite realm that must be understood, protected and wisely managed was recognized in the face of this "progress". Second, the shifting understanding of the planet arising from Earth System science in the 1970s and 1980s fundamentally challenged the roots of modern assumptions about control and mastery of nature, again forcing the question of what "progress" would entail back onto scientists and governance

structures. With these reflections in mind, I now turn to the question of anti-environmentalism in the US.

8. A Crisis of Modernity and a Threat to Democratic Cohesion

Anti-environmentalism in the US can be understood as a product of 1) economic vested interests (both of capital and laboring communities), 2) unease at urban elites dictating local policy (largely due to a historical accident of Federal land reserves), 3) religious doctrine (imagining the Earth as invulnerable to human activity), 4) patriotism (heightening fears and othering during the Cold War) and 5) shifts in the science/state relationship (culminating in 1983 with a Republican break from science). These factors embody American democratic norms, laws, markets and worldviews in explaining the rift that has opened up within a democratic society, destabilizing its social cohesion and inflaming intra national suspicions and hostility between the left and right.

Firstly, the vested economic interests in the status quo equated American hegemony with cheap oil and free markets, which provide motivation for both industry and dependent labor to resist change. In this sense, the context for anti-environmentalism drew heavily on the dissonance between Soviet and American economic ideas. The "classic" anti-environmentalism in the US "connect[s] conservative or neoliberal political ideologies that emphasize the free market over government regulation with corporate—particularly fossil fuel sector—interests in maintaining profitability in the face of mounting environmental concern" (Stoddart et al., 2022, p. 6).

Yet it cannot be said to be entirely top-down: "anti-environmentalism linked a form of rural, breadwinner masculinity against an image of environmentalism as an outside force that cared more for trees and spotted owls than for workers and rural communities" (Stoddart et al., 2022, p. 6). There are similar issues in coal regions where masculine paradigms particularly struggle to step out of this identity and heritage.

> "Coal is central to regional identity and dominant forms of masculinity that valorize coal sector employment and reinforce a "culture of silence" around the environmental health impacts of coal mining. By contrast, women are over-represented in environmental justice movements [...] they can step outside the regional coal mining identity by adopting a motherhood identity, which allows political space to engage in debate about issues like downstream water pollution, air pollution and the occupational health impacts that harm residents of coal-dependent communities." (Stoddart et al., 2022, p. 9)

Secondly, this labor-based resistance to environmental ideas was exacerbated by federal/state tension brought about by the historic experience of federalizing. This created an uneasiness about urban elites that infused American culture and made its citizens more amenable to anti-environmental discourses in later years.

Thirdly, the religious sensibilities of the Christian right, always sensitive to secular attack, views climate change as a secular challenge to faith. Dominion theology, anticipating a rule governed, beneficent and controllable world is hard to reconcile with the complexity recognized in the new GCMs, ESMs and IAMs. Arlie Hochschild (2016) explains that,

> "[r]ather [than viewing right wing America as duped by industry or misled], much of the anti-environmentalism that pervades the American right draws from a shared 'deep story' that profoundly distrusts government intervention, trusts in the free market as emblematic of the American Dream, and asserts a defense of Christian faith, family, whiteness, and traditional masculinity against the political and cultural shifts provoked by the social movements of the 1960s protest cycle." (Stoddart et al., 2022, p. 8)

Fourthly, science itself became part of the challenging cultural shift. By the 1980s, basic science was compromising its autonomy by engaging with policy. Worse, environmental scientists were sometimes excellent publicists, appealing directly to the public and policy makers. Natural science was having to sully itself by engaging with social science. This alienated older scientific figures who tended to hold beliefs about the great stability of the natural world and exacerbated mistrust of new modelling techniques which used computing (a new and obscure technology) to show that nature's resilience was overstated. "These attempts to maximize public attention, in spite of the uncertainties of the science, represented a strong offense against the norm of scientific reticence, a norm that still the majority of climate scientists subscribed to, particularly in the cases of uncertain science" (Heymann & Dahan-Dalmédico, 2019, p. 114).

Finally, the politics of the Cold War and patriotism heightened the stakes, particularly for people like Reagan and the elite anti-environmental scientists who lent credibility to Republican policy. The Cold War was fundamental in both developing new geoscientific insight after the Second World War and creating the situation in which the scientific communities rejected SDI in the 1980s.

9. Conclusion

Anti-environmental discourse holds power in the US and resonates with people, as much because of appeals to deeply held, unexamined beliefs about modernity, faith or the fallibility of experts as to material interests or patriotic priorities as

important as these are. It is not just vested interests and hegemonic status at stake if market economies are failing, but also modern assumptions about an ordered and reliable natural and social world. Recognition of complexity, of interdisciplinarity and of the interconnection of science and state, threaten the enlightenment promise that appropriate separation and re-aggregation of knowledge and power (science and state), of political interests (democracy) and of economic self-interest (the market) facilitate a socially optimal, balanced and stable social world.

It is also clear that the Cold War context is fundamental to understanding why this partisan rift developed. The technologies of the Second World War were used in the Cold War to deepen understandings of the natural world, while Cold War anxieties shaped environmental thinking. Competition shaped the research being done to develop geo-weaponry and conditioned funding. Cold War politics, particularly SDI, shaped the conditions under which American science and Republican worldviews were alienated from each other. As such the (Soviet) Russian experience of an environmental and scientific movement accommodated within a totalitarian state, demonstrates how American environmental thought shares a central commitment to industrial modernity that is not reducible to a commitment to democratic politics or market economics, but reaches deeper.

Both countries had to negotiate the role of the scientist *vis-à-vis* the state and the management of natural resources, particularly forestry, in considering the value of pristine nature. Both countries had to navigate the radical ontological shifts delivered by Earth System science in the 1980s. With this in mind, the struggle of the American right to adjust to new knowledge and new values demonstrates the challenges to democratic societies that commit themselves to modernism, industrialization and democracy. When modernization reaches the limits of industrialization, it cannot rationalize and exploit further without doing more harm than good and that challenges what it means to be modern. For democracy to survive, it must consciously articulate the dissonance between deeply held and cherished values and the changing ontology of how nature and society actually are.

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“Let Us Stop the Crazy Deal”: Environmentalism and the Green Deal in the Discourse of the Czech Populist Right-Wing and Far-Right Parties

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Abstract

The chapter analyzes how right-wing populist (SPD, Trikolora) and far-right milieus (neo-Nazis, neo-Fascists) discuss the environment, global climate change, sustainability, and the Green Deal. Primary sources, namely online content produced by the movements themselves are used to uncover the difference between localist environmentalism at the national level and the refusal to acknowledge the global, transnational threats to sustainable living. This will be documented by analyzing their reactions to global climate change policies and the Green New Deal. The chapter also touches on the conspiracy narratives within the far-right in response to international sustainability initiatives, like the Green New Deal.

Keywords: Czech Republic; Green Deal; localism; conservative environmentalism; conspiracy narratives

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There is a growing body of literature, which disputes the popular notion of environmentalism as a strictly left-wing concept (Forchtner, 2020; Bryant, 2023; Campion, 2023; Kevicky, 2023; Shanaah et al., 2023 etc.). As previous chapters have argued, environmental concerns span the political spectrum but are expressed with differing motives and priorities. This chapter adds to the puzzle by examining far-right and right-wing populist discourse in the Czech Republic, with a specific focus on debates surrounding the Green Deal. The approach relies on content analysis.

Considering the growing influence of the populist right-wing parties across the continent, it is vital to understand how to communicate environmental issues to them, their representatives, and constituents. This chapter intends to assist in understanding the far-right and right-wing populist parties' decision-making processes in the post-Communist EU-member nation of the Czech Republic. By identifying their ideological patterns and pragmatic motives, we aim to bridge any linguistic gap that might exist. The chapter is split into three shorter case-studies. The first examines the parliamentary right-wing populist party SPD with its powerful international connections. The second highlights a smaller, non-parliamentary conservative party *Trikolora*, and the third gives a rundown of the perspectives of many far-right fringe parties who have recently formed a coalition for the 2024 EU Parliament elections.

1. Freedom and Direct Democracy

The right-wing populist party Freedom and Direct Democracy (*Svoboda a přímá demokracie*, SPD) was founded by Tomio Okamura and Radim Fiala in mid-2015 after a series of financial and personal controversies within their previous party Dawn of Direct Democracy (*Úsvit přímé demokracie*). Since its inception, the party has consistently garnered approximately ten percent of the popular vote in major elections. The party is commonly characterized as a right-wing political party with a distinctly populist communication approach (Charvátová et al., 2022; Šárovec, 2023). Some commentators dispute the party's classification as "right-wing" populist, contending that its proposals for the nationalization of significant industries and "direct democracy" through referendums on every significant issue resemble Trotskyist concepts (Kolman, 2017). Despite its self-proclaimed right-wing positioning, the party competes with the Communist party for a similar voter demographic through rhetoric that addresses similar social grievances, as well as its pro-Kremlin and anti-American stance. The party's leader, Tomio Okamura, is frequently described as a pragmatic "political entrepreneur" akin to

Silvio Berlusconi, which may account for some of the ideological inconsistencies (Kopeček et al., 2018, pp. 147–210).

The party collaborates with various right-wing populist and Eurosceptic parties across Europe, drawing significant inspiration from the Hungarian party *Fidesz*. As of November 2023, almost 280 articles and posts supporting or directly citing Viktor Orbán were available on the SPD website. The party previously supported the Polish *Prawo i Sprawiedliwość*, but since 2022, relations have cooled due to differences regarding the Russian invasion of Ukraine. The SPD tends to align with Russia, while their Polish counterparts hold opposing views.

SPD has direct ties with the German *Alternative für Deutschland* (SPD, 2023), which was mentioned more than 130 times on the party's official website up to November 2023. It maintains direct personal contacts with Marine Le Pen of the *Rassemblement National* in France, Matteo Salvini of the Italian *Lega Nord* as well as Geert Wilders from the Dutch *Partij voor de Vrijheid* (Okamura, 2016). SPD representatives shared the stage with Wilders and Le Pen on joint rallies around Europe, including Prague (Kopecký, 2019) and Milan (Okamura, 2019b). Along with these other European parties, the SPD run in the joint block *Identity and Democracy* for the 2024 Parliamentary Elections. Okamura's post on X (formerly Twitter), published in October 2023 (see Fig. 1), depicts the SPD leader next to Le Pen and Salvini along with a banner that reads: *"We will stop the crazy EU Green Deal"* (Okamura, 2023).

The most recent political program from the SPD was published on June 10, 2021, ahead of the Czech Republic's upcoming parliamentary elections. With a word count of approximately 60,000 characters, the program extensively discusses the party's stance on environmental matters. In addition to the dedicated environment section, which is around 4,000 characters in length, the topic is also partially covered in the energy and transportation sections. The allocation of significant space to these issues and the use of appropriate terminology and technical jargon in specific fields is unsurprising given the Czech far-right and populist right-wing parties' track record of being environmentally conscious. Several influential figures within these parties possess expertise in fields such as entomology, geology, and recycling entrepreneurship. Miroslav Sládek's Republican party, for instance, exemplifies this trend (Tarant, 2020b).

The environmental section of the program opens with a strong rejection of the Green Deal: "We oppose the EU's Green Deal and its goal for achieving zero carbon footprint. Nonetheless, we value the protection of our environment while maintaining a practical and healthy approach."[1] (Program, 2021b). Concrete environmental proposals involve the nationalization of water infrastructure,

1 All translations from Czech by the author.

Figure 1: Tomio Okamura's post on X before the 2024 EP elections with the caption: "Okamura – Le Pen – Salvini // We Will Stop the Crazy EU Green Deal."
Source: Okamura, 2023.

implementation of measures to reduce groundwater pollution from agriculture, and construction of sewage systems and water treatment plants to manage and protect water resources. Additionally, measures to prevent land degradation, such as the implementation of hedgerows to partition agricultural land, are proposed. This policy is currently the subject of intense debate in the country. During the time of the former Communist regime, there was a drive to increase agricultural production by demolishing century-old landscape features which, unfortunately, resulted in topsoil erosion, destroyed entire ecosystems, and also caused significant cultural damage (Petráň & Petráňová, 2000). Addressing this topic serves the purpose of enhancing the aesthetic appreciation of nature and subtly implying the influence of agricultural corporations, the largest of which is

controlled by populist former prime minister Andrej Babiš of the leading political party ANO. Tomio Okamura pragmatically cited environmental concerns regarding "the lengthy investigation and its conclusions on the chemical pollution of the Bečva River", where one of Andrej Babiš's companies were implicated as the possible perpetrators (Okamura, 2021).

Further measures in the SPD's program involve a seamless transition away from coal-based industries, as well as advocating for autarky in the energy and food production sectors to "reduce emissions caused by unnecessary transportation of food and other products across Europe" (Program, 2021b). The party advocates for the expansion of the highway network in addition to the construction of high-speed railways and national transportation infrastructure electrification. It also proposes the construction of the Odra-Danube Water Channel, a controversial and utopian project championed by former president Miloš Zeman. The party highly endorses the growth of nuclear energy and seeks to double the present nuclear plant production by 2038.

Upon closer inspection, the environmental program places significant emphasis on autarky in energy, food production, and nationalization of public infrastructure. There is a tendency to reject and deny global climate change as well as any policies to mitigate them, including the Green Deal. In the words of the party leader Tomio Okamura: "Climate change is coming, and humans cannot stop it. If we ourselves manage our country's resources well, we can adapt." Okamura then continues by using conspiracy narratives and nativist language to attack non-governmental organizations: "In conclusion, we support the discontinuation of government funding for non-profit organizations that promote political agendas and divert attention from the core issue of our country's exploitation by multinational corporations" (Okamura, 2019a).

Whilst well-informed about local environmental matters and the precise use of terminologies, this comprehension does not extend to global issues. Radim Fiala, a member of parliament for the party, wrote: "Changes in the earth's temperature and climate have always occurred and will continue to do so, but human activity and CO_2 emissions are not the main drivers. The primary factors affecting the earth's temperature and climate are the sun's activity and temperature, as well as the earth's distance from the sun." Building on his peculiar understanding of astrophysics, Fiala continued with a rather dystopian vision of the future:

"Yes, the do-gooders and climate fanatics are preparing a new green Gulag for us, where 'progressive' environmentalists will snitch on their fellow citizens for not being green enough […] So far, it's all voluntary, but I fear it's coming down to a point, in which if you create too big a carbon footprint, you'll be sent to some correctional facility next" (Fiala, 2020).

The conspiratorial nature of these claims is not unexpected in a political party whose members, like Radek Koten and Miloslav Rozner, have openly expressed their affinity for frequently bizarre conspiracy narratives. This includes several that are antisemitic, despite the party's self-professed "pro-Israel" stance (Tarant, 2020a). Conspiratorial terms like "Globalism" or "New World Order" were indeed present in dozens of entries on the party's website as of November 2023.

2. Trikolora

After a series of internal disputes and controversies in 2019, a conservative faction of politicians in the Civic Democratic Party, led by Václav Klaus Jr. (son of the former president), established a new political movement called Tricolor (*Trikolora*). The political faction was later transformed into a fully-fledged political party in 2021. After the resignation of Klaus Jr., Zuzana Majerová became the new chairwoman, with musician and journalist Petr Štěpánek as vice-chairman. Polls conducted in the summer of 2023 estimated the party's election potential at 2.5 percent (MEDIAN & Czech Press Office, 2023). In June 2023, Trikolora and Okamura's SPD signed a joint coalition statement for the upcoming European Parliament elections (Majerová & Okamura, 2023).

Unlike the SPD, whose program presents a detailed outline of its environmental policies, priorities, and grievances, Trikolora has not published a comprehensive environmental vision at the national level. Their brief program, titled "We Will Protect the Normal World", is limited to a set of bullet points with no explicit references to "ecology" or "environment". Only two of the bullet points briefly touch upon the issues. The first one is directed at environmental activism. "We protect nature for the people, not against them. Activists will not impose their decisions about bark beetles or citizens living in protected natural areas." Additionally, the program rejects any plans to limit car traffic through pedestrianization or bike lanes, presenting the automobile as a genuine conservative value and drivers as a disenfranchised group: "We will protect Czech drivers. Traffic must be fast and smooth above all" (*Program*, 2021a). There are very few additional mentions of environmental issues in the party's materials, which primarily focus on the Green Deal or the disapproval of environmental activism. One post from March 2022 called for action on environmental concerns: "All proposed and executed initiatives aimed at creating long-term environmental impact and shaping the future of generations to come, such as the Green Deal, require a thorough evaluation by both experts and the public. Objective analysis and assessment are essential in determining their efficacy and potential effects" (Štěpánek, 2022).

Further information on the party's environmental policies can be found at the level of its expert committees and individual representatives, who frequently express their views in blog posts or media interviews. As with other cases, right-wing populist politicians cannot disregard the living conditions of their constituents, who are frequently recruited from North Bohemia and Moravian Silesia's "rust belt". In a piece for the Eurosceptic online magazine *Parlamentní listy*, the regional leader of Trikolora, Petr Viktorýn, wrote: "Previous governments promised to recultivate the land and mitigate the effects of mining, but these commitments evaporated as the industry declined and mining companies left the area." He then continued to join the two key grievances of the region—environment and unemployment: "By repairing the ecological damage, our goal is to enhance the living environment in North Moravia and provide appealing investment opportunities in newly restored areas, creating hundreds of job opportunities simultaneously" (Viktorýn, 2020).

Figure 2: Jiří Mánek's (Trikolora) Facebook post: "Restoring and maintaining healthy green forests, preserving and protecting vibrant and healthy farmland and retaining water in the Czech landscape is the only Green Deal that makes sense to me."
Source: Mánek, 2020.

Writing on his personal blog, the chair of the party's Environmental Committee criticized the forestry industry in the Czech Republic. He warned against overexploitation of Czech forests for the benefit of foreign companies. He concluded that a Green Deal is not necessary so long as the nation keeps its own forests healthy: "Restoring and maintaining healthy green forests, preserving and protecting vibrant and healthy farmland and retaining water in the Czech landscape is the only Green Deal that makes sense to me" (Mánek, 2020). Mánek previously managed the Šumava National Park on the border with Bavaria but resigned in 2014 due to a dispute over managing the bark beetle outbreak in the park (Czech Press Office, 2014). A quote from his blog was used in the party's social media posts (see Fig. 2). The emphasis on promoting "healthy forests" on a national level, rather than implementing global measures, is a recurring motif in Trikolora's discourse. In her personal blog post from 2021, Radka Váchalová, a geologist at the South Bohemian University and Trikolora's "environment guarantor", discusses this emphasis: "The only Green Deal that makes sense to me these days is slowing water runoff from the landscape, maintaining biodiversity, improving soils, restoring and maintaining healthy forests, safeguarding water sources from contamination, and promoting food production" (Váchalová, 2021).

Unlike the SPD, Trikolora refrains from linking its criticism of the Green Deal to conspiracy theories, which are also significantly less prevalent in its discourse, outside of isolated remarks about: "progressive and globalist ideologies that are destroying the traditional world" (Majerová, 2022). What it does share with the SPD is the conservative, pragmatic, and nativist attitude to environmental problems, in which local issues are addressed and the transnational ones are played down. Nature is valued for its aesthetics, and protecting the environment is regarded as important for national security, including water security. However, this nature must also benefit the nation residing within it.

3. Alliance for the Independence of the Czech Republic

In 2023, the Alliance for the Independence of the Czech Republic (*Aliance za nezávislost České republiky*, ANČR) was formed by a group of eight far-right parties and five civic movements. ANČR seeks to establish independence for the country. This coalition aims to unite for the upcoming 2024 EU Parliament elections after a decade of internal conflicts and power struggles within the Czech far-right (Blaško, 2023). The eight participating parties included the Workers' Party of Social Justice (*Dělnická strana sociální spravedlnosti*), the former iteration of which was disbanded in 2010 by a court order for promotion of neo-Nazism (Pelcová & Güttler, 2010; Rozsudek NSS čj. Pst 1/2009 – 348, 2010), and the neo-Fascist

National Democracy, whose leader Adam Bartoš was handed two probation sentences in two separate cases for publication of antisemitic materials (Czech Press Office, 2020). Other members of the coalition included the anti-mask party *Hnutí PES*, along with the so-called Association of Creditors and Friends of Law, the ideology of which imitates the Sovereign Citizens in the US. The resulting coalition is a diverse mixture of fringe conspiracist platforms and movements, some of which cannot even be properly labeled according to the left-right scale due to their syncretic ideology combining left-wing and right-wing motives with quasi-spiritual esoteric content, close and akin to the QAnon movement. As of the time of writing this text, the entirety of the coalition has exhibited a potential for election success that barely surpasses 1.5 percent, based on the past electoral performance of all participating factions (Czech Statistical Office, 2023).

Both the National Democracy and Workers' Party have a history of utilizing eco-activism to advance their nationalist ideas. This is exemplified by actions such as trash collection, followed by the display of garbage bags adorned with nationalist and anti-immigration slogans (Tarant, 2020b, p. 210). Another coalition partner, National Youth (*Národní mládež*), is headed by Jan Sedláček, a landscape ecologist. He outlined his perspectives in a book manifesto, named "Climate Ideology versus Protection of Nature", wherein he contends that several contemporary policies concerning climate protection on a global scale are at odds with nature conservation (Sedláček, 2022a). In an excerpt from the book manifesto posted on the party's website, Sedláček argues that coal power plants are better for the environment than renewables because of their higher energy density and the positive effects of lignite mine re-cultivations (Sedláček, 2022b). Since climate change cannot be stopped, all measures should focus on adaptation, such as increasing the landscape's ability to absorb water (Národní demokracie, 2021). Conservative environmentalism is evident in the ANCR's dialogue on climate and the environment, which is also disseminated through their social media posts (see Fig. 3) and alternative YouTube channels: "The Green Deal would inflict more harm than good on the environment. It would strip the soil of its fertile humus and pollute the landscape with windmills and other "renewable" sources that are actually more detrimental to nature. There is no clear benefit for nature in implementing the Green Deal" (*Aliance za nezávislost ČR*, 2023).

At the level of individual coalition parties, conservative environmentalism may cross the threshold into conspiracy narratives. Vladimír Teťhal, a member of the Workers' Party, accused liberal democracy of being an artificial construct of a sinister globalist conspiracy in a commentary on the party's website:

"Liberal democracy is the most monstrous totalitarianism ever to appear on the blue planet. As for liberal democrats, there is nothing more disgusting than to see their true face through the lense of their own words and actions. […] Since gas chambers are no longer acceptable in today's

Figure 3: ANČR Facebook post, which reads: "The Green Deal is a crazy plan that would decrease the quality of life in the nation and ruin both our economy and our countryside. Don't let it happen! We must reject the Green Deal and the EU entirely."
Source: Aliance národních sil, 2024

conditions, artificially created pandemics, famines and economic shocks caused by activities like the Green Deal or the US-Russian war and the like will be used. Depopulation is also ensured by the cult of homosexuality, abortion, and euthanasia" (Tet'hal, 2022).

4. Conclusion

The populist right-wing and far-right parties concentrate on environmental concerns that their voters from regions affected by pollution can connect with. However, they deny global issues that appear distant and abstract to their base. These

parties appeal to voters who feel the direct effects of air and water pollution but worry about losing their factory jobs due to new environmental regulations. In contrast to the well-known motto of Agenda 21, "Think globally, act locally", right-wing populist ideology favors the approach of "thinking locally, acting nationally" (Tarant, 2020b). This phenomenon has been dubbed "far-right localism" (see also Benoist, 2023). It allows the far-right to acknowledge problems that can be handled at the national level, for example, water pollution or waste management, but typically leans towards denialism on a global scale, such as regarding climate change. Any form of international collaboration or responsibility towards neighboring countries is staunchly refused, particularly if it entails imposing limitations on the nation's economy, welfare, or consumption.

Conservative rhetoric from these parties might sometimes appeal to environmental experts and nature protection veterans who possess impressive knowledge in the field. However, they are also skeptical towards new developments within the field. These individuals contribute to far-right localism through their vocalization of "conservative environmentalism". In essence, this approach argues that while protecting nature is crucial, it must be done via the traditional, national approach exclusively. Conservative environmentalism posits that farmers, game-keepers, and foresters have a deeper understanding of their trade due to their connection with physical reality, unlike climate scientists who work in remote laboratories and are motivated by grants to produce confusing and seemingly contradictory charts. This dualistic view has been a common theme in far-right and right-wing populist discourse in the Czech Republic. Some of the activists even argue that the Green Deal may paradoxically become an environmental hazard, while the conspiracist fringe portrays it as a step toward establishing the globalist "New World Order"—a conspiracy narrative about the supposed plan of global elites to reduce European economies and populations. This is where far-right localism or conservative environmentalism can cross the line into eco-fascism, potentially resulting in self-radicalization with hazardous implications.

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Spain's Vox and the "Climate Culture Wars": The Role of Political Influencers on YouTube

Lluis de Nadal

Abstract

Climate change is emerging as a central battleground in the culture wars, with YouTube as one of its key arenas. This chapter focuses on the "Alternative Influence Network" (Lewis, 2018) surrounding Spain's right-wing populist party Vox, exploring how YouTube political influencers spread climate misinformation. Thematic analysis reveals a trend towards "post-denial" narratives that critique climate policy and the environmental movement, often through conspiracy theories and misogynistic undertones. These narratives intertwine with broader cultural conflicts, spanning from feminism and anti-racism to environmentalism. Amidst escalating opposition to green policies, the study sheds light on how these climate narratives deepen "us" versus "them" divides and conjure up feelings of resentment among young white males who see rapid cultural changes as threats to their traditional dominance and privilege. However, it also identifies potential common ground around shared environmental values and benefits like clean air.

Keywords: climate change; misinformation; populism; social media; YouTube

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The dangers associated with climate change have become more evident, yet the barriers to implementing effective solutions remain elusive. As much as the role of the "denial machine" in casting doubt on climate science for the benefit of fossil fuel companies has been thoroughly documented (Oreskes & Conway, 2011), the landscape of climate misinformation has grown more complex. What was once primarily the arena of institutional players like conservative think tanks and media outlets, now coexists with subtler contrarian and delay strategies disseminated across a more fragmented and decentralised media landscape. Nowadays, bloggers, online influencers and even automated bots contribute to the propagation of deceptive narratives, taking advantage of digital platforms to spread misleading narratives at an unprecedented speed and scale.

In the following chapter, I turn attention to a loose coalition of "political influencers" (Riedl et al., 2023) that has coalesced around Spain's right-wing populist party Vox, notorious for dismissing climate change as a "hoax." With the repercussions of climate change becoming increasingly undeniable, Vox has undertaken an "environmental turn," a shift which mirrors similar developments among its European counterparts (Aronoff, 2019). While not always consistent, Vox's environmental discourse aligns with "green patriotism" (Schaller & Carius, 2019), which largely accepts climate science but opposes international climate agreements as vehicles for a globalist, elitist agenda. The party's innovative use of social media platforms to sidestep negative coverage from traditional media, coupled with its appeal to a younger demographic and connections to global disinformation networks (Applebaum, 2019), underscore the significance of this case for the study of online climate misinformation.

The findings of this study corroborate the transition toward "post-denial" narratives within the European populist right. Rather than challenging the scientific basis of climate change, the YouTubers examined here focus their criticism on the green transition, often employing well-known contrarian and delay narratives as their rhetorical tools (Coan et al., 2021; Lamb et al., 2020). They also accuse "climate elites" of using "alarmist" language to manipulate public opinion whilst themselves maintaining carbon-intensive lifestyles. These findings reveal a complex landscape wherein climate narratives and cultural battles are deeply entwined, suggesting existing divides in climate discussions may stem not only from policy disagreements but also from a rejection of a so-called "woke wave" undermining Western civilisation.

1. Vox, a Threat to the Green Transition

Founded in December 2013 during a tumultuous period marked by political instability, economic difficulties and Catalonia's push for independence, Vox emerged as a radical right-wing alternative to Spain's established conservative party, the Popular Party (Partido Popular) (Barrio et al., 2021). Vox burst onto the scene by capturing eleven percent of the votes in Andalusia's 2018 regional elections, a result that marked the first occasion a right-wing populist party won legislative seats in Spain's post-Franco era. In the 2019 general elections, Vox increased its foothold, securing 15 percent of the vote and becoming Spain's third-largest party. Further cementing its political status, Vox has since tripled its presence in local councils—from 3.6 percent in 2019 to 7.2 percent in 2023—and successfully formed coalitions with the PP in multiple Spanish regions.

Vox finds its ideological bedrock in Spanish nationalism, exhibiting a strong aversion toward regional identities such as Catalonia and the Basque Country (Barrio et al., 2021). Immigration, framed as a driver of crime and social instability, is another nodal point in Vox's agenda. On the economic front, Vox subscribes to neoliberal orthodoxy, endorsing tax cuts and limited government involvement in social welfare. On social issues, Vox champions traditional values, often rooted in religious beliefs, and opposes what it labels "gender ideology," including LGBT rights and feminism (Alonso & Espinosa-Fajardo, 2021). Notably, Vox's message has struck a chord with young male voters who constitute its primary voter base (Navarro, 2020).

Vox's climate discourse is predominantly associated with denialism (Maza, 2019). Borrowing from the Trump playbook, Vox went so far as to dismiss climate change as a "hoax." Closer examination, however, reveals a more nuanced and sometimes contradictory position (de Nadal, 2021). While certain Vox representatives have questioned the prevailing scientific consensus on climate change, others within the party openly affirm its reality and anthropogenic origins (Hanson, 2023). Official party communications often tacitly recognise global warming by endorsing renewable energy and carbon capture technologies as effective strategies to reduce carbon emissions. Yet, at its core, Vox's primary point of contention is not the scientific underpinnings of climate change but rather the policy measures designed to address it. These are systematically portrayed as elitist impositions which threaten national culture and sovereign integrity.

Vox's environmental position reflects a larger trend seen among Europe's right-wing populist parties, which often back initiatives like renewable energy and clean air but are resistant to international cooperation (Schaller & Carius, 2019). It is tempting to pigeonhole these parties as climate deniers, a characterisation often arising from their deep-seated suspicion of the intricacies of

climate science and the motives animating the environmental movement (Lockwood, 2018). Nevertheless, some of these parties do acknowledge the human influence on climate change and its potential risks. They espouse a kind of "green patriotism," a discourse that favours environmental protection for the sake of national interests (Schaller & Carius, 2019). According to Turner and Bailey (2022), a "discursive shift" is underway within the European far-right milieu away from outright denialism and toward what they label "eco-bordering," a narrative construct that ascribes ecological degradation to immigration and endorses stringent border controls as an environmental strategy. It is important to note that this shift is often more rhetorical than substantive, as analysis of party manifestos shows populist radical right parties in Western Europe are generally less committed to climate protection (Schwörer & Fernández-García, 2023).

Indeed, these parties pose a formidable challenge to environmental sustainability: Lockwood and Lockwood's (2022) research indicates these parties' strong ability to disrupt climate initiatives, especially when in positions of power, a prime example being the US withdrawal from the Paris Agreement. Vox has proposed to dismantle existing environmental measures in municipalities where it holds power in coalition with the Popular Party—case in point, the call for the removal of bicycle lanes (Burgen, 2023). This is consistent with a larger, Europe-wide backlash against environmental policy, affecting a wide range of initiatives from ultra-low emissions zones to farming regulations (Meyer & Langengen, 2023). Cities like Copenhagen, historically lauded for their environmental stewardship, are reconsidering their previous commitments to carbon neutrality (Di Sario, 2022). This "greenlash" suggests that right-wing populist parties, which have consistently opposed such policies, could find new avenues to expand their support base (Meyer & Langengen, 2023).

Much scholarly focus on right-wing populism and climate discourse has been on party rhetoric, often overlooking the media's role (Vowles & Hultman 2021). An exception is Forchtner et al.'s (2018) study on the German far-right's articulation on climate discourse in magazines. Academic literature is even scarcer via online media, but early findings point to YouTube as a key platform for anti-mainstream climate narratives. For instance, Swedish far-right publications often cite YouTube channels as authoritative sources for their climate claims (Vowles & Hultman, 2021; see also Richards et al., 2022).

Vox and its political network are a relevant case study for understanding how social media platforms are used for disseminating climate misinformation, not least because of the party's effective use of these platforms (Barrio et al., 2021; Miro & Toff, 2022). Initially on the margins with scant public media visibility, Vox successfully used social media and messaging services to connect with potential supporters. Notably, Vox leads among Spanish political parties in terms of en-

gagement metrics on Facebook and X and boasts the largest YouTube subscriber count (Rodríguez-Rata, 2020). This is particularly significant given the global shift in media consumption habits, where platforms like YouTube are becoming the primary news source for younger audiences.

Vox's relevance as a case study is heightened by its involvement in global disinformation operations. Reports indicate a disproportionately high propensity for Twitter bots aligned with Vox to disseminate content from websites known for conspiracy theories and highly partisan articles (Applebaum, 2019). Moreover, an emerging "Alternative Influence Network" (Lewis, 2018) has coalesced around Vox, loosely connecting dozens of political influencers who either directly or indirectly endorse the party and its ideology. Leading Spanish newspaper *El País* has pointed out the intersection between this network and the spread of climate contrarian views, noting that several of its members actively campaign to undermine environmental activism (Peinado, 2021).

2. Methods and Data

The role of political influencers on YouTube merits in-depth examination. The platform is not only a growing source for news but a gathering place for far-right groups and white males, who are often identified as primary disseminators of climate misinformation and opponents of climate action (Munger & Philips, 2022; Newman, 2023). Despite this, current research on online climate misinformation has disproportionately focused on Facebook and X (Pearce et al., 2019), leaving YouTube largely understudied.

To fill this gap, I conducted a qualitative analysis focusing on "political influencers" (Riedl et al., 2023) in the Alternative Influence Network associated with Vox, examining their climate-related narratives on YouTube. I excluded channels primarily devoted to non-political topics like business advice or gaming. Eligibility for the study did not require explicit endorsement of Vox; channels only needed to be cited in journalistic accounts as nodes in a network of "YouTubers" ideologically aligned with Vox on issues like gender, immigration and the economy (e.g., Galaup, 2023; Peinado, 2021; Pérez Colomé, 2023). I initially collated a list of relevant channels media reports, refining it to meet the study's criteria. To ensure a minimum of public reach and impact potential, I set a lower limit of 100,000 subscribers, resulting in a total of 15 channels meeting these criteria.

In the next stage, I examined video metadata for the chosen channels, focusing on videos where "climate" appeared in the title, tags or descriptions, but eliminating those discussing "climate" in unrelated contexts. This reduced the initial 15 channels to twelve, nine male-hosted and three female-hosted. The number of

relevant videos on these channels ranged from one to 32, and the lengths varied from one-minute clips to two-hour live streams. For channels with more than five relevant videos, I selected the five most-watched to create a balanced dataset. The final dataset comprised 38 videos.

In the analysis phase, I used thematic analysis (Braun & Clarke, 2012) to explore how the political influencers articulated their views on climate change. Post-transcription, I identified key themes and recurring patterns, shedding light on their individual stances and how these intersect with their broader political agendas.

3. The "Climate Culture Wars" on YouTube

The study's findings, based on thematic analysis of climate-related content from twelve prominent political influencers orbiting Vox, echo the party's transition to a "post-denial" stance. Except for one outlier, all of them at least implicitly acknowledge the reality of climate change. Although the sample does include a range of narratives advocating delay or offering contrarian viewpoints, outright denial is conspicuously missing. This calls for caution in using the umbrella term "denialist," as it is often imprecise and could foster a sense of victimisation among far-right and populist communities who feel unfairly marginalised or "cancelled." Such labelling could exacerbate divides and transform media coverage into a blame game, preventing constructive dialogue among climate science, society and policy (see O'Neill & Boykoff, 2010).

The term 'post-truth' (see McIntyre, 2018) presents its own set of complications, as it risks painting populist movements with a broad brush, implying a universal disregard for rationality, evidence and expertise. Historically, populism has been associated with a distinct epistemology that privileges folk wisdom, suggesting that ordinary people's day-to-day experiences give them a unique, if not superior, insight into truth (Rosenfeld, 2011). Drawing on this epistemic frame, a study analysing climate change narratives in popular media identifies a "populist" climate change discourse which dismisses alarmist views by invoking "common sense" on behalf of the sane majority (Ereaut & Segnit, 2006). According to the authors, this framing strategy prevents meaningful dialogue by elevating intuition over reasoned deliberation.

In contrast to this stereotype, the YouTubers analysed in this study fashion themselves as rational antidotes to dominant emotive and "apocalyptic" climate narratives, grounding their arguments in scientific evidence as they challenge what they see as politicised interpretations of climate science. This finding aligns with studies on online populist communities, which highlight the use of "coun-

terknowledge," uttressed by alternative researchers a common tactic to challenge mainstream policies (Ylä-Anttila, 2018; see also Marwick & Partin, 2022). This chapter thus challenges the prevailing notion that populists inherently favour folk wisdom over expert knowledge, while also bringing attention to the sophisticated strategies populist actors employ to co-opt scientific authority for their own credibility. These findings suggest that rather than outright rejecting science, populist communities may selectively embrace scientific rhetoric and methodology to legitimise their arguments, a nuance that holds significant implications for the field of climate communication.

The study's findings also resonate with research noting a shift in online climate misinformation, from disputing the science to attacking solutions (Coan et al. 2021, p. 3). The YouTubers examined raise three main criticisms of climate policy. First, they highlight the potential negative impacts on individual liberties and the economy, often incorporating "whataboutism" (Lamb et al., 2020) to question the West's leadership in carbon reduction as other countries like China and India lag behind. Second, they argue that the unpopularity of green policies creates obstacles to their successful implementation, necessitating authoritarian measures. Third, they stress the inefficiency of government-led solutions, advocating instead for market-driven solutions and technological progress as the most effective means to address climate challenges.

Besides criticising climate policies, these political influencers commonly point out instances of "hypocrisy" in order to discredit the broader climate movement. They are particularly keen to expose discrepancies between the public, eco-friendly messages of high-profile climate advocates like Leonardo DiCaprio and their own carbon-intensive lifestyles. Another line of attack targets the "alarmism" prevalent in mainstream climate discourse. They often resort to conspiratory theories, alleging that elites use doomsday narratives to manipulate an already anxious public. This adds another layer of complexity to existing assumptions about the "post-truth" age, in which populist actors are typically seen as favouring emotional appeals over rational arguments. From their own vantage point these YouTubers are not the exponents of "post-truth" but rather its antithesis: they cast themselves as beacons of reason in an ocean of emotionally-charged "fake news" actively working to expose the deceptive manoeuvres employed by elites.

Certain arguments advanced by these actors raise valid concerns about the fairness of the green transition and should not be hastily dismissed as "misinformation." Their critiques often resonate with those of movements like the Yellow Vests, particularly concerning the impact of green policies on average citizens. Criticisms of affluent environmentalists for falling short of their public statements are also widespread (Klein, 2020). Even the conspiracy theories they

promote warrant careful scrutiny; dismissing them as irrational or "paranoid" (Hofstadter, 2012) could overlook the underlying motivations for such beliefs. The COVID-19 pandemic has shown that in contexts of limited information—such as online echo chambers around climate change—conspiracy theories may function as coping mechanisms, enabling individuals to maintain their belief structures in the face of uncertainty (Douglas et al., 2019). The secretive nature of gatherings between so-called "green billionaires," such as those in Davos, also provides fertile ground for the proliferation of conspiracy theories. In democratic societies, claims to exclusive knowledge by an educated elite often trigger scepticism, particularly if seen as a tool for reinforcing class privilege. Relegating populist conspiracies to "paranoia" risks neglecting the broader political implications they may hold.

Nevertheless, these YouTubers do disseminate multiple misleading claims, consistent with well-documented contrarian and delay narratives (Björnberg et al., 2017; Coan et al., 2021; Lamb et al., 2020; Rahmstorf, 2004). While they raise valid concerns about the financial implications of climate policies, their portrayals are often one-sided, fixating solely on the downsides of a green transition while neglecting to consider its potential benefits. Their "whataboutist" arguments often serve to sidestep immediate avenues for climate engagement, implying that responsibility should be deferred until others take the initiative. Their advocacy for free-market and technology-based solutions, often bordering on "techno-utopianism," promotes "non-transformative" (Lamb et al., 2020) solutions which reinforce existing power dynamics and justify unsustainable practices (Shaw, 2023). Criticisms against rising taxes on air travel as inequitable are also incomplete, as they fail to account for the progressive nature of green taxes. Similarly, their allegations of "alarmism" selectively ignore a plethora of accurate past climate projections, as well as estimates that understate the actual severity of climate change.

This study not only highlights the proliferation of climate misinformation on YouTube but also the link between climate issues and broader identity and grievance politics (see King et al., 2022). This connection is apparent in how certain influencers depict climate change advocacy. They label it as "the new feminism"—a trend they perceive as catering to elite interests—and express concern over a perceived "woke" surge in environmentalism. These portrayals lend credence to arguments that climate change is becoming the next front in the culture wars (e.g., Counterpoint, 2021; Ruser & Machin, 2019). This is substantiated by the overt misogyny that permeates critiques of the environmental movement. Public figures who are synonymous with climate advocacy like Greta Thunberg and Alexandria Ocasio-Cortez are disparagingly labelled as "hateful" and "grotesque." The acrimony transcends mere name-calling, with some com-

ments even advocating physical harm, such as suggesting that climate activists "deserve a slap in the face." These findings suggest that climate contrarianism extends beyond mere policy disagreements, stemming instead from a sense of alienation within a subset of white males who feel threatened by cultural shifts they strongly oppose.

Earlier research has explored the links between conservative white males and climate denial, attributing this connection to the inclination among this group to maintain existing social, political, and economic hierarchies (for review, see McCright & Dunlap, 2011). This study echoes the "white male effect," as nearly all sampled influencers identify as white males. However, it suggests that the category of "climate denial" does not fully capture the range of their views. The analysis shows these influencers focus mainly on critiquing policy solutions and the climate movement, while also enhancing the emotional resonance of their arguments by embedding them within a broader culture war narrative. This strategy allows them to reach beyond the usual sceptical audiences, particularly as outright denial becomes increasingly unfashionable. It also positions them to attract younger conservative males—a significant portion of YouTube's user base—who may be more attuned to the consequences of climate change than older generations (see Lawrance et al.,2022).

The interplay between climate discussions and culture war tropes reveals a paradox. These YouTubers present themselves as rational thinkers and condemn environmentalists for their emotional appeals, yet they simultaneously craft emotionally charged messages that conjure up feelings of resentment. While they may not explicitly embrace populism's preference for "common sense" over expertise, their rhetoric carries strong populist undertones—especially when casting climate sceptics as the beleaguered truth-tellers in a discussion monopolised by elites. Here, the goal subtly shifts. It is no longer about enriching public understanding of climate complexities but about sharpening divisions between "us" and "them." As a result, what emerges is less an objective analysis of the issues and more a "deep story" (Polletta & Callahan, 2019) that furnishes the raw materials for constructing a political "common sense" that conveniently supports the status quo.

The environmental movement may have found comfort in the notion that consensus on climate change facts would naturally lead to unified action. This belief is largely based on the "information deficit" model, which suggests that additional information can resolve disputes over science and policy, while underestimating the role of culture in how information is processed (see references to Norgaard, 2011; Lewandowsky, 2021). However, the discourse from these YouTubers suggests that bridging existing differences requires more than just "fact checking" and cultivating media literacy. Even the crucial task of cataloguing and debunking—and

"prebunking" (Cook et al., 2017)—obstructionist arguments is only part of the solution. Although all these approaches hold undeniable value, achieving genuine consensus also requires probing the cultural contexts that render climate misinformation appealing to begin with.

Meanwhile, the prospect of finding common ground emerges when considering pro-environmental values and practices that transcend political divides. While hostile to mainstream climate agendas, many of the influencers examined here genuinely value nature and sustainability. They often advocate for eco-friendly behaviours and support initiatives like ultra-low emissions zones, driven not by apocalyptic fears but by a sense of civic responsibility towards environmental protection. This suggests that instead of dismissing these groups as "denialists," it may be more effective to focus on our shared ethos of environmental care. Highlighting the economic benefits and job opportunities within green industries could also incentivise collective action. Moral admonitions from affluent climate advocates, however, are likely to fall flat. As previous research in science and technology studies has shown (Wynne, 1996), resistance to mainstream policies often arises from intricate social identity factors, leading to a repudiation of the groups associated with such policies. Therefore, discerning the shared values that these influencers appeal to is crucial.

4. Conclusion

Research to date has examined the relationship between populism and climate change from the perspective of political parties, largely overlooking the role of the media. This chapter has addressed this gap by examining how an eclectic mix of YouTubers orbiting Spain's Vox party spread climate misinformation, offering insights potentially applicable to similar networks worldwide. It is plausible that the patterns observed around Spain's Vox party may serve as a microcosm for broader, international phenomena in the interplay of populism and climate discourse.

This case study enriches our understanding of the broader context of climate obstruction by shedding light on the proliferation of a more nuanced form of resistance, one that acknowledges the science but questions green transition policies and seeks to undermine the credibility of the broader climate movement. As climate change impacts become harder to deny, this form of "post-denialism" becomes particularly insidious as it has the potential to attract a more engaged, younger demographic audience who might otherwise be inclined to support climate action. These findings serve as a reminder that climate obstructionism is neither monolithic nor static but varies across national boundaries and adapts to emerging social and political contexts. Appreciating the divergences in how cli-

mate change and its potential solutions are resisted is essential for developing more effective strategies to break down barriers to understanding and action.

Moreover, the study underscores the limitations of using labels like "post-truth" or "denialist" in understanding the complexities of climate misinformation in populist settings. The YouTubers examined here practice a selective rationalism, engaging with scientific evidence but framing it to tap into widespread feelings of resentment and anti-establishment anger. This form of resistance complicates efforts to counter misinformation. While conventional corrective measures like fact-checking and media literacy have their role, the study suggests these are not enough on their own. It becomes imperative to also address the underlying fears and anxieties that render climate misinformation appealing in the first place, particularly among a subset of the white male demographic group who see rapid cultural changes as threats to their traditional dominance and privilege.

Future research could explore the connections among YouTube political influencers, the broader media landscape and the policies and discourse advanced by political parties. While the term "online misinformation" might suggest a phenomenon confined to the digital realm, it is in fact closely tethered to political rhetoric, particularly to populist rhetoric (Graves, 2021). Acknowledging this connection is crucial for tracing the origins of these narratives and understanding their impact on public opinion, a pressing issue given the growing resistance to climate policies among the populist right and wider public.

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Countercultural Denial in the UK: "New" Social Movements?

Victoria Esteves

Abstract

Climate change is a divisive issue within the United Kingdom, as policy and popular rhetoric circulating within England and Scotland can be at odds with one another. Whilst climate denial is problematic, it is by no means the first form of denial in the broader British cultural sphere. In order to comprehend climate change denial fully, it is useful to gain an understanding of denialism itself as it operates in the UK more broadly, including other sceptically ideological movements, both recent and historical. Ecologies of the Right go some way towards explaining these converging tendencies; however, postmodern deconstructionism—which has left-wing origins—also seems to permeate these sceptical lines of thought. Additionally, postmodernism itself has been adopted by right-wing nationalism (Wolin, 2019), evidencing that it might be more productive to think beyond current political alignments in order to understand climate denial more wholly.

Keywords: climate denial; United Kingdom; counterculture; identity, postmodernism

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As climate change continues to unfold under an almost unifying consensus amongst scientists (Cook et al., 2016), this unanimity is not necessarily reflected in broader society. Whilst science can often leave little room for interpretation, culture is organic and does not operate within the same rigid principles. One of the biggest issues we currently face in relation to climate change is no longer an uncertainty in terms of where we stand ecologically, but instead the difficulties we encounter in relation to socio-cultural barriers that impact attitudes towards and acceptance of climate realities. The United Kingdom is a particularly interesting site of analysis in relation to attitudes and understandings towards climate change, as it is composed of a number of different nations with varying socio-cultural realities and policies, which results in differences in climate change beliefs. In addition to this, Britain has historically been the site of complex negotiations in terms of culture and countercultural movements.

Resistance to climate realities has led to the growth of countercultural movements of climate denial, which can be placed in broader frameworks of denialism that have been circulating concurrently, namely the anti-vaccination and flat-Earth movements. In order to provide a more thorough understanding of climate denial, this chapter will look at other countercultural movements, particularly those centred around denialism or rejection of truths more accepted by the mainstream. This will be achieved by looking beyond the political binary that often permeates these discussions, focusing instead on the socio-cultural logics in operation, whilst making use of postmodern theory for added conceptual clarification. In order to do this, we should examine how different forms of postmodernist countercultural movements can exist within different political persuasions, namely left-wing counterculture, right-wing anti-movements, and denialist movements. This chapter will also be looking at the British context in relation to climate denial (Cook et al., 2016), considering the differences between England and Scotland more specifically, whilst also taking into account British histories of counterculture and countermovements.

The British Context

Whilst the UK features as an important ecological player within the European landscape, looking at climate change in a comprehensive manner within it can be challenging. Climate change perceptions and policies are often tied to socio-political contexts, and these provide variations amongst the different nations that form the United Kingdom. Although both part of the British union, the political and social landscapes differ considerably between Scotland and England, a differ-

ence which extends into positions and attitudes on climate change. Oil, agriculture, and renewable energy through windfarms are some of the central aspects of discussion within the British context of energy and climate, which I will explore briefly below.

Part of this discrepancy between the British nations stems from concrete differences in physical geography, as Scotland possesses oil reserves. The presence of these oil reserves can overshadow the climate discussion in Scotland in a way that is not as prevalent in England—whilst the production of British oil is something that affects all British nations and influences British policy more broadly, oil production is a much more physical reality within Scotland, which translates into its heavy presence in Scottish climate debates (Dinan et al., 2024). In addition to the oil industry, it is worth noting that the considerable presence of agriculture within the nation also shapes this discourse. Whilst these lived realities are discrepant within both nations, the limited powers Scotland possesses in relation to the governing bodies in Westminster (England) result in a complex and at time fractious socio-politics between both nations. Beyond these tangible differences lies a marked divergence in political leanings between Scotland and England. I have co-written about these disparities at length elsewhere (Dinan et al., 2024).

Wind turbines are also an increasingly present area of discussion within the UK, with renewable energy being rapidly scaled up within Scotland in particular, where the production of renewable energy has more than doubled within the last ten years (Scottish Government, 2023). With this growth in wind investment also comes resistance and protest from those opposed to the expansion of renewable energies, most notably through groups like National Opposition to Windfarms. On a rudimentary level, wind turbines are a strong visual battleground in relation to climate change issues, as they give the abstract discussion of climate change a much more physical dimension. Symbols and physical embodiments are important when it comes to the public imagination of seemingly conceptual issues, as it can become difficult on a personal level to grasp such abstract and large-scale phenomena as climate change. The importance of visual communication (and imagination) within the topic of climate change has been the subject of previous publications (see Nerlich & Jaspal, 2014), which could go some way in explaining this backlash against windfarms.

Media representation also plays a significant part in shaping the British public's understanding of climate issues. Although in decline, newspapers still hold a powerful place within the British public fora, constituting a notable presence within British public sphere. This becomes particularly problematized with the inclusion of opinion pieces within newspapers; when opinion is presented alongside factual information, it becomes particularly difficult to distinguish between them. It is thought that this blending of writing styles has also contributed sig-

nificantly to climate scepticism, as noted by research into two British right-wing newspapers (Painter, 2011). Whilst the media may be one of the aspects at play within the complex issue of the formation of climate denial within Britain, it operates within a wider context of denialist rhetoric, which I will discuss further below.

Counterculture in the UK

Having gained a broad understanding of the current British context in relation to climatic issues, I now turn my attention to the role of counterculture within the UK. To gain a keener grasp of current counterculture in Britain, it is useful to provide some historical context around it. Following in the footsteps of other Western countries, Britain saw considerable socio-cultural changes in the sixties, where grassroots and countercultural movements began to form. Much like the countercultural movements taking place in the US, British countercultural movements of the twentieth century are commonly associated with the desire to advance civil rights, which in turn often falls under Left-leaning agendas. Earlier socio-political studies have mapped climate change positioning and beliefs with political alignments, though this has become increasingly complicated in more recent years: political belief no longer seems to be a foolproof indicator when it comes to personal understandings and beliefs relating to climate change (Mortoja & Yigitcanlar, 2022). In turn, this ultimately shows a divorce between countercultural movements and its historical trajectory in relation to political leanings, complicating further our current understanding of counterculture as a whole. Much like the parallels that can be drawn between twentieth century countercultural movements in the UK and the US, there are considerable similarities between North American climate change denial and British climate denial. This often results in cross-pollination between main actors on both sides as prominent British deniers work closely with American conservative think tanks, and likewise, renowned American denialists feature in British media (Garrard, 2019, p. 41).

The push and pull that occurs between movements and countermovements within the UK can also be seen in other socio-civil issues that precede climate discussions by decades: the same way groups formed for ideals of feminism, racial equality, and queer rights, countermovements were also formed in order to protest these same ideals—though literature has underlined the limitations of this binary framing of culture (Kováts, 2018). These countermovements are often predicated on ideas of rejecting the advancement of human rights in order to

battle a perceived threat against the current status quo, particularly in relation to minorities as threatening to these ideals (Selvanathan et al., 2021). Other parallels can be drawn between climate denial groups and these civic countermovements, principally in terms of their nuances. As established in the literature, not all climate denial operates on the same level of belief: whilst some climate deniers refute all scientific truths around climate change, the overall reality of the denialism picture shows a much more varied and diluted set of beliefs (Shue, 2023). This kind of complexity is also prevalent in relation to older civic-social movements: whilst there are blatant misogynistic, racist, and homophobic countermovements, society also contends with a broader and more subtle form of resistance when it comes to civil rights. More nuanced views of sexism, racism, and homophobia also prevail alongside these more vocal and organised groups, which arguably can become more insidious as they are less open to detection (Sue, 2010). Equally, as aforementioned, outright climate denial is waning, instead being replaced by a more diluted stance (e.g. climate delay); which once again, denotes a similarity in pattern in relation to older countercultural movements.

Scientific Countermovements

Whilst we often think of countercultural movements as linked to ideas around society and culture, these can also take on a more scientific nature through the form of scientific countercultural movements. Much like their civil counterparts, scientific countercultural movements are also not new within the British context: in the sixties, the anti-psychiatry movement was led by British-based figureheads, notably R. D. Laing and David Cooper (Wall, 2018). The movement was formed by psychiatrists who yearned for a revolution in the field, and although the name implies a rejection of psychiatry as a whole, the movement wanted *distance* from psychiatric institutions and the way they operated rather than the entire discipline itself (Wall, 2018, p. 2). Anti-psychiatry was, then, more concerned with structures of power and institutionalisation, and although it called for radical changes in both approach and understanding of mental illness, it did not (for the most part) deny its existence (Wall, 2018, p. 2). This is one of the aspects in which British anti-psychiatry differs from climate denial, as the former was mostly preoccupied with the recontextualization of psychiatric afflictions, whereas the latter includes negating the existence of climate change.

Another salient difference between these two movements relates to the forces behind them. Whilst the anti-psychiatry movement was led by psychiatrists themselves—that is, professionals within the psychiatric field with both theoret-

ical and working experience in the arena—climate denial groups are (arguably) mimicking grassroots movements. However, it is worth noting the lobbies that fuel these movements, creating what is known as astroturf groups, which consist of groups "generated by an industry, think tank, or front group, but disguised to appear as a spontaneous, popular 'grassroots' effort" (Dunlap & McCright, 2011, p. 154). Astroturf groups have been associated with right-wing politics, and have been noted to exist within the context of denialist climate change groups (Cho et al., 2011). After the rise of Leftist grassroots cultural movements in the sixties, the Right realised the potential that this tactic had; and thus, also began co-opting the processes and logics of these Left-leaning groups through astroturfing. Consequently, whilst counterculture has often been thought of as a Leftist hallmark, the Right (or the New Right) has also started to mimic and embrace a sense of resistance to the mainstream that the former embodies. This in turn also works to undermine the legacy of the Left whilst simultaneously using its own discourse against it (Bures, 2020, pp. 29–30). In this social sense, climate denialist movements that do not fall under astroturf groups are much closer to our conception of counterculture as a form of bottom-up rebellion against established culture. Once more, this complicates our historical understanding and cultural narrative around what a countercultural movement is.

Whilst climate change denial is unsettling, it doesn't exist in a vacuum, it exists within a broader cultural context. Global warming denial is not the first of its kind in terms of socio-cultural issues that undermine science: this is also true of other issues like vaccination and whether the Earth is flat, although these have varying degrees of impact and traction. Thus, in order to understand climate denial more broadly, it is useful to take a macro look at the broader landscape of scepticism. With this in mind, it's useful to gain an understanding of denialism itself as it operates in culture more broadly, including the kinds of tactics and rhetoric that pervade other sceptical ideological movements that have gained popularity in more recent years. By looking at aspects of identity formation and negotiation across these ideologies, as well as their tactics and communication patterns, we are able to link these processes of denial across different socio-cultural discussions.

Scientific Countermovements in the UK

Although climate denial groups are more widely popular within the US (Dunlap & McCright, 2011), they also have a considerable presence within the UK. Within the UK, 4 percent of the population does not believe climate change to be real, whilst

14 percent believe it is occurring but not due to anthropogenic reasons (YouGov, 2024). Here it is important to acknowledge that a more nuanced understanding of climate denial has been evident as of late: outright climate denial seems to be waning, being instead replaced by climate delay (Shue, 2023). Whilst the former refuses to acknowledge that climate change is taking place (or refuses to acknowledge that it is taking place at the speed and severity that it is), the latter consists of allowing for an admittance that climate change may be happening, but the solutions proposed to tackle it keep being pushed down the line, leading to inaction in the immediate term. However, despite climate delay being a more palatable option in polite society, climate denialism still remains alongside it.

The three most popularized forms of science denial within Britain are climate denial, the anti-vaccine movement, and flat-Earth believers—an indication of this is present in a YouGov poll on conspiracy theories, which listed these three as the very first topics (YouGov, 2019). I posit that an understanding of concurrent denialist movements is useful in relation to climate change denial, and will explore these differences and similarities here. The anti-vaccine movement in the UK is not recent but has become particularly prominent since the COVID-19 pandemic, when vaccination became a central issue within society. Although it has become a much more prominent issue since the COVID-19 pandemic, anti-vaccination rhetoric has been present within British culture since the nineteenth century (Beck, 1960, p. 310). Despite the context and even illnesses varying widely between then and now—smallpox was the main concern at the time rather than coronavirus—there is still resonance in both forms of opposition: both echo a concern in relation to perceived governmental threats on personal choice (Beck, 1960, p. 311). This touches upon ideas of personal freedoms, and by extension, personal identities; as a consequence, this thought pattern leads to adopting a conduct (i.e. resist or reject vaccination) that may not only affect others, but can have a direct effect on those who are vaccine hesitant:

> "when an individual's sense of behavioral freedom is threatened, the individual is motivated to restore the perceived loss of freedom by psychologically and behaviorally rejecting the behavior, even if the behavior may be in their best interest." (Resnicow et al., 2021, p. 2)

In short, the perceived gains in terms of personal freedom that come with resisting vaccination might outweigh the consequence of illness to their own selves and others. Parallels can be drawn here in terms of vaccine hesitancy and climate deniers, where in both cases, preference is given to the preservation of a perceived sense of personal freedom in lieu of actionable change, a change that is seen as being imposed by higher political powers. A hierarchy of importance begins to form within the internal logics of both climate deniers and anti-vaxxers, one where the

(mostly abstract) thought of societal peril is less tangible than the sense of loss of freedom, particularly in the face of political agendas.

Returning the focus to British climate deniers in particular, Garrard evidences this identity-based struggle by saying that "the most consistent feature of British climate sceptics' identities [is] as 'heretics' contesting an oppressive politico-scientific orthodoxy" (Garrard, 2019, p. 43). A countercultural stance thus begins to form within this perceived sense of oppression, which echoes with ideas from civil movements within the Left, but is finding expression through ideas often associated with the Right. Whilst stances reflecting anti-ecology and anti-vaccination usually fall within right-wing politics, the complexities within denialist groups are made up of a variety of motivations and even differing beliefs (political or otherwise), but they nevertheless are able to piece together a reality in which denial is the outcome. In short "the diverse elements of the denial machine are able to work in a compatible and mutually reinforcing manner even when their efforts are not necessarily coordinated" (Dunlap & McCright, 2011, p. 144), politically or otherwise. Similarly, anti-vaccination rhetoric has gained popularity within right-wing politics, but has also shown traces of adoption from Left grassroots movements (see Debus & Tosun, 2021). This is particularly evident through the public protests against vaccination that have taken place throughout the COVID-19 pandemic, as well as the use of the slogan *My body, my choice*. Although this slogan is used as a way to highlight personal choice around vaccine mandates, it is most well-known as a slogan that emerged from grassroots movements during pro-choice protests in relation to infringements on reproductive rights (Rulli & Campbell, 2022)—which, in turn, is associated with Leftist politics.

Finally, flat-Earth proponents also exist within the UK, with 3 percent of British citizens stating this as either definitely true or probably true (YouGov, 2019). Despite having less prominence in discussions around denialism, I believe it is relevant to briefly address this set of beliefs because of both its similarities and differences in relation to climate change denial and vaccine rejection. There seems to be a stronger overlap between climate change denial and anti-vaccine movements, as both these beliefs hinge on similar aspects of denial: namely a scepticism in relation to established science and a perceived threat to personal freedom in relation to structural powers (i.e. governments, etc.). There is also an added layer of identity politics that pervades both camps, as their proponents find, in these groups, a way of feeling a sense of belonging that shapes their understanding of self, usually reinforced in online spaces (Bloomfeld & Tillery, 2019, p. 25). On the other hand, flat-Earth belief is considered more niche and removed from the more mainstream forms of countercultural belief. This is partly due to one of the main underlying arguments for flat-Earth belief, which draws support from fundamentalist biblical arguments (Paolillo, 2018) and thus has

more religious connotations than climate denial or vaccine resistance. Although religious arguments can at times be used to back up climate denial and anti-vaxx ideas, this is far less common, and seems to be a lot more present within the flat-Earth rhetoric. This difference of flat-Earth conviction also demonstrates that denial is not simplistic and although it can have similar mechanisms behind it, there are also other variables at play which can make it difficult to map denial across different beliefs.

Although all three issues (e.g. climate change, vaccination, the Earth's layout) have some sort of a physical dimension to them (i.e. anthropomorphic climate change has led to profound weather changes and ecological disasters, lack of vaccination leads to sharp rises in mortality, flat-Earth relates to the debate of the Earth's physical arrangement), they are all also composed of considerably abstract notions. It is difficult to understand the severity and scale of climate change on a personal level, just like it is difficult to conceptualize how a vaccine can tangibly save lives when both processes occur at grand, yet quasi-invisible levels through their removal from our immediate perception. Here, again, flat-Earth belief echoes this duality of abstraction and physicality (and the manipulation of both) as flat-Earth proponents internally negotiate what they imagine the Earth to look like against what they experience the Earth to be like (Watkins, 2024). In all these scenarios, imagination (or emotion) undergoes an interplay with knowledge, which results in a hybrid version of reality that accommodates for personal belief; in other words, because the tangibility of these abstract truths is difficult to achieve on a personal level, we can see how it becomes easier to fill in any gaps with personal narratives.

The Role of Identity and Postmodernism in Denialist Movements

Identity also plays an important role in understanding how and why these groups are formed, after all, "[b]elief in a conspiracy theory may, for some, provide a social identity" (Jones et al., 2023, p. 79). If there is a unifying thread between counterculture throughout time and space, it can be said to be the sense of community that occurs due to being a part of a countercultural group. According to social identity theory, group identity can work as a protective characteristic for one's sense of self (Tajfel & Turner, 1979), additionally providing positive outcomes such as self-esteem. Similarly, emotion also plays an important part in relation to these groups and their beliefs, which can overpower scientific fact. Emotion plays a role in all aspects of the climate debate, both in terms of denialists and advocates, as it helps to strengthen broader narratives of belief

(Smith & Leiserowitz, 2014; Poberezhskaya, 2018, p. 946; Bloodhart et al., 2019; Bloomfeld & Tillery, 2019). Counterculture more broadly also taps into emotion in order to forge connections; this is particularly visible in the relationship between media and counterculture. For example, music played a pivotal role within the punk counterculture, as it not only served as a form of message dissemination, it also made use of emotional connections and a sense of belonging, which in turn strengthened the ideals these movements stood for (Moran, 2010). Equally, the role of music as a binding agent for counterculture has also found purchase in right-wing co-option, notably through the *Identitarian* movement, which spawned bands such as Italian ZetaZeroAlfa (Bures, 2020, p. 37).[1] The presence of emotion within these communities can be felt within these co-opted right-wing groups, exemplified here by Bures' understanding of Strauß:

> "Strauß exhibits key features of the 'emotional community' of New Right counterculture: [sic] feelings of despair and disgust at the present state of society, a sense of cultural loss, and a belief that they belong to an embattled minority in a lost post, bravely witnessing to higher values and truths." (Bures, 2020, p. 47)

The emotional sense of loss is particularly salient here, which can also be linked to the aforementioned feelings of loss of power and freedom in the face of government mandates or policies, particularly in relation to climate mitigation strategies.

One of the overarching paradigms that can be used in order to make sense of these beliefs is a rise in postmodernist thought, which also coincides with the rise of the aforementioned civic groups in the sixties. Postmodernism hailed an era of questioning universal truths and structural powers, which extended to an interrogation of science and experts (Lyotard, 1979). Postmodern frameworks can be seen within countercultural groups, including the ones discussed here, as these countermovements often claim to be "tired of experts" (which Giddens addresses in his publication in 1991 in relation to postmodern questioning of science and expertise) and place their own non-expert understanding above scientific fact. Despite frequently making use of scientific co-option (in terms of language and processes, albeit often misrepresenting the scientific method) in order to substantiate their claims, there is ultimately a rejection of mainstream science in lieu of personal epistemology—which reverberates as a form of postmodern thought.

The British context of climate denial is complicated by its nations' varying contexts. The socio-political understanding of climate change in England and Scotland in particular varies considerably, particularly when considering the different

1 Though it is worth noting that music has played a part in right-wing subcultures since the 1970s with the rise of skinhead bands (Windisch & Simi, 2018).

ecological landscapes of both nations. There are physical aspects shaping these discussions (e.g. the presence of oil in Scotland), but differences run beyond these aspects and can be rooted in differing political leanings between these nations. That being said, Britain has a long relationship with countercultural movements, which also plays a part in shaping these discussions.

While the rise of the climate denial countermovement might appear new, it finds its roots and rhetoric in other (and at times, older) forms of counterculture. We can see how counterculture can present itself within differing political camps (namely left-wing counterculture, right-wing anti-movements, and denialist movements), which complicates its attempt at a stable definition. Although it is difficult to map out exact similarities between the developments of countercultural movements, the similarities that can be found provide enough indication that a broader understanding of how these countercultural movements work is productive in order to understand climate denial more fully. These similarities between different forms of denial and/or conspiracy have been outlined in previous research (see Landrum & Olshansky, 2019); indicating that a keener understanding of denial more broadly is required. There is indeed an overlap between these different forms of denial, though this does not always occur in an even manner, as there can be other variables at play such as religious belief among flat-Earthers or the expert-led anti-psychiatry movement.

Conclusion

As we've been witnessing in the broader Western context—and in the British context more specifically—the rise of right-wing populism has led to growing support for polarising stances in relation to issues like climate change (Yan et al., 2021), with links between Brexit and climate denial and/or resistance having been noted elsewhere (Richards, 2019; Atkins, 2022). Whilst these political processes can work as crude indicators in terms of belief in relation to climate change, the complexities of denialism require an understanding beyond political demarcations; one that accounts for cultural processes and more nuanced understandings of identity and community. Whilst different forms of denialism can have similarities across different arenas, it can also hold disparities—culture (and counterculture) are complex, moving phenomena that morph and adapt as they circulate. The climate change denial countermovement is also not the first countermovement rooted in deniability of science—these have also existed within the UK in the form of vaccine resistance and flat-Earth belief—and countermovements can be found beyond these in the form of anti-groups that have formed as a reaction to

civil movements. These ideas are further complicated by our binary understanding of political alignment in terms of denialism, which is not always reflective of current postmodern realities.

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The (In-)Justice League and the Battle of the Climate Narratives: An Ethnographic Study of Climate Policy Skepticism in the Norwegian Paradox

Marthe Elden Wilhelmsen

Abstract

This ethnographic study explored the justice perceptions of climate policy skeptics in Southern Norway. The data was generated through fieldwork from 2022–2024. The participants viewed themselves as marginalized truth-tellers in a moralized society, feeling excluded from the dominant climate discourse. Their climate skepticism was often driven by a sense of injustice, challenging the established narrative. This study underscores the significance of social identity and perception of exclusion in shaping climate skepticism. In this case, the injustice perception was linked to defending their privileges and themselves from change and responsibility. People's different normative perceptions of climate justice and who we can trust determines their justice perception and feeling of injustice. To have a constructive conversation about climate policies, we need to understand what lies behind the climate skeptical claims.

Keywords: climate skepticism; justice perception; exclusion; ethnography; moralizing discourse

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It was always pleasant to meet Adam and Daniel. They were colleagues, around 30 years old, and had a lot to say about politics, society, and everyday life. They were engaged citizens, and regularly got frustrated over different topics. We often met at their office, and they offered me tea or coffee, and usually had some leftover chocolate or cookies at the office from meetings. One day, after a bit of chit chat, I noticed that Daniel seemed a bit anxious and asked a couple of times if we should move to a group room. I was curious as to why he was acting a bit nervous, as it had not been a problem before. He admitted that he could not be as open if Jannike, a female colleague, came into the room. Adam added that they get carried away when they talk, so it was probably best to move. So, we went into a meeting room where we could close the door, and no one could hear what we were talking about.

These informal, yet insightful encounters provided nuances to the complex dynamics of how a *perceived exclusion* from the climate debate might be more important to the participants than the climate skeptical *content* itself. As will be explored, free speech can be seen as under threat by a moralizing, dominant climate discourse, leading to a frustration of being judged by expressing their opinion. Climate skepticism can thus be about a larger discussion about justice perception, hidden beneath climate skeptical attitudes. This will be explored further in the findings section of this book chapter. First, let's have a look at some factors that influence climate attitudes.

1. Climate Attitudes and Values

The science behind climate change is well established with a consensus on anthropogenic climate change (Cook et al., 2016; IPCC, 2015). Despite this, climate skeptic attitudes are significantly high in Western societies (Capstick et al., 2014). Even though the science on climate change is rather uncontroversial, the *actions* needed to decrease climate change is, on the other hand, controversial. Therefore, looking at the social, individual, and cultural aspects that influence our perception of climate change is vital to understanding the complexities of why some people hold climate skeptical views. In recent years, there has been a growing focus within academia on the concept of climate justice and its relevance in political discussions about climate policy. There have been studies on how justice perceptions can provide valuable insights into people's views and concerns about climate policies (McLaren et al., 2016) and how it influences environmental decision making (Kals & Russell, 2001) when addressing environmental and development challenges (Dirth et al., 2020). Justice perceptions is linked to values, and values are driving forces behind people's engagement on specific issues. Those with less individualistic values are more likely to care about climate changes, and those with

the most knowledge on climate change are the most worried (Lannoo & Reed, 2016). Bailey highlights the importance of looking at normative interpretations of climate justice and further argues that it is important to look at the spatiality of justice claims with focuses on international versus local justice concerns (Bailey, 2017). Looking at normative justice perception, values, and identity to understand climate perceptions thus offers an interesting path. Could climate skepticism be more about expressing belonging to a group identity sharing the same justice perception, rather than about the topic of climate itself?

Mackay et al. (2021) claims that collective identities strongly influence beliefs, attitudes, and behavior related to climate change. This protective instinct towards group identities aligns with the observations of Sarathchandra et al. (2022) who noted that climate change skeptics perceived themselves as ostracized truth seekers who viewed climate scientists as exclusive and untrustworthy. Those who distrust scientists and experts have an increased chance of being climate change skeptical (Hmielowski et al., 2014; Poortinga & Pidgeon, 2003). Such anti-elite, anti-scientist and anti-expert attitudes are connected to right-wing populism (see e.g. Wodak, 2021). The political solution to the climate crisis often revolves around coordination, regulations, and state involvement, which are usually more associated with left-leaning political ideologies (Arnslett et al., 2018) than the right conservative values regarding freedom and tradition (Lannoo & Reed, 2016). Words like equality, poor, rich and unity, or political terms that imply quick and radical changes such as capitalism and revolution are more associated with the left side of the political spectrum. This also includes moral admonitions such as greed, and lack of empathy and compassion. These are often in conflict with the values of the right-leaning political ideologies. Messages of a threatening world full of instability and destruction contradict the conservative values of status quo and avoiding negativity. The traditional climate solutions that increase state control are a poor fit with the right side of the political spectrum (Lannoo & Reed, 2016, p. 23). Moreover, Feinberg and Willer (2013) found that the environmental discourse largely based itself on moral concerns of care and harm which are values more connected with the left. They found that conservatives did not view the environment in moral terms, but the liberals did. They concluded that moralization was important as a cause of the polarized climate change attitudes (Feinberg & Willer, 2013). Delving into the moral dimensions of climate change discourse, this chapter considers how perceptions of the moral thing to do and perceptions of justice contribute to the intricate puzzle of climate skepticism, shedding light on the ideological cues that influence public opinion on climate change and climate related policies.

2. Ethnographic Research and a Peculiar Norwegian Paradox

Climate change-related research has increased massively in the field of anthropology since the beginning of the century (see e.g., Barnes et al., 2013; Barnes & Dove, 2015; Stensrud & Eriksen, 2019), with social anthropologists such as Eriksen (2021) highlighting the need for a holistic approach in understanding climate change, which anthropology can provide. In her research among the extraordinarily privileged in a Norwegian town in the early 2000s, Norgaard (2006, 2011) uncovered that, on a collective level, the public actively resisted the information available about climate change, instead contending with troubling emotions that conflict with prevailing cultural norms and privileged lifestyle. While these previous studies offer valuable insights, my research aims to delve deeper into the specific intersection of climate skepticism and justice perceptions in Southern Norway. But why is a small country in the North an interesting case?

2.1 The Peculiar Case of the Norwegian Paradox

At the core of Norwegian culture is a set of egalitarian values, not being as polarized as the US, for example, where a lot of the research on climate skepticism is based. This makes Norway an intriguing case study as values and perceptions are not aligned with mainstream political parties, unlike the US. Norway is paradoxical in aspiring to be a global climate leader, whilst maintaining investment in the oil and gas industry. This has been called "The Norwegian Paradox" (Boasson & Lahn, 2017; Eckersley, 2016; Lahn, 2019; Lahn & Rowe, 2014) and it makes an interesting case study when researching climate policy attitudes. When it comes to climate skepticism, climate denial is not widespread in Norway. Yet, it is relatively common to be skeptical of the seriousness and the impacts of climate change (Austgulen & Stø, 2013). Qualitative data suggest that Norwegians might express a clear discrepancy between, on the one hand, accepting anthropogenic climate change as a real problem, and, on the other hand, not being willing to let this affect their lifestyle (Higham & Cohen, 2011). Tranter and Booth found that higher levels of CO_2 emissions per capita as well as how vulnerable a country is to climate change have a positive correlation with climate change skepticism. This could explain why Norway has one of the highest levels of climate skepticism in the study (Tranter & Booth, 2015). Despite Norway's low vulnerability to climate change due to its location and economy, the high CO_2 emissions correlate with climate policy skepticism.

Southern Norway is a more religious area than the rest of the country, referred to as the "bible belt", with its many protestant churches. The Southerners are usu-

ally seen as calm, rarely raising their voice and disliking conflict. The saying goes that if you become friends with a Southerner, you have a friend for life, but if you get an enemy in a Southerner, you will never know. Portraying them as being somewhat reserved but loyal when you become friends, and never letting you know if they disagree on something. That is why it intrigued me when protests occurred against road tolls. What was it with the road tolls that managed to mobilize people in the streets? Road tolls have come under intense criticism in recent years, with several protests taking place across Norway in 2018. In the movement against road tolls, right-wing parties have played an important role, but there were also new formations such as *Folkeaksjonen Nei Til Mer Bompenger,* now *Folkets Parti* (FP), that placed themselves outside the right-left political spectrum, indicating that the contestations around climate policies cannot be easily mapped onto traditional political categories. In the fall of 2019, Norway had their local election that has been called a protest election, since many of the reasons for why people voted what they did were connected to protesting various issues, such as the road tolls. How could an area known for their calmness result in a protest election, which ended in such chaotic consequences as elected politicians' involvement in online bullying, personal attacks, changing parties, and withdrawing from the party? It was a chaotic time, with a lot of blunt statements made by the city council, both in person and online. This sparked my interest. How could this happen in an area known for their attitudes of "*det går så greit at*" [everything is ok]? To be able to dig deep into this topic, an ethnographic approach was essential.

3. Getting to Know a Climate Skeptic: Why Ethnography Was Vital

To understand climate skepticism and denial, it was necessary to move beyond broad-scale studies and delve into local components (Skarstein, 2020). The research is based on my interviews between 2022 and 2024 in Southern Norway, using unstructured individual, pairs, and group interviews within the participants' naturally occurring social networks.

There were nine key participants who I conducted thorough interviews with and met with several times. In total I talked to around 40 people, who, in different ways, had expressed skeptical views towards climate related policies. As road tolls were still a hot topic this was often what sparked the conversation in the first meetings. The age range spanned from early twenties to early eighties. Their fields of discipline ranged from natural science, engineering, social science, education, administration, and economy. They came from working- or middle-class backgrounds, and only two were women. Starting the fieldwork, I aimed towards getting a balance between genders, ages, class, and geographical location. It is

important to note that ethnography does not aim to generalize, but to uncover some patterns. I quickly realized that there was already many interesting findings, that I wanted to dive deep into with the participants I had already recruited. I had to spend a lot of time building trust, as many of them were skeptical towards researchers and scientists in general, aligning with right-wing populism, as previously mentioned. The participants were recruited from mutual contacts, events related to road tolls and climate policies, and, most importantly, using the snowball method. As I did not want expert interviews, none of them are politicians, but some are affiliated with political parties. I also did not want to recruit from online forums, as I aimed to find out the underlying values connected to climate skeptical views amongst the "everyday" people in Southern Norway, not those writing in caps lock online. I was eager to learn about how social networks influenced their views, and vice versa. We had conversations at their workplace, with their colleagues at lunch, and with their friends and families. Establishing trust and a rapport was a priority throughout the two-year-long fieldwork. Multiple interactions with the participants, conducted in diverse settings such as workplaces, cafes, natural surroundings, or their homes, helped in nurturing a deeper understanding of their perspectives. Utilizing an unstructured interview strategy allowed the participants to steer the conversation and introduce topics which provided rich data. Despite the research primarily focusing on climate-related policies, conversations often included towards other topics as well. The unstructured approach facilitated an understanding of the participant's underlying values, worldviews, complex identities, and key ideas, including the sense of injustice prevalent among the participants. I realized that they weren't always talking about climate change or climate policies, even though it could seem like they were, which will be explored in the following. Not only did this method enrich the data, it also highlighted the importance of addressing climate policy skepticism and concerns in ethnographic research.

4. The Battlefield of Dominant Discourses

In this section, I explore the narratives that emerged during the ethnographic research on climate policy skepticism by looking into justice perception. It quickly became evident that the participants categorized themselves as marginalized truth tellers, as I will elaborate on in the following. The climate-skeptical participants in this research prioritized economic growth and advocated for independence from environmental regulations. From their perspective, climate policies posed a significant threat to individual freedom, and were thus unjust in their view. Climate was therefore not perceived as the threat, the climate

policies represented a threat to their identity, lifestyle, and privileges, which they perceived as injustice. I will first present findings on their view of the media and climate discourses, to better understand their ideas as a reaction to this dominant discourse.

4.1 A Moralizing Discourse

"*If you mean something that is not a part of the dominant discourse, then you are seen as a bad person by those who consider themselves to be good people. It is very contradictory, 'I am a good person, but I judge you immediately!'*", laughs Daniel (early thirties). A constant topic was their opinion of mainstream media being untrustworthy and moralizing. They believed it was a moralizing discourse as it both placed blame and responsibility where the participants did not believe it should be placed; that Norway and Norwegians were responsible; that climate change was happening and was urgent; and that climate policies were necessary. This is what I am referring to when using the term moralizing discourse. They believed that the media was shaped by leftists who had a hidden agenda, forcing them into feeling something specific about a situation. It wasn't giving us objective news, but moralizing opinions with no alternative. This focus on the injustice of someone owning the narrative of what is acceptable to believe and think, often seemed more important than the climate policies itself. This could motivate especially the younger participants to go in the opposite direction. It is important to note, that even though the political spectrum in Norway doesn't mirror the right/left divide in the US, the right-wing populistic justifications are similar amongst many of the participants in this specific study, even though some of them claim to be in the center politically, and not right-wing. Some of the research from the US therefore aligns with my research from Southern Norway, such as in the following examples.

The participants claimed that they were experiencing injustice, as they believed that someone had control over what they defined as a moralized discourse and holds the "accepted" perception of what we should do in climate related issues. As previously mentioned, Feinberg and Willer (2013) found that those within right-wing ideology didn't view things in a moral sense, contrary to the ones with left leaning ideology. This moralization thus became an important aspect in understanding the polarized climate policy attitudes. When the climate discourse uses terms like equality, solidarity, rich, poor, radical changes, greed, lack of empathy and compassion, which align with left-leaning political ideologies, the participants felt as though they were moralized into a forced opinion, when they did not themselves see this in moral terms. They were frustrated that someone "owned" what was acceptable to say, and they were sick of woke-culture, and

everyone "being offended all the time". *"The problem is you need to get a backbone!"* Adam (late twenties) said when expressing his frustration over people getting offended if you said something that didn't agree with the moralizing discourse. This aligns with right-wing populism, with anti-scientists, anti-elite, anti-expert, and nationalistic views, as previously mentioned. In addition, participants such as Adam, Gaute, and Daniel claimed that a lot more people were agreeing with them than it might seem in the media or politics. While some participants argued that their provocation sparked debate and challenged established views, it's essential to consider the potential negative consequences, such as increased polarization and hindering of constructive dialogue. Balancing provocation with fostering understanding remains a challenge in public discourse.

The participants asserted their unfiltered views, and highlighted that others often withhold their true opinions out of fear of going against the accepted narrative. Like Adam (late twenties), who claimed: *"The other ones just follow a moralizing discourse. We dare to say it like it is"*. The participants often idealized those who "say it like it is", which became a central element in their sense of self-identified group belonging. Daring to oppose the dominant discourse became a victory in itself, with the *content* of that discourse being less important. In terms of justice, climate policy skeptics perceived themselves as champions of justice, even if their stance was contested. While many people view climate policies as just measures, since they aim to limit the destruction of more exposed areas, and limit potential future climate crisis consequences like a decline in air quality, issues of food security and climate refugees, skeptics saw the policies as unfair and imposing road tolls, travel restrictions, and dietary changes that threated their lifestyles. Their perception of injustice was closely connected to them defending their privileges, not including solidarity with those in other situations, or other parts of the world. Thus, their priority was to defend their privileges (such as wealth based on oil), justify their lifestyle (especially focusing on independence and freedom), and defend themselves against responsibility and change. Policies such as road tolls were seen as a way of limiting peoples' independence, and that was unjust to them. As they did not believe in climate change or in the seriousness of the issue, they did not accept the reasoning behind such policies, nor did they agree that their actions should be at the expense of those more affected by the consequences of climate change. Even though only one of the participants (Eskild, in his eighties) claimed to be a denialist, the rest were skeptical by varying degrees of the seriousness of climate change. All agreed that the climate related policies were not relevant, and some claimed that it was just a way to take money from the people. Recognizing these differing perceptions of justice is essential in understanding the climate policy skepticism phenomenon. Who is it justice for? Who should make changes in their lifestyle, and who will face the consequences if it

is not met? Certain rhetoric, like global solidarity, intensified the participants' feeling of exclusion, as it conflicted with their values of individualism and free speech. It became hard to relate to the content due to the moralizing language and the emphasis placed on the spatial aspect of *international* responsibility. They viewed climate experts and institutions skeptically, perceiving them as driven by politics and financial motivations rather than genuine concern. Once again aligning with right-wing populistic ideology. This indicates a need to rebuild trust and improve communication between experts and the public. To some, this might be viewed as the opposite of justice, as it is a rejection of global justice, solidarity, and equality. Yet, the participants viewed these as claims of justice since they disagreed with the premise of climate change having severe consequences, and their individualistic views of believing that everyone should serve themselves, and not be responsible for other people. Especially if "the others" were non-Norwegians. Even though they had these claims, they were aware of what was considered "ok" to say. They admitted that they suppressed certain opinions at work and amongst certain people to avoid being judged, such as in the example from Adam and Daniel's office presented in the beginning of this chapter. Their perception of exclusion and their frustration about not being part of the mainstream climate discourse aligns with Saratchandras et al.'s (2022) research on marginalized truth seekers. These findings provide a key to understanding why participants felt excluded from mainstream dialogue on climate policies. This sense of being pushed to the fringes of the discussion could significantly shape their identity as skeptics, further reinforcing their belief that their perspective was marginalized. This also builds on what Mackay et al. (2021) researched when looking at group membership and self-categorization, which can help to understand how the participants categorized themselves as a distinct group of truth tellers within the broader discourse on climate change. Their perception of marginalization can be understood as an attempt to maintain their social identity in the face of an opposing dominant narrative.

4.2 The Un-Represented Truth Tellers

"*People don't trust politicians. Especially not in the more rural areas where people feel as though the politicians don't represent them. That is why many of them vote for FrP (Progress Party, right-wing party), since they speak their language, and are not speaking in a way that only politicians understand*", Carl (early twenties) said in one of our first conversations. Throughout this research, participants consistently expressed a sense of being marginalized, silenced, and unheard within a society dominated by a single narrative. Such as in the example at the beginning of this text, where Adam

and Daniel wanted to change rooms in case their colleague walked in. The fear of being silenced or misrepresented was evident from the start, as many of the participants wanted to participate in this research, since they could share their perspective and we would meet up many times, with them steering the conversations. One of the participants, Gaute (early thirties), initially hesitated to participate, seeking assurance that his perspective wouldn't be misrepresented. This mirrors the broader mistrust participants had, especially in regards to how media and politicians might have unjustly represented them. They shared a common concern: avoiding unfair representation. They believed it was unjust that someone owned the narrative, deciding what was the moral thing to do. Especially when this contradicted their own beliefs.

The participants didn't think they were represented by the media or the politicians and claimed that the media didn't know what people thought about climate policies. Exemplified by a conversation with Adam and Daniel where they claimed, "*We are the normal people, they [the politicians] don't have a clue about us*". They claimed that "the normal people" were those who minded their own business and took care of themselves and their families. Furthermore, they claimed that people were not generally concerned with climate change. Adam and Daniel believed that the media chose to write about young people being concerned about the climate, yet the political parties on the right had strong support in high schools. However, the "moral thing to do" was to express concern about the climate and the poorer parts of the world, so that was why the media continued to write it, they claimed. Adam further reinforced the concept of "being our own people" when he distinguished between Norwegians and immigrants. He emphasized that "*foreigners would not say that Norway is their home*". He associated this perspective with the idea of conscription as a means of fostering nationalism and patriotism. Several participants, particularly men in their twenties and thirties, discussed how they perceived a lack of patriotism and nationalism among Norwegians, and they saw military service as a way to address this deficit, anchoring patriotism through military service. The idea of who deserves what, often connected to this sense of nationalism, was a recurring topic among the participants, and aligns with right-wing populism research. Adam also drew attention to Norway's role in global climate efforts and how some Norwegians believed in their ability to change the world. "*But we are not the world*" he said. He claimed that we do not have responsibility to "save the world". Once again demonstrating that their solidarity is not global, which helps to explain why their perception of justice was centered on individual privileges, not on global climate justice. It furthermore sheds light on the importance of looking at the spatial aspect of justice with their focus on individual justice vs. global justice.

The participants didn't think the politicians listened to them, talked like them, or had the same experiences. They believed that the politicians were looking for power, without having the people's interest at heart. Hilde and Inge (a couple in their sixties) claimed that the politicians were only looking for ways to lure money out of the people with policies such as the road tolls. A constant frustration expressed during the two years of fieldwork was over the discourse that Norway should limit oil production in an act of global climate solidarity to contribute to less emissions. The participants' skepticism can thus be understood in the context of a moralizing rhetoric that is influencing public opinion and causing polarization. The language employed by the dominant discourse was often perceived as elitist, with the "climate elite" only being concerned about how they were *perceived* as moral, which can increase polarization by making certain groups feel disconnected from both the messenger and the language used.

This disconnect emphasizes that their disagreement lied in how the message was delivered rather than the actual content. To some of the participants, it seemed like the politicians and media were part of a popularity contest rather than telling the truth and implementing relevant policies. The participants talked of an "urban elite" and a "climate elite". Many of the participants agreed that *someone* gained *something* and had a hidden agenda. Who this was specifically, was not clear, which aligns well with literature on populism (Huber et al., 2021; Wodak, 2021). It seemed like the climate elite included those believing in climate change and advocating for climate policies. The elite in this sense did not necessarily refer to people with money, but rather to those defining the narrative, regardless of their income or social class.

While the participants frequently expressed concerns about the media and politicians not accurately representing the people and propagating false narratives, it's important to note that media outlets strive to present diverse perspectives and adhere to journalistic standards. Similarly, politicians may have varying ideologies and policy approaches, aiming to address the interests and concerns of a broad spectrum of the population.

5. The Justice Warriors

This book chapter takes an ethnographic approach when researching climate policy skepticism, focusing on the perception of justice. In this context, the ethnographic methods proved to be essential for understanding the intricate nuances of climate skepticism. It was important to investigate the participants' train of thought, how they perceived justice and what the climate policies represented to them. Fostering trust and rapport was vital and contributed to shed light on the

multifaceted nature of climate-related issues by looking into justice perceptions. It is through such research that we can begin to bridge the divide, understand diverse perspectives, and foster a more inclusive dialogue on climate change, addressing concerns of perceived inequality and promoting a sense of fairness in climate policies. While the scientific consensus is robust, understanding what shapes climate change attitudes is crucial to unravelling the reasons behind climate policy skepticism. Reasons such as identity protection, which in this case is connected to protecting individual privileges and independence, oppose change and responsibility for the climate crisis can shape climate skeptical attitudes. Ideological rhetoric with moral connotations plays a significant role in shaping climate skepticism, particularly in the political context of climate discourse. Trust, or lack thereof, in climate experts, scientists, and climate messengers, such as the media and politicians, has a profound impact on shaping attitudes toward climate change. Understanding the normative perceptions of justice is vital to understand climate attitudes. This chapter contributes to the broader understanding of climate skepticism and its complex dynamics by exploring justice perception while emphasizing the need for empathy and understanding in addressing this complex issue. Without agreeing on what climate justice is, and where the issue lie, we cannot expect to agree on potential solutions.

As we reflect on these narratives, a pivotal question surfaces: how can society bridge this divide, ensuring that meaningful discussions regarding climate policies can thrive? This question propels us to contemplate the broader implications of these findings and their relevance in fostering a more constructive dialogue on climate change by recognizing that it has an underlying justice disagreement. In doing so, we can work towards creating a space where climate justice becomes a shared goal for a sustainable future.

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Climate of Regression: Public Climate Attitudes and Radical Right Anti-Climate Mobilization in the Battle Around the Green Transition in Germany

Christoph Richter, Axel Salheiser, Noah Marschner, Janine Patz

Abstract

In the past, climate regressive movements and narratives have rather enjoyed a niche existence in public and political discourse in Germany. Recently, the more offensive climate policy under participation of the Green Party and the heated, populist debates about specific climate protection measures have increased public conflict concerning climate protection. The radical right, alongside parties of the democratic spectrum, successfully mobilizes fears of decline and loss against climate protection measures. Currently, there are indications that the formally high level of support for climate protection measures in Germany is decreasing. Against this background, we analyze a survey data set (N=8642) obtained in 2022/23 and investigate which of the numerous factors known from international research on climate perception and resistance to climate protection (including socio-demographic, socio-economic, political and cultural characteristics, as well as media use, institutional trust and exposure of climate risks) influence the perception of the climate crisis and the support for climate policies in Germany. In line with international research findings, our research points to a strong impact of political and cultural values, shaping attitudes towards climate change perception and action.

Keywords: climate attitudes; transformation; inequality; far-right; social and democratic cohesion

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In the run-up to the 2021 German federal elections, incumbent German Chancellor Olaf Scholz promised that he would be a "climate chancellor". The beginning of a new government in December 2021 formed by the Social Democrats (SPD), Green Party (Bündnis 90/Die Grünen) and the Liberal Party (FDP) was supported by a broad wave of public awareness surrounding the issue of climate protection paired with hopes for the implementation of a more consistent climate policy. Since 2017, political pressure and social relevance of the topic has grown markedly in the wake of public debates highlighting the increasingly tangible consequences of the climate crisis paired with far-reaching protests by climate protection groups (Buzogány & Mohamad-Klotzbach, 2021).

However, two years into the new administration at the end of 2023, the mood seems to have changed, at least for the time being. Partly as a result of the energy crisis—a topic subject to heated discussions in connection with climate policies—, popular satisfaction with the German government has reached an all-time low.[1] In this shifting mood, the Greens, in particular, have been the focal point of criticism, from mild to massively hostile (Bundtzen & Matlach, 2022). Beyond the far right, hostility has also arisen from segments of the conservative and liberal democratic parties, which has facilitated rising support among other parts of the population. The polarization of social debates along with political dissatisfaction in Germany now seems to have reached a level that fundamentally puts existing social cohesion into question—which is also linked, in part, to disputes over climate policy.

At the same time, besides skeptics and opponents of the climate protection measures, climate protection activists have likewise started to direct massive criticism at the German government. Terms such as "anti-climate chancellor" and "climate canceler"[2] have been circulating two years into Scholz' term.[3] While the current government has accelerated the expansion of renewable energy sources, it has also extended the operating lives of coal-fired power plants, rolled back sector targets in the Climate Protection Act, massively expanded gas infrastructure and limited efforts to offset the social costs of the energy transformation. This has raised doubts as to the willingness and ability of the current government coalition to achieve the country's ambitious climate targets.

The energy crisis and debates surrounding climate protection measures have highlighted the complexity and high conflict potential of climate-related issues.

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1 Forschungsgruppe Wahlen e. V. (2024). *Politik II.* https://www.forschungsgruppe.de/Umfragen/Politbarometer/Langzeitentwicklung_-_Themen_im_Ueberblick/Politik_II/

2 Play on words between the German term for "chancellor" and the English word "cancel".

3 Fridays for Future Berlin (2023). *Klima-Kanzler statt Klima-Cancler – Fridays for Future ruft Olaf Scholz zum Handeln auf.* https://fridaysforfuture.berlin/klima-kanzler-statt-klima-cancler-fridays-for-future-ruft-olaf-scholz-zum-handeln-auf-demonstration-am-24-november/

Public opinion and debate about climate protection appear to be bending under the weight of populist-led negative and disinformation campaigns spread by private (tabloid) media, the radical right-wing *Alternative for Germany* (AfD) party and other far-right protagonists, which were additionally reinforced by the fact that parts of the democratic parties used similar narratives. Even though overall approval remains *relatively* stable, shifts in the way people assess specific climate protection *measures* have become apparent. The number of Germans who believe current measures fail to go far enough fell by 10 percent between January and September of 2023 (Planetary Health Action Survey, 2023).

When considering attitudes regarding the climate and climate policy in general among the population, however, we find a relatively favorable political environment, at least in theory. According to a representative survey conducted by the Research Institute for Social Cohesion (FGZ/RISC), just under 62 percent of the population held a more progressive attitude towards climate issues, compared to only 5 percent who held a more regressive attitude towards climate issues during the survey period (fall 2022 to winter 2023).[4] As an example, 67 percent of respondents stated that they were "very to extremely concerned" about climate change. Although the proportion of climate policy skeptics was also relatively low (at just under 17 percent) large portions of the population were ambivalent in their view on climate policies and the associated economic consequences (63 percent). More specifically, around 40 percent of respondents feared that their standard of living would fall as a result of climate policies and around 43 percent believed that climate policies would lead to job losses.

Fears of a loss of status, both materially and culturally, have opened up windows of opportunity for far-right actors who are able to play on such insecurities and fears when positioning themselves as opponents of climate protection. Founded in 2013, the radical right *Alternative for Germany* (AfD) assumes a key role in the milieu of climate protection opponents among the far right. In general, the party is opposed to the tenets of pluralism, diversity and equality serving as central principles of a democratic society and, over time, has steadily radicalized into a party that can now be described as representing the far right (Richter et al., 2022).

AfD is the only party represented in the Bundestag to openly question the scientific consensus on climate change and the corresponding need for action. It opposes the implementation of climate protection measures and supports the continued use of fossil fuels. The radical rejection of climate protection and the

4 These figures are the result of mean value scales of various items, divided into three equally sized value ranges. For more, see our definitions of climate and climate policy perceptions (chapter 3) and the descriptions of the scales (chapter 4).

denial of the need for action has become a foundational ideological component in the party's political platform, one that merges radical right-wing and market-radical rhetoric. In its strategy, moreover, the party focuses its attacks on climate protection measures that, according to its views, threaten national interests, the German economy and the prosperity of "ordinary people" (Küppers, 2022).

Against this background of ongoing social disputes, the present study is going to investigate the background and interdependencies underlying attitudes, concerns and skepticism around climate protection and the associated policies among the German population, drawing on an extensive dataset (N=8643) and numerous variables. Our analysis focuses on the following questions: how are attitudes towards climate issues and climate policies distributed among the population and what factors influence these? How do social demographics (age, education, gender, place of residence, etc.), perceptions of the impacts of climate change, the relationship towards institutions and media influence attitudes towards climate change and climate policies? What effects can be traced to people's economic situation and their subjective assessment thereof as well as their political and cultural value orientations? This analysis specifically considers and seeks answers to apparent discrepancies between the overall acceptance of climate protection and the negative attitudes held towards specific climate policies.

1. Literature Review: Climate Skepticism, Opinions on Climate Policies, and Right-Wing Populist Attitudes

Along with individual attitudes and individual action, social conflicts surrounding climate change play out at the collective level when climate protection policies and measures are created. A clear attitude-behavior gap has long existed between climate/environmental awareness and ecologically sustainable behavior, both internationally (see e.g., Forchtner et al. in this volume) and in Germany (Grothmann et al., 2023)—indicating that attitudes in favor of climate protection measures do not necessarily reflect corresponding actions. In addition to individual and psychological barriers (Lacroix et al., 2019), the expected cost of action (Grandin et al., 2021) can also negatively impact the willingness to act. As such, support for specific climate policies do not directly arise from individuals' favorable attitudes towards climate protection. Among other factors, this support depends greatly on political orientations and perceptions of risk, cost, efficiency and fairness (Drews & van den Bergh, 2016).

Taken together, these conditions delineate the scope and limits of collective and institutional processing strategies in the framework of democratic climate

protection policies, pointing to the existence of collective conflicts in regard to objectives. By conducting a systematic review of the primary influencing factors behind the gap between general attitudes on climate issues and support for climate policy, we are able to shed light on background factors that influence tipping points of public discourse in Germany, while also offering an outlook for potential future conflicts. To this end, the present study analyzes which of the numerous relationships highlighted in international research on climate awareness, the willingness to take climate actions and support for climate policy may be relevant for the current situation in Germany. At the same time, we highlight similarities and differences between views on climate protection in general and attitudes towards the specific climate policies themselves.

Based on our literature review, we grouped the results into six dimensions:

1. *socio-demographics*,
2. *socio-economics*,
3. *perception of climate change impacts*,
4. *individual and institutional trust & media use*,
5. *political & cultural value orientations* and
6. *voting behavior*

Considering the *socio-demographic dimension* (1), higher levels of education correspond to more knowledge about climate change, greater support for climate protection measures (Dechezleprêtre et al., 2022) and lower levels of skepticism towards climate change and the associated measures (Salheiser et al., 2022). Research findings vary concerning age structure (Dechezleprêtre et al., 2022) while, in regard to gender differences, female respondents are more likely to hold climate-progressive attitudes (Grothmann et al., 2023; Reusswig & Küpper, 2023). In terms of socio-spatial characteristics, Salheiser et al. (2022) find slightly more skeptical attitudes towards climate issues in urban compared to rural areas. Moreover, regardless of the urban/rural factor, skepticism towards climate change and climate measures is noticeably more common in (formerly socialist) eastern German states than in the former West (ibid.; Reusswig & Küpper, 2023).

Regarding *socio-economic findings* (2) Reusswig and Küpper (2023) identify only moderate correlations between income and progressive positions on climate protection, while Salheiser et al. (2022) find no significant correlation between socio-economic profiles and degrees of skepticism. These ambivalent findings may indicate that subjective assessments of one's economic situation (i.e., subjective and relative deprivation along with worries about the future) play a more significant role in shaping attitudes on climate protection than purely objective economic criteria (ibid.). Numerous studies have also concluded that the *perception of climate impacts* (3)—frequently in the form of extreme weather events—has a positive cor-

relation with attitudes on climate protection (Sicco, 2021). Additionally, *individual and institutional trust* (4)—specifically generalized trust (Tam & Chan, 2018), belief in the effectiveness of collective action (Jugert et al., 2016), and trust in centralized social institutions such as the media, science and politics (Drews & van den Bergh, 2016; Huber et al., 2022)—have a significant positive impact on climate-progressive attitudes. The *extent and type of media use* (4) has also been shown to influence knowledge and attitudes towards climate change (Brüggemann et al., 2018).

Numerous studies reveal that political & cultural values (5) and ideologies play a key role in the way people assess climate change as well as the corresponding need for taking action. Left-leaning, egalitarian-minded individuals are more likely to hold positive attitudes towards climate protection while right-wing individuals—for example, people holding basic convictions highly aligned with Authoritarianism (Stanley & Wilson, 2019), and stronger Social Dominance Orientation (Wilson & Sibley, 2013)—hold negative or more skeptical attitudes. Populism and an affinity for conspiracy ideology also have negative effects on attitudes about climate change (Reusswig et al., 2021; Huber, 2020).

In a similar vein, cleavage theory and studies following cleavage theory (Lipset & Rokkan, 1967; Merkel & Zürn, 2019) consider attitudes on climate protection within a broader political and cultural field. This field is marked by conflict between supporters of cosmopolitanism (placing high value on individualism, universalism and climate protection and characterized by more available cultural and social capital) versus communitarianism (valuing self-identity, nationality and homogeneity along with skepticism towards climate protection and characterized by less available social and cultural capital). Political and cultural ideas relating to inequality—for example, attitudes that are nationalist and chauvinist (Kulin et al., 2021), anti-feminist (Jylhä & Hellmer, 2020) and anti-immigration (ibid.)—appear to reinforce negative positions towards climate protection. This is evident, for example, when considering right-wing populist (Lockwood, 2018; Huber et al., 2020) and right-wing extremist attitudes (Reusswig & Küpper, 2023; Reusswig et al., 2021). Along with the conservative to radical right-wing spectrum, segments of free market-oriented political currents are also more likely to hold climate-regressive positions (Quent et al., 2022). Supporters of a free-market economy are more likely to express skeptical to negative attitudes on scientific findings regarding climate change (Lewandowsky et al., 2013). Market radicals generally argue based on a classicist and anti-state interventionist interpretation, viewing climate protection as a threat to individual liberties, entrepreneurial freedoms and economic prosperity (Götze & Joeres, 2020).

During protests against government measures to contain the COVID-19 pandemic, overlaps also became apparent with actors and groups who reject climate

protection measures (Götze & Joeres, 2020) and those holding skeptical and opposing views towards vaccines and climate issues (Götze & Joeres, 2020). The relevance of political attitudes is evident at the level of political action, as well, making party affiliation another key predictor of views on climate change and climate protection (Dunlap et al., 2016; Fisher et al., 2022). In Germany, voting behavior (6) is most heavily polarized between the voters holding more progressive attitudes towards climate protection, who are most inclined to vote for the Green Party (Bündnis 90/Die Grünen), and the radical right-wing AfD, which is able to mobilize individuals holding the most skeptical attitudes on climate change (Reusswig & Küpper, 2023).

2. Definitions, Preliminary Considerations and Analysis Hypotheses

Our analysis applies a broader definition of attitudes related to *climate change and climate protection*, which we further refer to as *climate change attitudes (CCA)* or just as *climate attitudes*. The classification draws from existing concepts by Rahmstorf and Schellnhuber (2014), Van Rensburg (2015) and Geiger (2019). It includes aspects of knowledge about and recognition of climate change, an affective connection to the topic, acknowledgement of the need to act, and the willingness to do so. It is important to emphasize that, although these attitudes consider aspects that are relevant to taking action, they do not necessarily correspond to the actual implementation of the corresponding actions themselves. As such, *attitudes towards climate policies* (further referred to as *climate policy attitudes—CPA*) are relatively independent acts of evaluating policy proposals, which, in the broadest sense, aim at reducing the emission of greenhouse gases. Both dimensions can roughly be divided into an approval/disapproval and an ambivalent section, ensuring the selectivity of the concepts within and in relation to each other, while intersections between the dimensions (e.g., climate-progressive, together with climate policy skeptical attitudes) can also be taken into account. Accordingly for climate attitudes, *climate-progressive attitudes* (approval) recognize the scientific consensus on climate change, its causes and its consequences while demanding that corresponding transformations take place and affirm a willingness to alter their own lifestyle and consumption habits for this end. The opposite field of attitudes (disapproval) will be referred to below as more *climate-regressive attitudes*. Due to a lack of data allowing for a more differentiated assessment, we use the terms *climate policy skepticism* and *climate policy confidence* as generic terms to refer to more negative or positive attitudes towards climate policies—despite their vagueness as terms and susceptibility to trivialization (e.g., in the context of climate change denial).

The principal assumption of the present study is that attitudes towards the climate and climate protection in general and climate policy are shaped through an interplay of the different factors mentioned above. We question which (if any) of these factors are actually decisive and reflect on the consequences this may imply for democratic policy designs as well as democratic cohesion in Germany. Considering this, we propose the following hypotheses:

H.1: The discrepancy between climate attitudes in general and attitudes towards climate policies is empirically reflected in the fact that agreement with associated statements leads to two differing (independent) responses and attitude patterns.

Moreover, attitudes are either reinforced or weakened to varying degrees depending on which influencing factor is considered.

H.2: Overall, attitudes towards the climate in general are more influenced by political and cultural factors than socio-demographic or socio-economic ones.

H.3: In contrast, attitudes towards climate policies specifically are more influenced by socio-economic considerations (including anticipated financial costs).

The (expected) high degree of relevance played by political factors in relation to *climate attitudes* (H.1) arguably stems from the fact that these attitudes are embedded within a larger political context marked by conflict among social groups over collective and national identity, inequality and practices of inclusion and exclusion.

H.4: These political fault lines divide individuals who tend to hold climate-progressive, egalitarian, inclusive and cosmopolitan attitudes, on one side, and those who exhibit more climate-regressive, anti-egalitarian, exclusive and nationalistic attitudes, on the other.

We also examine the extent to which negative attitudes towards government protection measures during the COVID-19 pandemic are negatively correlated to attitudes about the climate and climate policies.

H.5: Attitudes that include the rejection of COVID-19 measures tend to go hand in hand with more climate-regressive attitudes, along with a higher degree of climate policy skepticism.

3. Database and Evaluation Methods

Our analysis uses data from the German Social Cohesion Panel (SCP) (Groh-Samberg et al., 2023). Conducted since 2021, the SOEP-FGZ panel has been designed as a representative longitudinal survey utilizing written mail-out and online surveys. Our dataset is based on the first two survey waves carried out in September 2021 to July 2022 and June 2022 to January 2023, comprising a total of 8,643 respondents.[5] We used the statistical program SPSS 24 and the programming language R (R Core Team 2023) to analyze this data.[6]

A total of 46 different variables or variable categories were selected from the dataset for analysis.[7] Using multivariate linear mixed regression models,[8] we conducted a step-by-step calculation of the effects of these characteristics on climate attitudes and climate policy across the dimensions described above.

We started by carrying out exploratory factor analyses (EFA). This allowed us to calculate the extent to which correlations between different variables could be traced back to one or more common response patterns (factors), which we then summarized into scales (regression factor scores) for the two dependent variables. This analysis of eleven questions related to climate change and climate protection revealed two distinct response patterns (factors)[9]: The first comprises statements expressing concern and fear over the impacts of climate change, anger at inaction, knowledge of the concrete consequences, the need for change, and a willingness to act (items 1–5 and 7–9). In contrast, the second factor mainly contained two items (10–11) regarding concerns over the economic consequences and fears of losing socio-economic status as a result of climate protection policies. As such, we arrive at one response pattern (factor 1) that largely accounts for attitudes towards climate and climate protection in general (CCA), along the lines of our definition above, and a second (factor 2) that largely relates to climate policies in particular and economic assessments of such policies (CPA). High values on the CCA scale indicate attitudes that are climate protection progressive while low values indicate climate protection-regressive attitudes. On the CPA

5 More information about the methodology and the database description for Wave 1 can be found here: https://fgz-risc-data.de/f/e/source/SCP2021_Supplement_Methodenbericht_de.pdf

6 We applied a weight variable (phrf0) for the descriptive analyses and for the regression models.

7 All variables were standardized (exception: dummy variables) and controlled for linearity, multicollinearity (VIF<5), standard distribution, and variance homogeneity (homoscedasticity). For the latter two, the findings revealed deviations that could lead to distortions in the parameter estimates (standard errors). For that reason, we recalculated all models, using more robust, specifically bootstrapping, methods (number of samples: 1000).

8 In addition to applying a simple multiple regression, mixed models were used for the final models, which took into account affiliation of the respondents to households via a random intercept model.

9 Eigenvalue ≥ 1. Explained variance: 50.3 percent. Promax rotation method using Kaiser normalization.

scale, in contrast, high values indicate more skeptical attitudes towards climate policies and low values indicate less skepticism.[10]

	Factor	
	1 (CCA)	2 (CPA)
1. I'm afraid when I think about the impacts of climate change	**0.820**	0.107
2. Sense of anxiety about climate change	**0.819**	-0.071
3. Climate change: angry that not enough is being done	**0.800**	-0.038
4. Concern about climate change: more natural disasters	**0.766**	0.068
5. Concern about climate change: loss of biodiversity	**0.714**	0.092
6. Climate change: it's less critical than they say	**-0.653**	**0.194**
7. Climate change: it's a topic that I often talk about	**0.578**	-0.033
8. Climate change: changes to our economic system are necessary	**0.572**	0.055
9. Climate change: I try to contribute to climate protection	**0.494**	-0.029
10. Concern over climate policies: they lead to fewer jobs	0.020	**0.778**
11. Concern over climate policies: they will lower my quality of life	0.018	**0.667**
Explained variance (total)	50.279	
Explained variance (per factor)	40.898	9.382
Measure of sampling suitability based on Kaiser-Meyer-Olkin	0.900	
Significance based on Barlett	0.000	

Table 1: Sample matrix of climate items factor analysis.
Source: FGZ/risc; Data: German Social Cohesion Panel (SCP) Wave 1 & 2

While these two scales represent our dependent variables, in the following, we describe which independent (i.e., explanatory) variables were used to account for attitudes on climate and climate policies. We have grouped 31 independent variables (46 variable categories total) based on the content dimensions outlined above. For the *socio-demographic dimension*, our independent model variables are age (on a metric scale), education (highest completed schooling level), gender (female/non-binary versus male), population density of place of residence (rural, small-to-medium urban, or large urban setting) and location in either western or eastern Germany (former GDR), which all serve as dummy variables. The *socio-economic dimension* comprises *monthly net household income*[11], an assessment of one's *personal economic situation* and individually perceived *deprivation*. Perception of climate impacts is measured using a scale that measures the individual impact of climate change events (heat waves, droughts, heavy rainfall occurrences, floods and storms). The characteristics comprising *individual*, *institutional trust* and *media use* include trust in others (or *generalized trust*), interest in politics, support for democracy as a form of government (*democracy support*) and belief in the effectiveness of political collective action (*collective effectiveness*)—each of which we coded

10 Both factors are negatively correlated at a value of -.254.
11 Dummy variables: low: 900 to 2,600 Euro; mid: 2,600 to 5,000 Euro and high: 5,000+ Euro.

as binaries. Additionally, mean value scales were applied in relation to how frequently *media information sources* are used as well as for measuring trust in central social institutions (*institutional trust*).

For the *political-cultural attitudes dimension*, we selected fourteen indicators, combining numerous characteristics per indicator to arrive at mean value scales—except for *political self-assessment* (dummy variables for "left", "right" and "center"). *Authoritarianism* and *Social Dominance Orientation* were surveyed using pre-established short-scale concepts (9 items and 3 items) and summarized into scales based on the mean value. We also calculated mean scales for *populism* (9 items) and an *affinity for conspiracy ideology* (5 items). In addition, we recoded a *traditionalism vs liberalism mean value scale* consisting of six items. This scale comprises items on the relevance of tradition, adherence to customs and traditions and to protect one's own culture. In addition, there were three further items recoded in opposite directions, which included agreement with the diversity of lifestyles and cultures and the right to live in any country. Overall, the scale thus reflects central core elements of the communitarianism vs. cosmopolitanism concept (cf. chapter two) and is used below to examine the relevance of more traditionalist and communitarian versus more liberal and cosmopolitan attitudes. To measure attitudes on *social inequality*, we combined three items to assess views on social inequality itself as well as social policies; we also created an additional scale based on the mean values of six items to assess views on COVID-19 measures. For attitudes on *migration*, *asylum* and *refugees* (as well as *Islamophobia* and *nationalism*), we combined items (6, 4, 5) in the same manner. The scale for gender inequality and a rejection of sexual and gender diversity (*gender inequality scale*) comprises six questions. We coded all political attitude variables, with higher values on a scale expressing stronger rejection of the topic. Finally, we recoded the *voting intention* of the respondents using dummy variables for the parties represented in the German Parliament—SPD (Social Democrats), CDU/CSU (Conservatives), Bündnis90/Die Grünen (Green Party), Die LINKE (Socialists) and AfD (far-right)—as well as for the far-right and extremist parties not presently represented (NPD[12], Republicans and Die Rechte), along with non-voters and non-eligible voters (reference category: "other party"). The reliability values for most of the scales indicate an acceptable to very good level of internal consistency.[13] All individual items across the respective scales can be found in the method appendix.[14]

12 The NPD was renamed "Die Heimat" in 2023.

13 See Table (4) in the Methodology Appendix of the full version: https://www.idz-jena.de/forschung/iroek-fgz/appendix-article-radical-right-anti-climate-mobilization

14 See Table (3) in the Methodology Appendix of the full version: link above

4. Results of the Analysis: Which Factors Influence Attitudes on Climate and Climate Policies?

For our analysis, we evaluated attitudes towards the climate (Model 1: CCA) and climate policies (Model 2: CPA). We did so both individually and jointly across the dimensions 1) *socio-demographics* 2) *socio-economics*, 3) *perception of climate impacts* 4) *individual and institutional trust & media use*, 5) *political & cultural views* and 6) *voting behavior*. In the presentation of the results below, we only interpret effects that are described as significant, so that a coincidental occurrence of the effects can be ruled out with a high degree of probability (95 percent or greater).[15]

Let us first consider the results of the models on **climate (change) attitudes (CCA)**. Here, the *socio-demographic characteristics* clearly indicate that female respondents are significantly more likely to hold progressive views towards climate change and climate protection compared to male respondents. This tendency also applies to respondents whose place of residence is in metropolitan areas. In contrast, there is a negative correlation between progressive climate attitudes and individuals living in eastern Germany. At the *socio-economic level*, we can identify a positive correlation between both high- and low-income individuals vis-à-vis climate-progressive attitudes, as compared to those with mid-level incomes. The fact that climate-progressive attitudes are not necessarily a privilege held only by higher-income groups is also indicated by another characteristic related to concern for individual economic development. People with more economic concerns appear to be more likely to hold climate-progressive attitudes compared to middle and higher-income groups.

The next dimension shows that progressive climate attitudes significantly increase in line with *greater perception of the consequences of climate change*. This correlation is strongest among all characteristics included in the final model (across the model's z-standardized scale variables).[16] A high level of interest in politics and frequent consumption of public media also positively reinforce corresponding attitudes across the dimension of *individual and institutional trust & media use*. In contrast, the more frequent use of private and tabloid media shows to have a negative effect on climate attitudes.

At the *political-cultural level*, a total of 14 indicators were individually examined at the single-model level—taking into account socio-demographic and socio-economic variables (MS09). On account of a high degree of content and statistical

15 We apply the scientifically commonplace threshold of $p \leq 0.05$.

16 We included in the model both standardized metric scales and binary-coded variables (dummies) that cannot be standardized. On account of different scale properties, these are only comparable in relation to the same data level, but not across the different levels.

overlap, we only included a selection of variables and an aggregated scale for nine indicators in the full model (MS15).[17] In the first step (MS09), all of the analyzed political indicators presented highly significant levels of negative effects on climate attitudes; and positive effects were only found for the opposing characteristic, the "political left". This indicates that stronger affinities for right-wing political views, Authoritarianism, Social Dominance Orientation, communitarianism, populism and conspiracy ideology affinity—as well as negative attitudes towards migrants, refugees, Muslims, gender equality, diversity, social equality and COVID-19 measures—is correlated to more adverse (less progressive) attitudes on the climate. In the second step (MS10), in which we analyzed the political attitude variables in conjunction and relation to one another, highly significant negative correlations only appeared across the scales for cultural and social inequality and skepticism vis-à-vis COVID-19 measures. At the level of the MS14 model (voting behavior + socio-demographic and socio-economic indicators), we find a significantly higher degree of climate-progressive attitudes among respondents who intend to vote for the B90/Greens, LINKE and SPD parties. Significantly negative correlations in voting behavior can be identified for the AfD, followed by non-voters, the CDU and the FDP (MS14). In the full model (MS15),[18] positive effects were only found for the Greens and left-wing parties (B90 + LINKE) with negative effects identified for far-right parties (AfD + NPD + Republicans).

In the second model (CPA), we analyzed the influence of these same characteristics on our second dependent variable, the **attitudes towards climate policies**. None of the socio-demographic variables turned out to be significant for CPA. Along the *socio-economic dimension*, lower income and acute personal economic concerns reinforce skepticism towards climate policies. Conversely, higher income levels and fewer economic concerns lessen this effect. We did not find any significant correlations between the characteristics of *perceptions of climate impacts* and *individual & institutional trust* in relation to attitudes towards climate policies. For the *political & cultural attitudes dimension*, we first consider the individual effects (MS09) of the dimension variables, taking socio-demographic and socio-economic characteristics into account. Almost all of the political indicators (except attitudes towards social inequality) analyzed here (see results section on climate attitudes) show to have a positive reinforcing effect on climate-progressive

17 In the final model, the scales for skepticism towards migration and refugees, gender inequality, Islamophobia and nationalism were combined into the overarching scale of cultural inequality (group enmity), and we excluded the cosmopolitanism versus communitarianism scale due to high correlation values (Pearson correlation: .738).

18 Here, we combined the B90/Greens and DIE LINKE into "green-left parties", the SPD, CDU and FDP into "mid-right parties" and the AfD, NPD, Die Rechte, Republikaner into "radical-right parties" so that their VIF remained < 5.

attitudes—with the exception of the political self-assessment "left" (negative correlation). In the full model (M15), we reexamined nine political attitude variables together and in relation to one another. The results show a positive correlation with skeptical attitudes about climate policies on the scales for populism, affinity for conspiracy ideology, COVID-19 denial and cultural inequality. Reflecting the influence of voting behavior on CCA, the intention to vote for the B90/Greens and DIE LINKE had a negative correlation with climate policy skepticism (CPA) and the intention to vote for the AfD, abstainers and FDP showed a positive correlation (MS14), whereas in the full model only the negative effect for green and leftist parties remain significant (MS15).

5. Summary of Results: Cultural and Social Fault Lines of Conflict Over the Climate

With an extensive data set and a large number of relevant variables, our study is able to analyze central relationships, particularly with regard to the differences between general climate attitudes and climate policy attitudes, which, with their empirical findings, speak to the international research debate as well as to the critical observation of current climate conflicts in Germany. Our results confirm most of the assumptions (see hypotheses in Chapter 3) for our data. The first assumption (H.1) stated that attitudes towards the climate and climate policies represent two different and relatively independent phenomena. The results of our factor analysis (see Chapter 4) clearly confirm this assumption. As the other hypotheses place greater focus on the question of which characteristics across the dimensions are particularly relevant or irrelevant for attitudes on the climate and climate policies, we compared the explanatory power of the individual dimensions to one another (see Table 1 in the appendix).

We use the so-called Akaike information criterion (AIC) to evaluate the explanatory power of the dimensions which helps us identify how well the variables within this dimension[19] describe data on climate and climate policy attitudes, as compared to a model including the variables of all dimensions (full model M15). By far, we find the strongest single explanatory power on both the climate (61.4 percent) and climate policies (86.8 percent) captured by models that only include variables for the political-cultural dimension (MS10 in each case). In contrast, the

19 As variables across different dimensions are often prone to high degrees of overlap in the correlation relationships with the dependent variable, adding dimensions together does not result in 100 percent (full model).

explanatory power of the variables from the socio-demographic dimension (CCA: 12.1 percent and CPA: 13.8 percent) and the socio-economic dimension (0.8 percent and 38.0 percent) shows to be weaker in part. This supports our second assumption (H.2) stating that political and cultural characteristics have the greatest influence on climate attitudes.

For the assumption (H.3) that attitudes towards climate policy are primarily determined by material concerns, we arrive at rather ambivalent results: while the explanatory power of socio-economic variables (especially income and individual economic concerns) for climate policy attitudes is, as assumed, much higher than for climate attitudes (38 percent versus 0.8 percent), political and cultural characteristics also play the most significant role (by far) in terms of attitudes towards climate policies (86.8 percent). This suggests that economic concerns and reservations about climate policies closely correspond with objective socio-economic disadvantages and/or pessimistic assessments of individuals' own economic situations. Concurrently, these findings reinforce the idea that *relative fault lines* dividing attitudes on the climate and climate policies are much more likely to run along *political-cultural* lines; while the *social and economic* dimension shows to have only limited influence on climate attitudes, it does have an impact on the assessment of climate policies. Personal *perceptions of climate impacts* are shown to have a strong positive correlation with climate-progressive attitudes (29.3 percent), yet they hardly play a role in relation to attitudes on climate policies (0.3 percent). *Individual, institutional trust and media use* is another relevant dimension (CPA: 36.4 percent and CCA: 21.1 percent). Finally, the relatively strong explanatory power ascribed to *voting behavior* (CCA: 39.8 percent and CPA: 44.9 percent) illustrates just how much conflicts over political values are differentiated at the party-political level.

Hypothesis H.4 assumed that the relevance of political factors in influencing climate attitudes (H.1) results from the fact that climate attitudes fit within a broader political conflict between more egalitarian, inclusive and cosmopolitan attitudes versus more anti-egalitarian, exclusive and nationalistic attitudes. To test this, we analyzed the traditionalism vs. liberalism-scale and attitude data considering gender, migration and skepticism about COVID-19 measures. Both the individual characteristics (rejection of migration, refugees, Muslims, gender equality and nationalism) and the joint analysis (the aggregated scale of these characteristics) show a relatively high degree of correlation, indicating that these topic clusters are closely linked. At the same time, the model (MS12) shows that the short scale on traditionalism vs. liberalism communitarian attitudes also has a relatively high level of negative effects on climate attitudes, confirming the overall assumptions of the hypothesis (H.4).

Lastly, we tested the assumption that political conflicts over how to deal with the COVID-19 pandemic and the associated democratic organization during the crises are related to climate attitudes (H.5). Our analysis revealed relatively high, significant effects on both attitudes towards the climate and the evaluation of climate policies. The stronger one's rejection of COVID-19 measures is, the more regressive their attitudes are towards climate issues, and the more skeptical they are to climate policies.

6. Conclusion: Defending Inequalities in the Conflict over the Energy Transition

To conclude we will summarize the key findings and discuss the above-mentioned questions regarding their relevance for social and democratic cohesion. According to an understanding of social cohesion that assumes a diversity of different and sometimes competing ideas of "good coexistence" within society, the focus is particularly directed on mechanisms and structures that increase or weaken the capacities of social integration regarding this diversity of "cohesion concepts" (Forst, 2020, p. 43) in democratic societies. Our analysis is therefore particularly interested in the dynamics that reinforce polarization tendencies, understood as the process of a "falling apart of society into different groups" (Task Force FGZ, 2022), regarding conflicts around the "climate".

Our analysis highlights a clear tension between climate-progressive attitudes among greater parts of the German population and skepticism towards climate policies, regarding their social and economic impacts. While this may not be an unprecedented discovery, we view this insight as key to understanding why—despite seemingly favorable starting conditions in terms of underlying pro-climate protection attitudes—the overall mood concerning climate policies can shift so quickly. This is particularly relevant when climate policy encounters the social, material and cultural realities of individuals and social groups.

With regard to demographic and spatial aspects, climate-progressive attitudes tend to be less widespread among men and in Eastern Germany, particularly outside of the large urban areas. Another significant influence is the individual perception of climate impacts: the more strongly respondents perceive the impacts of the climate crisis personally (e.g., extreme weather events), the more likely they are to hold progressive attitudes towards climate issues. The opposing effects of public media (positive effect) and private (tabloid) media (negative effect) on climate attitudes likely also relate to the public mandate in Germany to provide a comprehensive basic source of information and education

to ensure detailed reporting on climate issues, as compared to the will or capacity of some privately organized media channels. Some popular, tendentially right-wing (tabloid) media in Germany (e.g., the newspapers *Welt* and *Bild*) have also publicly advocated climate-skeptical positions in the past (Quent, 2022), fueling debates on climate protection measures in an, at times, populist manner.

Turning to the social dimension of climate conflicts, our analysis of the socio-economic indicators most starkly reveals the divisive element across both dimensions (CCA and CPA). Skeptical assessments of climate policies are closely linked to material concerns and perceptions of deprivation. This clearly indicates that concerns about the economic consequences of climate protection policies are directly connected to overall economic concerns as well as to an individual's objective income situation. However, taking into account the relatively small effect size of low household incomes in the regression models, it seems likely that the rejection of climate protection policy also arises from more economically privileged parts of the population fearing losses in prosperity and probably therefore defeating future changes. If we look at climate attitudes, a different picture emerges. The fact that respondents with lower incomes and greater economic concerns tend to hold more climate-progressive attitudes shows that climate protection on the level of attitudes is not a privilege of economically privileged population groups. This brings us to conclude that the social line of conflict on climate issues does not mainly run between those who consider climate protection to be important and necessary and those who fundamentally reject climate protection. Rather, the fault line arises between climate protection as a normative necessity and the acceptance of the effects of concrete measures on everyday personal life.

The most marked catalysts of polarization in societal conflict surrounding climate change, however, are political and cultural views. Societal conflicts over the climate appear to be embedded in a broader political field of conflict. Egalitarian, liberal and cosmopolitan value orientations have a positive effect on climate-progressive attitudes and a negative effect on skeptical attitudes towards climate policy, while anti-egalitarian, exclusive and more right-wing authoritarian attitudes have the opposite effect. The results of our analysis suggest that attitudes promoting cultural and social inequality directed against specific social groups (regarding asylum, migration, ethnicity, and gender) have a far greater negative influence on climate protection attitudes than more generalized predispositions and attitudes such as Authoritarianism, Social Dominance Orientation, populism, and affinity for conspiracy ideology. In contrast to climate attitudes, climate policy-skeptical attitudes exhibit clear positive effects along with populism, conspiracy ideology affinity and cultural inequalities beliefs.

The *close interlinkage of regressive climate attitudes and low climate policy confidence with anti-egalitarian world views* points to an intimate connection with exclusionary

and climate-regressive patterns of interpretation among segments of the population. In addition to emotional and heated debates surrounding an influx of refugees, this also provides favorable opportunity structures for climate-regressive and chauvinistic patterns of interpretation for the radical right-wing AfD. The polarizing tensions of political and cultural attitudes regarding climate issues are also reflected in party politics, particularly between supporters of the Green Party and AfD. The tendency to support climate-regressive and climate policy-skeptical attitudes can, however, also be identified among some of the supporters of the conservative CDU/CSU and the market-liberal FDP parties. This points to the key role played by parties and media mentioned above regarding the rejection of climate protection and reveals their particular responsibility for social and democratic cohesion in the process of social-ecological transformation. In particular the political gains that the AfD is currently predicted to achieve must be interpreted as a serious threat to democratic cohesion and, in light of the party's regressive position on climate policies, to climate protection more broadly.

The results of this study highlight the key role played by perceptions of inequality in both social and cultural terms. This brings us to conclude that the different yet closely interrelated political and cultural attitude dimensions represent a sort of defensive culture reaction to pressure for social transformation. The greatest common denominator among them seems to be the justification and defense of social and cultural inequalities, which come into question in the context of managing the climate crisis, especially in relation to maintaining the status quo. Placing attitudes towards social and cultural inequality at the center of our analysis allows us to draw connections between the global structures of inequality arising from the climate crisis and the ensuing defense mechanisms against climate protection and climate justice within societies that have hitherto benefited from these structures. Moreover, this allows us to join different lines of research on politically and strategically motivated defense against climate protection (e.g., covering pro-fossil fuel, radical market and right-wing conservative voices to the radical right-wing spectrum). In this interpretation, exclusionary, climate-regressive interpretations fulfill key individual as well as collective functions, providing a bridging narrative between different social milieus. At an individual and a collective level, they correspond to the social demand for relief strategies in response to pressure and conflict perceived to be arising from transformation (McCright et al., 2016). In the wake of increasing social needs for action in the context of the climate crisis, this situation could grow more acute in the future.

At first glance, the relatively high approval ratings enjoyed by climate-progressive attitudes in Germany are indicative of a political environment favorable to climate protection. At the same time, however, the ambivalent assessments of climate policies by the majority of the populace, and their associated material con-

cerns, also reveal a relatively high degree of reservation. On the one hand, this situation can turn into a gateway for regressive interpretations of climate protection that position climate protection measures against fears of losing economic status and overall decline. The positive links between climate policy skepticism and populism, conspiracy-ideology affinities and ideas of inequality point to strong political fault lines in the implementation of climate protection policy. At the same time, however, this also presents opportunities for getting democratic majorities to rally behind concrete climate protection measures, provided that the expected high costs of individual and collective transformation are consistently absorbed via social policies and redistributed in a socially acceptable manner.

Apart from a suitable policy of social equalization, an inclusive and participatory discourse along with opportunities for participation in the energy transition must also be more strongly communicated. Many positive examples from municipalities across Germany reveal that specific climate protection measures enjoy a higher level of acceptance in locales where climate protection is implemented in a participatory and democratic manner and even benefits the shared public wealth of the respective communities, while also increasing overall democratic participation (Reusswig & Schleer, 2021). This, in turn, can curb the appeal of populist, anti-democratic and regressive climate protection policies and thereby encounter the erosion of societal cohesion in times of transformation.

In January and February 2024, hundreds of thousands of citizens in Germany engaged in street protests against AfD, its racist ideology and anti-democratic politics. Climate justice groups joined in mass in those protests, underlining the close connection between threats to liberal democracy imposed by right-wing extremism and the aversion or resistance against progressive climate protection policy that is fueled by the ideology of ethnocentric status protection and the defense of material and cultural privileges. To encounter further polarization of society and to enable it to reach out to those factions of the population which (are prone to) support AfD and its "anti-green" climate policy it is vital to address the above-mentioned ideological and programmatic interlinkage as well as the related substantial risks and dangers. To put it in the words of prominent German climate justice activist, Luisa Neubauer, "We will not fight the climate crisis if fascists demolish democracy."[20] It is note-worthy that, according to the latest public surveys, a clear majority of Germans fears that this demolition is a scenario that has become far too realistic to be ignored any longer.

20 Neubauer, L., & Sternberg, J. (2024, February 3). *Luisa Neubauer über Demonstrationen: "Ein sehr mutiger Beginn in diesem sehr schwierigen Jahr"*. Redaktionsnetzwerk Deutschland (RND).

Appendix

Appendix 1) Explanatory power (AIC) of the single model steps (dimensions)

		Climate change attitudes (CCA)		Climate policy attitudes (CPA)	
Model	**Dimensions**	**AIC***	**AIC-change (%)****	**AIC**	**AIC-change (%)**
MS01	Base (null) model	13827,2	0,0	12932,1	0,0
MS02	Socio-demographics	13555,2	12,14	12706,2	13,8
MS03	Socio-economics	13808,9	0,82	12309,5	38,1
MS04	MS02 & MS03	13551,3	12,32	12178,3	46,2
MS05	Perception of climate risks	13169,9	29,34	12927,1	0,3
MS06	Perception of climate risks & MS04	12881,6	42,21	12155,0	47,6
MS07	Trust & media perception	13354,6	21,10	12336,4	36,5
MS08	Trust & media perception & MS04	13140,9	30,64	11920,3	62,0
MS09***	Pol. attitude (single item rotation) & MS04	-	-	-	-
MS10	Pol. attitude (selection + cult. inequality)	12452,6	61,36	11496,5	87,9
MS11	Pol. att. (selection + cult. inequality) & MS04	12311,3	67,67	11336,9	97,7
MS12	Pol. att. (selection + tradt. vs. liberal.) & MS04	12507,1	58,93	11410,6	93,2
MS13	Voting intention	12934,9	39,83	12275,6	40,2
MS14	Voting intention & MS04	12780,3	46,73	11796,0	69,6
MS15	Full model (+ Bootstrapping)	11587,1	100,00	11299,0	100,0

** The Akaike information criterion (AIC) measures the extent to which variance in the data can be explained by one model relative to other models. The lower the value, the better the model fit.*

*** Percentage of AIC reduction of a model in relation to the total explanatory power, as given by the difference between the full model and the base (null) model. The single values do not add up to 100% due to shared variance between the different variables.*

**** MS09 consists of several models whereby each single political/cultural item was rotated into one model containing all variables of MS04, so that the AIC-values are different for each model.*

Table 1: Explanatory power (AIC) of the single model steps (dimensions).
Source: FGZ/risc; Data: German Social Cohesion Panel (SCP) Wave 1 & 2

Table 2) Results of mixed regression models for climate change attitudes (CCA) & climate policy attitudes (CPA)[a]

		MS09[b]: Single item-rotation for political attitudes + socio-demogr. and socio-econom. var.				MS11: Pol. att. (selection with cult. inequ.) + socio-demogr. and socio-econom. var.				MS12: Pol. att. (selection with tradt. vs. liberal.) + socio-demogr. and socio-econom. var.				MS14: Voting intention + socio-demogr. and socio-econom. var.				MS15: Full model (all variables)			
Dimension	Variables	CPA		CCA		CCA		CPA		CCA		CPA		CCA		CPA		CCA		CPA	
		Est.	Sign.[c]	Est.	Sign.	Est.	Sign.	Est.	Sign.	Est.	Sign.	Est.	Sign.	Est.	Sign.	Est.	Sign.	Est.	Sign.	Est.	Sign.
	Constant	div.	div.	div.	div.	-0,126	**0,011**	-0,125	**0,015**	-0,113	**0,025**	-0,138	**0,009**	-0,229	**0,016**	-0,187	**0,025**	-0,280	**0,001**	-0,141	0,060
Demo-graphy	Female (ref. male)[d]	div.	div.	div.	div.	0,168	**0,001**	-0,011	0,763	0,196	**0,001**	-0,026	0,467	0,189	**0,001**	-0,027	0,436	0,172	**0,001**	-0,003	0,936
	Age	div.	div.	div.	div.	0,039	0,128	0,000	0,999	0,046	0,052	-0,009	0,624	0,050	0,100	-0,014	0,472	-0,014	0,652	-0,015	0,498
	Education: no qualification[d]	div.	div.	div.	div.	-0,111	0,444	0,032	0,861	-0,184	0,182	0,087	0,604	-0,296	0,117	0,263	0,109	-0,060	0,642	0,045	0,786
	Education: primary (ref. tertiary)[d]	div.	div.	div.	div.	-0,110	0,124	0,023	0,792	-0,141	0,058	0,043	0,580	-0,123	0,101	0,163	**0,034**	0,008	0,917	0,004	0,961
	Education: secondary (ref. tertiary)[d]	div.	div.	div.	div.	-0,104	**0,012**	0,037	0,473	-0,123	**0,016**	0,049	0,374	-0,131	**0,008**	0,138	**0,012**	-0,042	0,325	0,021	0,675
	East German districts (ref. west)[d]	div.	div.	div.	div.	-0,172	**0,001**	0,034	0,087	-0,201	**0,001**	0,048	**0,024**	-0,163	**0,001**	0,076	**0,003**	-0,158	**0,001**	0,039	0,061
	Area: medium urban (ref. rural)[d]	div.	div.	div.	div.	0,021	0,349	0,014	0,450	0,028	0,212	0,013	0,501	0,049	**0,035**	-0,009	0,623	0,029	0,156	0,011	0,560
	Area: large urban area (ref. rural)[d]	div.	div.	div.	div.	0,066	**0,008**	-0,038	0,121	0,088	**0,001**	-0,046	0,090	0,136	**0,001**	-0,130	**0,001**	0,086	**0,001**	-0,024	0,400
Economy	Houshold net income (low)[d]	div.	div.	div.	div.	0,038	0,078	0,047	**0,007**	0,039	0,056	0,048	**0,011**	0,081	**0,002**	0,062	**0,001**	0,047	**0,014**	0,053	**0,005**
	Houshold net income (high)[d]	div.	div.	div.	div.	0,089	**0,001**	-0,063	**0,003**	0,101	**0,001**	-0,069	**0,002**	0,048	**0,029**	-0,112	**0,001**	0,045	**0,031**	-0,059	**0,005**
	Personal economic worries (low)[d]	div.	div.	div.	div.	-0,156	0,099	-0,229	**0,001**	-0,144	0,150	-0,234	**0,001**	-0,131	0,139	-0,251	**0,001**	-0,140	0,057	-0,217	**0,003**
	Personal economic worries (high)[d]	div.	div.	div.	div.	0,128	**0,016**	0,231	**0,001**	0,117	**0,030**	0,238	**0,001**	0,117	**0,020**	0,316	**0,001**	0,101	**0,036**	0,225	**0,001**
	Deprivation (low)[d]	div.	div.	div.	div.	0,084	0,162	-0,059	0,369	0,078	0,222	-0,056	0,367	0,134	**0,049**	-0,137	**0,030**	0,035	0,593	-0,050	0,426
	Deprivation (high)[d]	div.	div.	div.	div.	0,002	0,976	0,020	0,582	-0,024	0,726	0,036	0,324	-0,021	0,711	0,114	**0,003**	-0,005	0,918	0,023	0,568
Perception	Perception of climate impacts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0,252	**0,001**	-0,027	0,129
Trust &	Generalized trust (high)[d]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0,005	0,924	-0,032	0,380
Media use	Political interest (high)[d]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0,103	**0,017**	-0,015	0,697
	Collective efficiacy (high)[d]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0,063	0,135	0,050	0,153
	Support for democracy (low)[d]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0,085	0,610	0,126	0,315
	Distrust in institutions (high)[d]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0,024	0,389	0,007	0,780
	Media use (public media)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0,057	**0,021**	0,022	0,388
	Media use (daily/weekly newspaper)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0,032	0,144	0,000	0,986
	Media use (private/tabliod)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0,045	**0,040**	0,025	0,127
Political &	Authoritarianism	-0,074	**0,016**	0,124	**0,001**	0,045	0,111	0,029	0,190	0,038	0,221	0,026	0,236	-	-	-	-	0,040	0,119	0,019	0,402
cultural	Social dominance orientation	-0,165	**0,001**	0,094	**0,001**	-0,027	0,286	0,009	0,691	-0,050	**0,043**	0,021	0,287	-	-	-	-	-0,014	0,520	0,003	0,870
attitudes	Populism	-0,095	**0,002**	0,209	**0,001**	0,024	0,407	0,058	**0,028**	-0,007	0,798	0,075	**0,001**	-	-	-	-	0,036	0,183	0,059	**0,016**
	Conspiracy affinity	-0,125	**0,001**	0,267	**0,001**	0,007	0,855	0,147	**0,001**	-0,034	0,402	0,171	**0,001**	-	-	-	-	0,033	0,412	0,137	**0,001**
	Pol. self-assesment (right)[d]	-0,416	**0,001**	0,339	**0,001**	-0,122	**0,048**	0,086	0,078	-0,175	**0,008**	0,111	**0,020**	-	-	-	-	-0,062	0,318	0,080	0,107
	Pol. self-assesment (left)[d]	0,412	**0,001**	-0,293	**0,001**	0,131	**0,030**	-0,102	**0,015**	0,156	**0,006**	-0,108	**0,011**	-	-	-	-	0,070	0,178	-0,053	0,212
	Sceptism toward corona-measures	-0,268	**0,001**	0,178	**0,001**	-0,206	**0,001**	0,056	**0,011**	-0,234	**0,001**	0,073	**0,002**	-	-	-	-	-0,158	**0,001**	0,051	**0,027**
	Advocacy of social inequality	-0,215	**0,001**	0,040	0,121	-0,164	**0,001**	-0,002	0,899	-0,178	**0,001**	0,005	0,800	-	-	-	-	-0,124	**0,001**	-0,019	0,360
	Cultural inequality beliefs	-0,357	**0,001**	0,310	**0,001**	-0,273	**0,001**	0,178	**0,001**	-	-	-	-	-	-	-	-	-0,185	**0,001**	0,157	**0,001**
	Traditionalism vs. libralism	-0,243	**0,001**	0,225	**0,001**	-	-	-	-	-0,127	**0,001**	0,111	**0,001**	-	-	-	-	-	-	-	-
	Sceptism towards migration	-0,244	**0,001**	0,228	**0,001**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Islamophobia	-0,224	**0,001**	0,236	**0,001**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sceptism towards refugees	-0,260	**0,001**	0,268	**0,001**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nationalism	-0,201	**0,001**	0,182	**0,001**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Gender inequality beliefs	-0,336	**0,001**	0,191	**0,001**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 2.1: Results of mixed regression models for climate change attitudes (CCA) & climate policy attitudes (CPA).
Source: FGZ/risc; Data: German Social Cohesion Panel (SCP) Wave 1 &2

Table 2) Continued

Dimension	Variables	MS09[b]: Single item-rotation for political attitudes + socio-demogr. and socio-econom. var.				MS11: Pol. att. (selection with cult. inequ.) + socio-demogr. and socio-econom. var.				MS12: Pol. att. (selection with tradt. vs. liberal.) + socio-demogr. and socio-econom. var.				MS14: Voting intention + socio-demogr. and socio-econom. var.				M15: Full model (all variables)			
		CPA		CCA		CCA		CPA		CCA		CPA		CCA		CPA		CCA		CPA	
		Est.	Sign.[c]	Est.	Sign.	Est.	Sign.	Est.	Sign.	Est.	Sign.	Est.	Sign.	Est.	Sign.	Est.	Sign.	Est.	Sign.	Est.	Sign.
Voting Intention	*Voting intention (ref. other parties)*[d]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Left-green parties	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0,291	**0,002**	-0,178	**0,018**
	B90/Grüne (Greens)	-	-	-	-	-	-	-	-	-	-	-	-	0,629	**0,001**	-0,427	**0,001**	-	-	-	-
	LINKE (socialists)	-	-	-	-	-	-	-	-	-	-	-	-	0,446	**0,007**	-0,298	**0,003**	-	-	-	-
	Center-right parties	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0,017	0,791	0,067	0,190
	SPD (social democrats)	-	-	-	-	-	-	-	-	-	-	-	-	0,205	0,053	-0,073	0,318	-	-	-	-
	CDU (conservatives)	-	-	-	-	-	-	-	-	-	-	-	-	-0,138	0,177	0,079	0,280	-	-	-	-
	FDP (liberals)	-	-	-	-	-	-	-	-	-	-	-	-	-0,246	**0,024**	0,153	0,070	-	-	-	-
	Far-right parties	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0,333	**0,008**	0,053	0,563
	AfD (far right)	-	-	-	-	-	-	-	-	-	-	-	-	-0,811	**0,001**	0,448	**0,001**	-	-	-	-
	NPD, Rechte, Republikaner (far right)	-	-	-	-	-	-	-	-	-	-	-	-	-0,270	0,252	-0,048	0,915	-	-	-	-
	No voting intention	-	-	-	-	-	-	-	-	-	-	-	-	-0,322	**0,036**	0,219	**0,015**	0,000	1,000	0,021	0,858
Summary	N	4948		4948		4948		4948		4948		4948		4948		4948		4948		4948	
	AIC	div.		div.		12311		11337		12507		11411		12780		11796		11587		11299	
	BIC	div.		div.		12324		11350		12520		11424		12793		11809		11600		11312	
	Random:variance (housholds)	div.		div.		0,376		0,274		0,396		0,274		0,430		0,297		0,305		0,264	
	AIC-change[e]	div.		div.		1515,9		1595,2		1320,1		1521,5		1046,9		1136,1		2240,1		1633,1	
	AIC-change (%)[f]					**67,7**		**97,7**		**58,9**		**93,2**		**46,7**		**69,6**		**100,0**		**100,0**	

[a] *Selected results of the mixed models (random intercept = households) with bootstrap (1,000 samples), for different variable combinations on climate attitudes (CCA) and climate policy attitudes (CPA), showing the estimates (est.) and significance levels (sign.)*

[b] *MS09 consists of 15 different models rotating each of the political variables by its own into the model, while controlling for the same set of socio-demographics and socio-economics. Parameters set "div." indicates that the values vary according to the different models.*

[c] *All significance levels below .05 are marked in bold and treated as significant outcomes.*

[d] *Dummy variables (binary coded), all other items are z-standardized mean scales.*

[e] *Indicates the absolute amount of variance improvement of the AIC of a single model compared to the maximum span (CCA: 2240; CPA: 1633) the full model explains in relation to the so-called null model (not shown here: AIC-CCA$_0$ = 13827; AIC-CPA$_0$ = 12932).*

[f] *Percentage of AIC-change above*

Table 2.2: Results of mixed regression models for climate change attitudes (CCA) & climate policy attitudes (CPA).
Source: FGZ/risc; Data: German Social Cohesion Panel (SCP) Wave 1 &2

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