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# Governing the Climate in the Paris Era: Organized Irresponsibility, Technocratic Climate Futures, and Normalized Disasters

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## ABSTRACT

Foucauldian governmentality studies of climate politics have established themselves as a vibrant field of research, illuminating the power-knowledge-formations inherent in governing climate change. Synthesizing the contributions of climate governmentality studies since 2015, we provide a critical assessment of the technologies of government and the resulting visibilities and identities in the context of the Paris Agreement. Our reading of the current “cli-mentality” reveals a much higher continuity from the Kyoto era to the Paris era than generally assumed by dominant IR approaches. The cli-mentality of the Paris era radicalizes the neoliberal approach of the Kyoto era while extending its reach into more policy sectors. The responsabilisation of states, sub-state actors and individuals obscures root causes of the climate crisis and reproduces key elements of the socio-economic and political order. The dominant problematisation of climate change in both academia and policymaking narrows down the solution space for climate politics and forecloses transformative approaches. Climate mitigation mobilizes neoliberal self-governance through nationally-determined contributions while obscuring unequal historical responsibilities. Adaptation is organized in depoliticized processes of preparing for presumably inevitable climate futures. This is reinforced by climate finance which employs financialisation and de-risking to mobilize additional private capital. Climate-related loss and damage funding is rendered as charity, foreclosing liability and reparation claims. Future research should examine (1) how the dominant cli-mentality is resisted and challenged by social movements and climate litigation, (2) if and how it is stabilized through the global economic order and its regulations, and (3) which globally varying effects the cli-mentality has.

## 1 | Introduction

Since the signing of the 1992 UN Framework Convention on Climate Change (UNFCCC), the global climate regime has evolved and changed. Today, governing climate change goes far beyond multilateral negotiations. Succeeding the binding emission reduction goals of the Kyoto Protocol, the 2015 Paris Agreement operationalizes voluntary commitments and

mobilizes NGOs, cities, and businesses as partners for climate action. Dominant approaches in International Relations (IR) state that the Paris Agreement has brought a “new logic” (Falkner 2016) to international climate governance, moving from a top-down approach of the Kyoto era to a bottom-up approach, or from a “regulatory” to a “catalytic and facilitative” regime (Hale 2016). At the same time, global greenhouse gas emissions are still rising, reaching new record heights. In

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response, mainstream International Relations scholarship has asked how to enhance the effectiveness of the climate regime, raise state ambitions, or catalyze non-state climate action to bend the emissions curve. Global governance approaches and polycentrism focus on how to engage nonstate actors, leverage the potential of experimentation and learning, and develop new forums for “more effective” climate action (e.g., Jordan et al. 2018; Kellner, Petrovics, and Huitema 2024).

Foucauldian climate governmentality studies suggest that we need to ask different questions to understand and escape the impasse of global climate governance. A key insight of this growing literature is that the dominant *problematization* of climate change in global governance and mainstream International Relations debates narrows down the solution space and forecloses transformative climate action. Accordingly, an intensification of climate ambitions and actions within dominant power-knowledge configurations and discourses ignores the root causes of the climate crisis and reproduces existing power relations. While institutionalist scholars mainly take problem framings as given, governmentality scholars point out how the constitution of climate change as an object of political intervention is already highly contested and therefore political (Stripple and Bulkeley, 2014, Lövbrand and Stripple 2014). Objects of government are not seen as pre-existing but as effects of “the historically contingent practices” (Lövbrand and Stripple 2015, 93) that produce them, or “render them governable” (Oels 2005). These problematisations shape the space for thinkable solutions and assign responsibilities, for example, depending on whether climate change is rendered as a global or local problem. In line with other object-centered approaches, change is no longer seen as requiring actor learning but as requiring a reconfiguration of the complex process in which the object of climate change is problematized in one way rather than another (Allan 2018, 859).

Reviewing the Foucauldian scholarship on international climate politics since 2015, this paper asks: What do governmentality studies reveal about how climate change is problematized and rendered governable in the context of the 2015 Paris Agreement? And what does the resulting solution space look like? Following a Foucauldian logic, the object of analysis is not limited to the text of the Paris Agreement but includes the many ways in which the Paris Agreement creates a web of relations between physical objects, legal texts, subject positions, and governmental architectures.

Our alternative reading of the Paris era responds to recent calls to reflect upon and question the power relations and knowledge regimes that underpin global climate policy (Lövbrand et al. 2015; Nightingale et al. 2019; Stoddard et al. 2021). Mainstream theories of International Relations have been accused of co-producing the politics of the status quo (Fricke 2001). In light of this, there is a need to re-think academic conceptualisations of climate politics to disrupt hegemonic power-knowledge configurations, and thereby, to enable transformative climate action. Foucauldian cli-mentality studies aim to deconstruct dominant problematisations in both policymaking and academia and have the potential to reconfigure the solution space.

Our critical account of the current “cli-mentality” reveals a much higher continuity from the Kyoto era to the Paris era than

generally assumed by dominant IR approaches. Rather than a paradigm change, the cli-mentality of the Paris era is an extension of neoliberal rule that goes back to the Kyoto Protocol. The cli-mentality of the Paris era is characterized by neoliberal government on a biopolitical foundation, that is, a reliance on the self-governance of actors like states, businesses, or vulnerable communities. The narrow problematization of climate change as an issue of excessive carbon emissions renders structural drivers of rising emissions, global injustices, and vulnerabilities to climate change invisible. This leads to a depoliticisation of climate adaptation politics and the gradual normalization of disastrous climate futures.

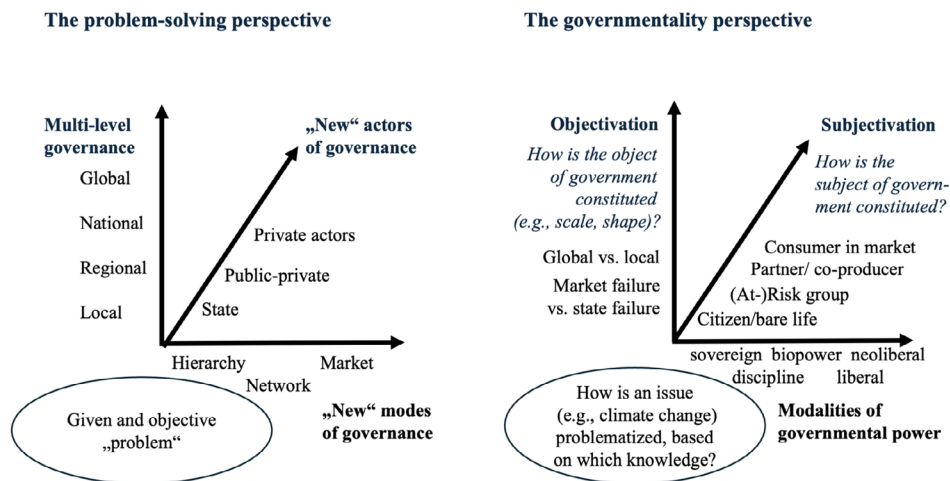
Our article begins with a brief introduction to the concept of governmentality and how it is used in this paper. Next, a methodological section explains how the articles for this review were selected. In the main body of the paper, we present the findings of the Foucauldian literature on the cli-mentality of the Paris era. We sort the findings into mitigation, adaptation, climate finance and technology transfer, and Loss and Damage. In the discussion and conclusion, we discuss the added value and the limitations of climate governmentality studies and avenues for further research.

## 2 | Theoretical Approach

The reviewed papers all take an object-centred approach, that is, they ask how the issue of climate change is constituted as an object of governance, based on which knowledge and through which processes, including which technologies of government (Allan 2018; Corry 2013, 2024; Esguerra 2024). The concept of governmentality, as developed by the French philosopher Michel Foucault, offers a broad understanding of government that exceeds the actions of individual (state) actors. According to Foucault, governmentality describes an “ensemble formed by institutions, procedures, analyses and reflections, calculations, and tactics” (Foucault 2007, 108) that is productive of a particular problematisation of an object such as climate change. The way in which climate change is “rendered governable” (Oels 2005) through this ensemble shapes the solution space for climate action. Governmentality studies point toward the contingency of current ways of knowing and governing and examine which alternative voices are rendered invisible. Going beyond notions of policy effectiveness within the existing sociopolitical system, governmentality analyses are therefore well-equipped to raise more fundamental critiques of how climate change is problematized in global politics and academic debates (Lövbrand and Stripple 2015).

Figure 1 shows what kind of research questions tend to be asked from a problem-solving perspective and from a governmentality perspective. A governmentality perspective asks how the object of government is problematized (e.g., global or local), how subjects of government are constituted, and which modalities of power are used in the act of governing. In contrast, a problem-solving perspective tends to naturalize a dominant problem definition as “given” or “pre-existing”.

In his lectures at the Collège de France 1977–78, Foucault (2007) reconstructed how the dominant rationalities and technologies



**FIGURE 1** | The differences between mainstream IR approaches and a governmentality perspective.

of government have changed since the 15th century. He distinguished between sovereign power, disciplinary power, biopower, and neoliberal government (and some others), which appeared over the course of history. Each of these power types renders an object governable in a particular way by drawing upon distinct bodies of knowledge to create specific problematisations, subjectivities, and instruments of governing. Sovereign power enables punishment sanctioned by law, representing a prohibitive and “negative” form to “say no to any individual’s desire” (Foucault 2007, 73). Disciplinary power, in contrast, produces forms of desired behavior through a range of techniques such as surveillance (Foucault 1982). Biopower constitutes individual bodies as a population and then governs this population using statistics. It is a form of government that seeks to optimize the vitality and productivity of the population through technologies such as risk management. Governmental interventions strive to “bring the most unfavourable [distributions of normality] in line with the more favourable” (Foucault 2007, 63). Finally, neoliberal government, a variant of which is known as advanced liberal government, operates through market creation and incentives like rankings that “govern at a distance” (Rose and Miller 2010). Making use of technologies of subjectivation, neoliberal government addresses the individual as a free subject. By inserting the individual into a market setting, the individual is supposed to internalize the rationality of political economy, ultimately self-optimizing (“conduct of conduct” (Gordon 1991, 48)).

Although Foucault identifies a historical shift towards more subtle and indirect modes of (neoliberal) government, this does not mean that disciplinary and sovereign power have disappeared (Foucault 2007, 107). Instead, they have been “recasted and governmentalized—integrated into a scheme of liberal government in order to back up and ensure its proper functioning” (Dean 2009, 30). Therefore, Collier (2009, 100) has proposed a “topological analysis” that “show[s] how styles of analysis, techniques or forms of reasoning associated with ‘advanced liberal’ government are being recombined with other forms.”

Critics have argued that governmentality scholarship tends to apply a homogenizing and overly (neo-) liberal reading of world politics, ignoring the material realities and violent character of power relations in non-Western societies (Selby 2007;

Joseph 2009, 2010; Lemke 2016, 87–91; Death 2014, 82). The applicability of the governmentality concept to the global realm has, therefore, been subject to fierce debate (Larner and Walters 2004; Busse and Hamilton 2021; Jaeger 2023; Neumann and Sending 2021). Recently, there has been a new impetus to apply Foucauldian concepts to International Relations scholarship (Busse and Hamilton 2021; Bonditti, Bigo, and Gros 2017), and the governmentality concept is applied to various realms of international politics (see Walters and Tazzioli 2023).

The governmentality concept has been understood and used in conflicting ways in the literature (Walters 2012). In line with most of the recent climate governmentality contributions, we understand it as an “analytical toolbox” (Rose, O’Malley, and Valverde 2006, 100) rather than as a theory of neoliberal government (see Death 2014). “[W]hile the concept of climate governance has had a tendency to assume order, agency and purpose” (Stripple and Bulkeley 2015, 56), governmentality studies focus on the everyday aspects of governing and their messiness. We use Dean’s (2009) analytics of government as a heuristic to reconstruct from the reviewed papers the climate governmentality of the Paris era. According to Dean (2009, 33), each governmentality (i) creates certain visibilities, (ii) relies on and produces its own knowledge regime, (iii) operates through distinct technologies of government, and (iv) constitutes objects and offers subject positions. Acknowledging that each governmentality relies on “a heterogeneous and fragile set of practices and techniques” (Bulkeley 2015, 77), our review highlights moments of resistance (“counter-conduct,” Foucault 2007) and contingency in the act of governing. Based on the findings of our review, we identify the contours of the “cli-mentality” of the Paris era.

### 3 | Methodological Remarks

We performed a systematic literature review of poststructuralist analyses of climate governance with a special focus on governmentality studies. To identify the relevant literature, we conducted a keyword search in the journal databases Scopus and Web of Science. We combined two search groups, the first containing the object of governance (“climate” or “Paris agreement”), and the second group specifying the theoretical

perspective that is especially relevant for this review (“post-structuralist\*” or “Foucault\*” or “governmentality”). We looked for English-language contributions from 2015 to March 2024. Out of 263 results in Scopus and 284 results in Web of Science, we systematically excluded those that (1) are off-topic, (2) do not come from a social science discipline, or (3) do not use a post-structuralist framework. To narrow the scope of our review, we (4) did not include contributions that do not discuss climate governance as the primary object of interest, for example, articles that focus on agriculture, water management, or city planning. In a final sampling step (5), we examined whether each paper contributes to at least one category proposed by Dean (2009), that is, visibilities, ways of knowing, technologies of governing, or identities and subjectivities. Drawing upon the reference lists of relevant contributions and hints from colleagues in the field, we complemented our sample with additional papers from a similar theoretical perspective. Our final sample consists of 121 contributions (Table 1, Table 2), which focus on different aspects of international climate politics and different scales of government.

In Section 4, we additionally draw upon some highly-cited older Foucault-inspired contributions to illustrate the state of research before 2015 and to highlight continuities and changes over time.

**TABLE 1** | Results from database inquiry.

Sampling steps	# Results
Search in web of science	284
Keyword groups:	
1. Climate, Paris Agreement	
2. Poststructuralism, Foucault, Governmentality	
Search in scopus	263
Keyword groups:	
1. Climate, Paris Agreement	
2. Poststructuralism, Foucault, Governmentality	
Searches combined without duplications	371
Application of selection criteria left a relevant sample of	99
Snowballing added to this	22
Final no. of reviewed papers (database sample and snowballing results combined)	121

Note: Date of last database inquiry: 21.03.2024 Web of Science results “from ALL Databases”; timespan covered: 2015–2024 (date of last inquiry: 21.03.2024); language: English, keywords were searched based on TS = topic search (example: TS = (Climate OR Paris Agreement) AND (Foucault OR Poststructuralism OR Governmentality)) including use of asterisks where necessary. Scopus results included all disciplines; timespan covered: 2015–2024; language: English, keywords were searched as in this example: TITLE-ABS-KEY (Climate OR Paris Agreement) AND (Foucault OR Poststructuralism OR Governmentality) including use of asterisks where necessary.

**TABLE 2** | Results classified by topic.

Mitigation	Adaptation	Finance and technology transfer	Loss and damage	Other/several
65	36	8	3	9

Importantly, the year 2015 was chosen as a pragmatic cut-off date to limit the scope of this comprehensive review. The Paris Agreement is a wider project, and some crucial pillars of today’s cli-mentality precede the year 2015. Many contributions in our sample draw upon local case studies instead of addressing the big picture of global climate politics. The specific accomplishment of this paper is to synthesize these various contributions and to offer a coherent reading of the cli-mentality of the Paris era without dismissing its various local articulations and forms of counter-conduct as represented in the literature.

#### 4 | Reconstructing the Cli-Mentality of the Paris Era

How much continuity and change is there between the modes of problematisation and the modes of governing that have arisen in the context of (and not limited to the text of) the Kyoto Protocol and the Paris Agreement according to Foucauldian scholarship? To answer this question, we first summarize what the Foucauldian literature has written about the Kyoto era before we turn to the results of our systematic literature review from 2015 onwards.

The Kyoto Protocol has been characterized as a neoliberal departure from the biopolitical foundation of the UN Framework Convention on Climate Change (UNFCCC) (Bäckstrand and Lövbrand 2006; Oels 2005). While Bäckstrand and Lövbrand (2006) emphasized the continuity of biopolitical elements of measuring and reporting in bureaucratic ways (“a techno-scientific notion of planetary carbon control”, 62), Bäckstrand, Lövbrand and Oels diagnosed a paradigm shift toward a neoliberal governmentality. The flexible mechanisms (Joint Implementation, Clean Development Mechanism and Carbon Markets) of the Kyoto Protocol were characterized as market-based solutions which responsabilise actors to reduce emissions in the most “cost-effective” way in line with a neoliberal governmentality (Oels 2005). Paterson and Stripple (2010) showed that the responsabilisation of individual actors to reduce emissions requires subjectification, illustrating this point with cases like carbon offsetting and carbon dieting. Moreover, Paterson and Stripple (2014) also mapped the governmental process by which units of carbon became measurable and tradeable in global carbon markets. Stephan described how “not cutting down trees” became a tradeable commodity under a neoliberal governmentality (Stephan, 2012; 2013). Death (2011) investigated how failed climate summits like Copenhagen 2009 constituted important milestones of “summit theatre,” where governments signaled to the public that they could be relied on to solve the problem. Interestingly, all authors of that early phase overlooked the important role played by sovereign power under the Kyoto Protocol, namely costly sanctions for those who fail to meet their targets.

There is also early work on the governmentality of climate adaptation at the global level. The UNFCCC (in line with biopower)

held the international community responsible for reducing the risk of climate impacts to a “tolerable” level (Oels 2013). The securitization of climate change from 2007 onwards went along with a transition towards a neoliberal governmentality, which governs climate change through contingency (Oels 2013). Neoliberal risk management “[r]esponsibilises the governed to minimise the potential risk” (Oels 2013, 19), especially by preparing for the “inevitable” impacts of unmitigated climate change (p. 17).

We now turn to the findings of our systematic literature review. Although mitigation is still the most prevalent topic of recent cli-mentality studies since 2015, the realms of adaptation, finance, and loss and damage have been gaining salience within the literature (see Table 2). As a general tendency, Foucauldian scholarship finds that climate change “is increasingly becoming the frame of reference for the mediation and hierarchization of other global issues” (Aykut and Maertens 2021, 502, see also: Methmann 2010). This means that challenges in other policy sectors are increasingly articulated and problematized through the lens of climate change. At the same time, climate change can be problematized in various ways and in relation to various objects, for example, the economy or, most importantly, the security field (Von Lucke 2020; Oels 2015; Pasula 2024). Foucauldian analyses examine how different modes of problematizing and articulating climate change define the solution space for climate politics, thereby rationalizing certain ways of governing while foreclosing others. In the following, these problematisations and their implications are illustrated in detail for the fields of climate mitigation, adaptation, finance, and loss and damage.

#### 4.1 | Climate Mitigation in the Paris Era

The competing discourses in the run-up to the Paris Agreement have been analyzed by Bäckstrand and Lövbrand (2019). First, they observed a continuity of biopower (“collective problem-solving through professionalized resource management, environmental target-setting and monitoring” (Bäckstrand and Lövbrand 2019, 523)). However, they also found a deepening of a neoliberal governmentality that has its origins in the flexible mechanisms of the Kyoto Protocol (Bäckstrand and Lövbrand 2019), now with a focus on technologies of agency, fostering partnerships between business, state, and civil society actors. In contrast to this, protest movements were said to problematize the “inequitable power structures (capitalism, patriarchy, sovereignty) that define contemporary climate governance arrangements” (p. 526). For those social movements, the “climate crisis is inseparable from larger north–south issues of poverty, trade, justice and debt” (p. 526). As we will show, these counter-discourses remain marginalized to this day.

The Paris Agreement specifies the goal of avoiding dangerous anthropogenic interference with the climate system by limiting the global average temperature increase to “well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels” (Art. 2). This goal is in line with biopower as it seeks to reduce the risk to a tolerable level while securing food production and economic growth. It suggests a fine line between a “manageable” and a “dangerous” climate. However, in other regions of the world,

such as the Caribbean island states, dangerous levels of climate change have already been reached (Sealey-Huggins 2017). The mitigation section of this review addresses (1) the use of nationally-determined contributions to govern the self-conduct of states, (2) the responsabilisation of nonstate actors, cities, and individuals, and (3) the re-shaping of the solutions space through negative emissions.

##### 4.1.1 | Governing Through Voluntary Contributions

Under the Paris Agreement, states are required to submit emission reduction targets (industrialized countries) and/or measures (developing countries) in the form of nationally-determined contributions (NDCs). Every 5 years, the Conference of the Parties (COP) organizes a global stocktake to assess if the sum of all NDCs is in line with the goal of the Paris Agreement.

Aykut, Morena, and Foyer (2021) characterize the combination of a pledge-and-review process with a performative narrative on low-carbon futures as “incantatory governance.” The Paris Agreement introduces a managerial culture to climate governance and aligns state and nonstate actor expectations through signals, narratives, and rituals like the annual COPs (Aykut, Morena, and Foyer 2021). In this logic, states are addressed by *technologies of agency* as active agents capable of managing adequate climate actions. They are held accountable by a technology of performance, the global stocktake. NDCs are artifacts of discursive struggles for climate justice and for what is considered adequate climate policy (Jernnäs and Linnér 2019; Mills-Novoa and Liverman 2019; Jernnäs 2024b). Some states understand NDCs in a techno-managerial rationality as a “Progress Tracker,” “Trust-Builder” or “Influencer” (Jernnäs 2024a). Moreover, NDCs are used to articulate differentiated responsibilities and to uphold national sovereignty in global governance (Jernnäs 2024a).

Foucauldian analyses examine the use of metrics and indicators as governmental techniques of commensuration, of “making things the same” (Bulkeley 2015, 104). The cli-mentality has an expansionary nature through acts of translation and accounting (Bulkeley 2015, 102–120). Greenhouse gas emissions are rendered manage-able, trade-able and comparable through the measurement unit  $tCO_2e$ , as already shown in contributions that pre-date our sample (Lövbrand and Stripple 2011; Paterson and Stripple 2014). Carbon markets as neoliberal technologies of performance have been an essential component of the Kyoto Protocol. Under the Paris Agreement, emission reductions that count for NDCs can be traded bi- or multilaterally (Art 6.2.), or on a global carbon market, overseen by a UN supervisory body (Art. 6.4.). Markets prioritize notions of efficiency over ideas of climate justice, thereby limiting the solutions space for climate action (Oels 2005). After the financial crisis and the failed Copenhagen Conference in 2009, the concept of carbon markets is gaining momentum again (Blum and Lövbrand 2019). In the face of ongoing criticism of carbon markets, stakeholders are mobilizing legitimization storylines such as market control through “good governance” to maintain economic rationalities in governing climate change (Blum 2020). While the origins and structural drivers of climate change mostly remain obscured, abstract quantifications of  $CO_2$  and other greenhouse emissions

such as methane (McGregor et al. 2021) are highly visible in international negotiations.

#### 4.1.2 | Responsibilising Nonstate Actors

In 2014, the UNFCCC launched the NAZCA (the Non-State Actor Zone for Climate Action), now re-named as Global Climate Action Portal, which renders the climate action of non- and substate actors visible. The Paris Agreement actively “mobilizes nonstate actors as active and responsible partners in the quest for rapid and deep decarbonization”, guiding their behavior through governmental technologies of “*quantification, exemplification and partnering*” (Jernnäs and Lövbrand 2022, 40, emphasis in original). In doing this, the UNFCCC provides “a global space free from friction and opposition” (Jernnäs and Lövbrand 2022, 40), concealing underlying conflicts in the transition to a low-carbon society. Networks and partnerships are considered crucial for non- and substate actors to align their goals and views with those held by the UNFCCC, drawing on neoliberal technologies of agency and performance (Miller and Rose 1990, 10). Thereby, a system of self-regulating actors is implemented, blurring the distinction between state actors and non-governmental actors (Jernnäs and Lövbrand 2022, 52).

The rendering of carbon emissions as private property (Lipschutz 2015) and the provision of market-relevant information such as carbon statistics (Lovell 2015) are essential for steering the self-conduct of actors outside the official UNFCCC negotiations, thus producing a “corporate carbon economy” (Higgins, Dibden, and Cocklin 2015). By introducing the carbon footprint of a product as a relevant criterion, global retailers employ technologies of translation, observation, and normalization, thereby “creating, fostering, and articulating new regimes of responsabilization” (Ormond 2015, 425). Businesses use carbon footprints and sustainability metrics to tap green consumer markets, enacting norms and employing intricate carbon calculations across global supply chains (Ormond and Goodman 2015). To conclude, the enrolment of nonstate actors makes them “responsible” partners in achieving the Paris goal, whereby this system relies on incentives and expectations in the absence of sovereign power, for example, sanctions.

#### 4.1.3 | Responsibilising Cities and Citizens

Climate change is increasingly problematized as an “issue to be addressed in cities” (Castán Broto 2017, 11), which are expected to exchange their knowledge through networks and improve their performance through benchmarks and standards. While some authors highlight the potential of urban experiments for generating alternative climate imaginaries, empowering participation, and enabling paradigm shifts (Edwards and Bulkeley 2018; Bulkeley 2023), others are more cautious. Levenda (2019, 569) states that “experimentation” makes room for a kind of “urban entrepreneurialism,” thereby deepening neoliberal governance regimes in which cities compete. The use of best-practice examples is understood as a neoliberal technology of performance that structures the field of possible actions for cities (Nagorny-Koring 2019). Cities voluntarily govern themselves through third-party green rating systems and

present themselves as “smart,” “resilient,” or “green” to attract investment for a “green” transition (Cidell 2015). Some criticize that the use of the governmentality concept for urban climate action has hitherto been insensitive to the context of smaller cities and the everyday practices of “muddling through” and “messy governmentalities” (Castán Broto 2020).

The imagined, data-driven, and “smart” consumer is at the core of a new “urban governmentality” (Levenda 2018, 57). Techniques of re-interpretation and translation such as carbon budgeting are used to render cities responsible for taking climate action in the present (Grandin 2023). In their analysis of climate policies in the German cities of Dresden and Münster, Mattissek and Sturm (2017) illustrate how “technologies of domination” (laws and regulations), “incentive techniques” (such as urban funding programmes) and “technologies of the self” (such as the internationalization of city priorities) (p. 124) are three complementary modes of control for governing the climate at the city level. Concepts such as the smart grid produce new subjectivities, for example, “the engaged customer, active participant, technology adopter” (Levenda 2019, 573). This gives rise to an advanced liberal governmentality of energy transition based on incentive schemes (Szulecki 2018). Smart energy systems steer the self-conduct of individuals through surveillance and disciplinary power (Radtke 2022). By addressing actors as prosumers of energy, they are rendered active participants in climate governance (Szulecki 2018). However, as Anfinson (2022) argues, this ultimately moves citizens “further away from active control of government and toward the mediation of environmental politics by market mechanisms” (p. 11).

In line with this, various contributions find that technocratic approaches toward a smart city have produced passive rather than empowered consumers (Berthou and Ebbesen 2016; Levenda 2018; Soneryd and Ugglå 2015). Berquier and Gibassier (2019) show that citizens do not always identify with the subject position as a “good citizen” who constantly reflects on possible energy savings and investments in renewable energy. There is evidence that consumers resist being responsabilised (Döbbe and Cederberg 2023) or call for more structural government interventions to enable climate-friendly behavior (Moberg et al. 2019). Environmental NGOs subscribe to or resist these neoliberal technologies of responsabilisation to varying degrees (Ugglå and Soneryd 2017). The assignment of “false agency” risks trying to solve the climate crisis without systemic change (Hult and Larsson 2016, 441; Dilley 2015). This mode of governing has been criticized as a “spectacular reassurance strategy” to “mitigate environmental concern and action while simultaneously maintaining or accelerating the social-structural causes of environmental harm” (Gunderson 2020).

#### 4.1.4 | Negative Emissions: Reshaping the Solutions Space

The Kyoto Protocol has reframed mitigation towards the idea of “net emissions” (Bäckstrand and Lövbrand 2006). This rationalizes the use of Negative-Emissions Technologies (NETs) such as bioenergy with carbon capture and storage (BECCS) or direct air carbon capture and storage (DACCS). Authoritative knowledge brokers such as the IPCC (since its 5th assessment report in

2014) gave rise to zero-emission scenarios with the large-scale deployment of NETs, thereby restructuring the field of possible and legitimate policy options (additional papers from the STS field: Beck and Mahony 2018; Beck and Oomen 2021; Gupta and Möller 2019). In recent years, the idea to temporarily overshoot 1.5°C return to it at a later point through Negative Emissions Technologies has become more popular (beyond our sample: Malm and Carton 2024), thereby reconfiguring the biopolitical mitigation target.

Poststructuralist analyses reveal how dominant discourses shape the objects, rationales, and authoritative actors in NET governance (Boettcher 2020a, 2020b). As Boettcher and Kim (2022) argue, it is the interplay of institutions and discourse that defines the solution space for future governance arrangements on NETs. NETs have been investigated as “sociotechnical strategies” (Low and Boettcher 2020) for mitigation that render system change less urgent and shift the terms of the debate. These strategies reproduce market rationalities from the Kyoto era while rationalizing and legitimizing the delay of decarbonisation efforts (Low and Boettcher 2020). NETs can thus serve as a “fixing” strategy for carbon economies to maintain the status quo (Low and Boettcher 2020, 3). As Boettcher (2020) shows for the United Kingdom, the regulation and application of NETs are contested, with political, economic, and ethical rationales underpinning ongoing discussions. As the dominant knowledge forms of Earth System Sciences on climate solutions are considered mechanistic and overly optimistic (Hamilton 2018), Boettcher (2022) suggests religious knowledge as the basis for an alternative “*governmentality of Socio-Ecological Care*” (p. 90, emphasis in original).

In addition to NETs, so-called nature-based solutions have been emerging as authoritative mitigation solutions, giving rise to a “climate-biodiversity-frontier” (Fransen and Bulkeley 2023). Through smart earth technologies such as remote sensing, Artificial Intelligence, and techniques of Measuring, Reporting and Verification (MRV), nature is rendered amenable to rationalization and optimization, with alternative representations of the environment being dismissed (Fransen and Bulkeley 2023; Machen and Nost 2021; Tironi and Rivera Lisboa 2023).

While digital technology facilitates the neoliberal governing of nature “at a distance,” the REDD+ mechanism governs “in proximity” (Fransen and Bulkeley 2023). REDD+ (Reducing emissions from deforestation and forest degradation in developing countries) engages local communities in forest protection through financial incentives. Foucauldian studies read this as a technology of agency which renders local people responsible for forest conservation in the absence of force, which aligns with a neoliberal governmentality (Adelman 2015, 2017; Astuti and McGregor 2015; Boer 2019; Dixon and Challies 2015; Gebara and Agrawal 2017; Jodoin 2019; Müller 2020; Nielsen 2016; Setyowati 2020). Müller (2017) characterizes REDD+ as a case of “Anthropocene geopolitics,” which opens up the (postcolonial) “local” as a site of policy intervention. Communities are incentivized to perceive forests as sinks for emissions rather than as a living environment or a source of timber. This is achieved by what Boer (2017) calls “welfare environmentality”: local authorities offer specific rights and socio-economic security in return for compliant behavior. Authorities mobilize local forest users

instead of holding corporate and global drivers of deforestation accountable (Hjort 2020). A higher “performance” of these subjects is fostered through both disciplinary power and neoliberal instruments, including “education,” “self-reflection” and “rewards for carbon sequestration” (Hjort 2020). Boer (2018) emphasizes the often-underestimated role of the administrative state apparatus for steering self-conduct and establishing carbon markets.

REDD+ requires a reconfiguration of the relationship of local communities with their forests, giving rise to a geopolitics of climate change knowledge (Ulloa 2017). Dominant technical and development discourses are challenged by social justice claims on local scales (Collins 2022). Experiences of colonialism in REDD+ countries reinforce local resistance against managerial forest governing attempts (Collins 2019). Collins (2020) highlights the perseverance of sovereign power and the use of disciplinary power to overcome local resistance and criticizes that Foucauldian studies tend to overlook these modes of power.

To conclude, climate mitigation is reduced to a technocratic problem of excessive carbon emissions. The cli-mentality of the Paris era deploys NDCs as technologies of agency in combination with a technology of performance, the global stocktake, to discipline states to make a voluntary contribution towards a shared goal. The responsabilisation of nonstate actors, cities, individuals, and communities is underpinned by economic rationalities, the revival of carbon markets, and the increasing normalization of negative emission technologies as a legitimate instrument to bridge the global stocktake’s emissions gap. Within this system of organized irresponsibility, climate concerns increasingly permeate all realms of society while the structural drivers of climate change remain unaddressed.

## 4.2 | Climate Adaptation in the Paris Era

At the global level, the establishment of the Adaptation Fund in 2001, the adoption of the Cancun Adaptation framework in 2010, and the Paris Agreement’s Global Goal on Adaptation (Article 7) were important milestones for adaptation. The Foucauldian literature on adaptation is growing fast, with many contributions focusing on more specific aspects such as wildfires (Asiyanbi and Davidsen, 2023) or disaster risk reduction (Trumble 2018; Ghosh and Boyd, 2019). Our review focuses on (1) the constitution of ‘resilient’ citizens, (2) the depoliticisation of climate futures, and (3) the normalization of migration as a rational adaptation strategy.

### 4.2.1 | Constituting Vulnerable and Resilient Subjects

Knowledge production in the field of adaptation focuses on defining vulnerability to climate change impacts. Climate adaptation projects rely on the mobilization of knowledge claims and specific imaginaries to justify state interventions (Mills-Novoa et al. 2020). The biopolitical identification of vulnerable populations through climate modeling and risk assessments has been conceptualized as the “technopolitics of climate change” (Miguel 2017). Computer models and risk maps enable a specific way of seeing and interpreting climate change to constitute

populations at risk as objects of political intervention. The scientific and supposedly neutral language of risk assessment privileges external experts from the global North in the formulation of solutions, obscuring the local context of adaptation projects and marginalizing the knowledge of local populations (Nyamwanza and Bhatasara 2015; Bhatasara 2017).

Vulnerability is discursively linked to weakness, particularly afflicting developing countries, and is used to justify paternalistic responses (Croweller and Tschakert 2020; Methmann and Oels 2015a). The technology of othering, it is argued, legitimizes external adaptation interventions and “helps to preserve existing relations of racial, patriarchal and class domination in the face of feared climate-induced social upheavals” (Andreucci and Zografos, 2022, 2). Vulnerability discourse also exhibits regional biases: Small Island Developing States (SIDS) and Least Developed Countries (LDCs) are imagined as “disproportionately vulnerable to losses and damages in the climate regime” (Jackson et al. 2023, 41; see also Weatherill 2022) while the vulnerability of “landlocked nations throughout Africa and Eurasia” and the “vulnerability in affluent states, too, is obscured” (Jackson et al. 2023, 41). Recent climate-induced disasters in affluent states have begun to challenge this bias.

Addressing vulnerability requires climate-resilient development, as the relevant chapter of the IPCC’s Sixth Assessment Report (Schipper et al. 2022) argues. The Foucauldian literature argues that resilience calls upon the individual to transform himself or herself in a way that he or she is prepared for all kinds of dangers induced by climate change (Methmann and Oels 2015a, 2015b), utilizing “an economy of fear, hope and confidence” (Croweller and Tschakert 2020, 6). Activating populations as politically relevant agents capable of self-government can be conceptualized as a neoliberal technology of citizenship (Cruikshank 1999). While earlier governmentality analyses have interpreted the rise of the resilience concept as a withdrawal of the state, newer studies emphasize how governments are actively rolling out resilience programs. Using the case of Australia, Jackson (2024) shows how the resilience discourse and the respective interventions fail to address structural drivers of vulnerability, obscure root causes, and deny the lived experiences of vulnerable communities.

The purely neoliberal understanding of resilience has been criticized as overly deterministic. Boas and Rothe (2016) argue that resilience is often used to rearticulate security logics through notions of complexity and uncertainty. Resilience discourses are articulated in different ways by a variety of actors (Ferguson 2019; Ferguson and Wollersheim 2023). It is argued that the governmentality literature should be cautious not to obscure the transformative potential of social and ecological notions of resilience (Ferguson 2019) or the potential for anti-racist contestation by social movements, which challenge technocratic adaptation practices (Grove, Cox, and Barnett 2020). Imaginaries of resilience are resisted and reworked by local communities who develop their own counter-imaginaries (Mills-Novoa et al. 2022). Such resistance has been conceptualized as a form of what Foucault (2007) calls “counter-conduct” (Mills-Novoa et al. 2020, 2022; Jackson et al. 2023). As alternative future visions are rendered visible, resistance to adaptation projects appears not primarily as obstructive but as productive of new subjectivities and outcomes (Mills-Novoa and Mikulewicz, 2025).

#### 4.2.2 | Depoliticised Technocratic Climate Futures

Cli-mentality studies illuminate how specific visibilities, subjectivities, and ways of knowing and governing present the struggle for resilient livelihoods in a technocratic manner that keeps climate adaptation below the threshold of politicized debates. Remling (2018) reveals how the European Commission’s approach towards adaptation obscures climate change responsibilities and unequal vulnerabilities. Adaptation is framed as an environmental rather than a social or political problem, fostering managerial and technocratic methods and hindering democratic deliberation on desired (climate) futures. Similarly, De Roeck (2019) shows how the European Union’s Global Climate Alliance follows a technocratic and quantifiable conception of adaptation. The EU requires its partner countries in the global South to assess their own vulnerability through a technocratic formula and to “translate [their] local adaptation realities into quantified and mutually comparable knowledge products” (De Roeck 2019, 165), thereby imposing a managerial risk approach in line with biopolitics on partners in the global South. Steig (2024) examines how urban adaptation against sea-level rise is based on a depoliticised expert knowledge that produces “imaginaries of modernity and control” (p. 1), often reinforcing inequalities and undermining locally-led adaptation.

By scrutinizing the dominant governmentality in Swedish forestry, Andersson and Keskitalo (2018) show how the framing of adaptation as an environmental issue ignores the underlying social structures that steer and limit adaptation. A normalizing business-as-usual approach towards storm risks as promoted by the forest industry is resisted by forest owners who frame more frequent storms as an adaptation issue (Andersson, Keskitalo, and Bergstén 2018). Technocratic approaches to adaptation can lead to exclusion, for example, from resettlement schemes, and therefore reproduce social injustices (Fraser 2017). Examining the case of Germany, Remling (2023) explores how fantasy is used to sustain and legitimize these techno-managerial adaptation practices. She traces (1) fantasies of control and preparedness, (2) fantasies of objectivity and reason, (3) fantasies of a shared sense of place, and (4) fantasies about “the good life,” guiding adaptation decisions that uphold the prevailing social order. This is rationalized and legitimized by a problematisation of climate impacts that renders socioeconomic structures invisible and focuses on ‘managing’ climate change impacts (Cashmore and Rozema, 2015; Beuret 2021). As an alternative to these technocratic understandings, Eriksen et al. (2015, 531) argue that adaptation should be understood as a “socio-political process, taking place through struggles over authority, knowledges and subjectivities across scales by multiple actors”. A re-politicization of dominant problematisations (Olsson 2022) and deeper engagement with the socio-political contexts of vulnerable livelihoods is called for (Owusu-Daaku and Rosko 2019).

#### 4.2.3 | Migration as Adaptation

Migration is discussed in political and academic discourse as a strategy to enhance resilience to climate change. As governmentality studies show, early discourses conceptualized millions of climate refugees as a threat to national security, leading to a so-called climatisation of the security field (Oels 2012; Von

Lucke 2020). As Cons (2018) argues, this imaginary also contributes to a securitisation of the development industry. Development projects on climate adaptation “serve more as representational technologies for an anxious Western world” (Cons 2018, 268 f.) and mitigate concerns by seeming to enact climate security. In the early 2000s, there were calls to “save climate refugees” by offering them some kind of protection status in the rationality of biopower, according to which interventions target “at risk” groups (Methmann and Oels 2015a). This discourse culminated in the Nansen Initiative in 2015. Since 2011, climate-induced migration has been reframed by the influential Foresight Report as a rational strategy of adaptation and as a strategy to enhance the affected household’s resilience (through circular migration and remittances). Consequently, those threatened by climate-related impacts have been called upon to become resilient and mobile neoliberal subjects (Methmann and Oels 2015a).

The rendering of labor migration as a desirable adaptation response is contested by alternative discourses which however remain marginalized (Remling 2020). Farbotko et al. (2023, 750) draw attention to the fact that dominant adaptation discourses often imply “that certain areas will inevitably become uninhabitable owing to sea-level rise,” especially small island states. As an alternative, the authors advocate paying attention to local discourses of affected regions and their imaginaries of climate futures (Farbotko et al. 2023). Other contributions highlight a racist dimension (Baldwin 2017) and gendered responsibilities (Rothe 2017) in the discourse on resilience and migration. It is criticized that climate change is foregrounded as the cause of displacement, thereby obscuring other power dynamics, diverse capabilities, and individual choices in migration decisions (Ayeb-Karlsson 2020).

### 4.3 | Climate Finance in the Paris Era

The Paris Agreement reaffirms the promise of industrialized countries to provide \$100 billion per year from 2020 to 2025 for climate mitigation investments in the global South. Aligned with the Common But Differentiated Responsibility and Respective Capabilities (CBDR+RC) principle, this financial assistance is expected to aid developing countries in fulfilling their contributions. A decision at COP29 in Baku commits the global North to triple this sum and to mobilize at least \$300 billion per year from a wide range of sources (including loans at market rates) for the global South by 2035.

Foucauldian contributions highlight that climate finance markets are not pre-existing but actively constructed through “organizing actions” by governments (Asiyanbi 2018). Finance and markets are “durable governmental apparatuses” built on processes of problematization, vision, implementation, and stabilization (Asiyanbi 2018, 531). McCarthy and Thatcher (2019, 250) show how climate finance and related institutions are “rendering land investible”. They demonstrate how the World Bank uses mapping of renewable energy generation potential as a practice to mobilize finance flows, inscribing new visions of development, nature, and accumulation upon the land. As a result, these potentially displace marginalized people and their practices of land use.

Other contributions explore the governmentality behind corporate responses to environmental and social challenges through environmental, social, and governance (ESG) investments. As Luke (2022) argues, ESG criteria function as dispositives guiding the behavior of the self and others by rationalizing economic growth in times of climate change. They establish a knowledge regime in which corporate climate responses serve as a legitimate risk management tool in response to climate risks (Morgan 2023). As Rana, Lowe, and Azam (2023) show for the case of Bangladesh, banks and financial institutions incorporate climate concerns into risk assessment logics, positioning themselves as self-responsible actors in the climate discourse.

Different problematisations leading up to the implementation of the Green Climate Fund (GCF) are analyzed. Discourses of “ecological modernisation” and “green governmentality” were privileging economic rationalities over principles that are more in line with climate justice (Bruun 2018). Looking at the design process of the GCF, Bracking (2015) argues that the current governance of climate finance is a deepening of an advanced liberal government. As “(t)he game itself is financialized” (Bracking 2015, 296), climate finance serves capital interests, which is why “the poor and vulnerable can expect little from it”. Climate finance is conceptualized as an example of “anti-politics” that uses bureaucratic complexity to obscure underlying power struggles (Bracking 2015). Contributions from critical political economy have illustrated how green financialisation affects daily life in the global South, and how statehood is reconfigured by strategies of de-risking (beyond our sample: Elsner et al. 2022, Gabor 2021, Glatzer, Neumann, and Müller 2023). In the field of technology transfer, a dominant discourse of neoliberal “de-regulatory ecological modernization” (Oh 2020, 661) legitimizes market-based solutions. It marginalizes the developing countries’ discourse of “green governmentality with right-to-development” (Oh 2020, 661) and leaves intellectual property rights in place.

### 4.4 | Loss and Damage

Poststructuralist work has explored how Loss and Damage from climate change impacts (L&D) became established as a discursively detached third pillar of international climate politics after a long phase of contestation. So-called developing countries, notably the Alliance of Small Island States, have sought compensation for losses and damages from climate change impacts (L&D) since 1991, but met resistance from developed countries (Calliari, Serdeczny, and Vanhala 2020,1; Sealey-Huggins 2017). For a long time, developed countries insisted that L&D was part of adaptation and not beyond adaptation as developing countries claimed. The EU argued in 2012 that much of the field of L&D “surpasses the remit of the UNFCCC” as it is supposedly not climate-related and should instead be tackled by “the humanitarian and disaster risk community” (Calliari, 2018, 734). Developing countries reject such claims as attempts “to shift the cause of L&D to domestic factors” (Calliari, 2018, 734). In 2013, the establishment of the Warsaw International Mechanism on Loss and Damage (WIM) put an end to this dispute, and most Parties (though not all) have accepted L&D as the new and third pillar of international climate politics.

In the field of knowledge production for L&D, Jackson et al. (2023) show that developing countries insist on climate change as a causal agent of L&D. Such argumentation has been supported by advances in probabilistic Extreme Event Attribution (EEA). As Calliari (2018, 739) shows, such claims are countered by industrialized countries who insist on “the impossibility of distinguishing the contribution of climate change to L&D from other factors, such as natural climate variability and existing patterns of vulnerability and exposure”. The developed countries emphasize that climate change is not the cause of L&D but only a “risk amplifier” (Jackson et al. 2023, 41).

Jackson et al. (2023) suggest that L&D is being rendered governable under the Paris Agreement by a neoliberal governmentality. In 2015, the Paris Agreement dedicated Article 8 to a definition of L&D. However, at the same time, the Paris COP decision excluded liability and compensation from the UNFCCC’s mandate (paragraph 51 of decision 1/CP.21, UNFCCC 2015). As a result of growing developing country pressure, COP27 in Sharm el-Sheik (UNFCCC 2022) took the decision to set up a financing arrangement, including a fund for loss and damage, the details of which were decided at COP28 in Dubai (UNFCCC 2023). Finance for L&D operates based on neoliberal government, namely on voluntary contributions from donors. Developing country discourses of climate justice, polluter pays principle, state responsibility and historic greenhouse gas emissions have been silenced (Jackson et al. 2023). Despite having been banned from the terms of the debate, the “ghost of compensation” (Calliari, Serdeczny, and Vanhala 2020, 5) is still very much part of negotiators’ imaginary. This is even more so as climate litigation has emerged as a renewed attempt to launch claims for compensation.

Outside the UNFCCC, the G7 and the Vulnerable Twenty (V20) group have decided in 2022 to establish a Global Shield against Climate Risks, bundling insurance mechanisms and offering emergency assistance for climate-related damages. The Global Shield employs neoliberal incentives, as it requires risk assessments and insurance payments in return for services. In sum, “[p]rivate and voluntary finance has been made visible, while international solidarity finance has been obscured” (Jackson et al. 2023, 42).

## 5 | Discussion

### 5.1 | How Climate Change Is Governed in the Paris Era

So how is climate change problematized and rendered governable in the context of the 2015 Paris Agreement and what are the policy implications? First, the reviewed papers allow us to identify a particular governmentality in the field of international climate politics, a cli-mentality, namely a neoliberal governmentality with a biopolitical foundation. While the target-setting has been conducted in a biopolitical manner ever since the UN Framework Convention on Climate Change, goal achievement is increasingly implemented by neo-liberal technologies of agency and technologies of performance. The mechanism of the global stock-take as a

technology of performance holds the international community accountable as a collective but cannot impose sanctions on any particular country. Despite all the measuring, reporting and verification, the papers under review demonstrate that the cli-mentality of the Paris era is productive of a system of “organized irresponsibility” for reaching climate targets (see also Haderer 2023 for experimental climate governance). Amid rising global emissions, discourses on carbon sinks and negative emissions technologies have changed the problematisation of climate change and extended the solution space in a techno-managerial manner.

Second, in contrast to the new institutionalist literature, the reviewed papers signal a clear continuity between the governmentality of the Kyoto era and the Paris era. There is an observable expansion and deepening of neoliberal modes of government from Kyoto to Paris. Within neoliberal governmentality, technologies of agency which responsabilise actors have gained importance while market-based instruments continue to play a role.

Third, many of the reviewed papers argue that the dominant cli-mentality narrows down the solution space in a way that renders root causes invisible. The focus on self-governance obscures structural drivers of climate change and global inequalities, thereby leaving current global power relations unquestioned. The dominant cli-mentality produces climate change as a problem of excessive greenhouse gas emissions, while the language of fossil fuels in particular and energy politics in general has been avoided (Aykut 2016, 325), at least up until COP28 in Dubai. As a result, capitalist, fossil-fuel-based modes of production and consumption in the global economy as well as trade rules are moved beyond the scope of the negotiations. In the field of adaptation, the social and political drivers of vulnerability are obscured, while subjects are responsabilised for becoming resilient to disasters.

Fourth, the current cli-mentality normalizes as inevitable what could still be changed. For example, decisions about desirable climate futures are delegated to (Northern) experts and rendered as technical issues beyond democratic participation. Moreover, the increase in the frequency and intensity of climate-related disasters and the need to adapt to those become normalized as inevitable.

Finally, our review shows that the cli-mentality of the Paris era (see Table 3 for a summary) is not an inescapable regime, but contingent, contested, and in steady change. On a local scale, these global discourses and practices are “invoked and articulated and reproduced in highly varied and sometimes contradictory manners” (Death 2014, 82), evoking resistance. The cli-mentality of the Paris era is confronted with forms of counter-conduct, protest from social movements, and, consequently, a loss of discursive legitimacy. Counter-discourses point to the structural roots of vulnerability to climate change, which go back to colonialism, unfair trade regimes and patriarchy. Some badly affected countries take the legal route through the courts to sue for compensation based on human rights law. The potential of these voices to fundamentally challenge the cornerstones of the cli-mentality of the Paris era is subject to further studies.

**TABLE 3** | The cli-mentality of the Paris era.

	<b>Mitigation</b>	<b>Adaptation</b>	<b>Climate finance</b>	<b>Loss and damage</b>
Objective of Paris agreement	Limiting global warming to a tolerable level (+1.5°C–2°C)	Reducing the damage of climate change impacts to a tolerable level	Making finance available to developing countries for mitigation action	Assisting particularly vulnerable countries with their climate-related L&D
Fields of visibility	Visible: Emissions, nature as sink, technology Obscured: Economic growth, capitalism, structural inequalities, fossil fuels	Visible: Vulnerable sectors, regions, people; inevitability of uninhabitability; climate futures as “given” Obscured: Colonial and other structural causes of vulnerability	Visible: Private capital, green transformation as investment opportunity Obscured: Debt, (neo-) coloniality	Visible: Climate change as risk amplifier for (but not single cause of) L&D Obscured: Liability, reparations, compensation, human rights
Technologies of government	Biopower: Limiting warming to +1.5°C–2°C, Measuring, Reporting, Verification (MRV), smart technologies Neoliberal: Nationally determined contributions by states as signs of “adequate” policy, 5-year-global stocktake to raise ambition, Global Climate Action Platform enrolls non-state actors, Financial incentive schemes enroll local actors (REDD+), rankings enroll cities, Global carbon market	Biopower: Climate futures determined by experts in technocratic terms Identifying and targeting “at risk” populations in National Adaptation Plans of Action Planned relocations Neoliberal: Migration as adaptation, Development as strategy of becoming resilient	Biopower: ESG framework as norm for investments Target of \$100bn annually from 2020 to 2025 to the South Neoliberal: Rendering land investible through socio-spatial imagination and mapping; De-risking for private capital; Financialisation; Biannual communication of finance efforts	Biopower: L&D fund allocates grants to ‘particularly vulnerable’ countries Neoliberal: “Responsible” countries make voluntary pledges to L&D fund (no financial target, currently ~\$700 million); Global Shield (insurance)
Knowledge	Economics, Climate science, Modeling	Development, Climate science	Finance	Attribution sc., Economics
Identities	Responsible “Parties/non-state actors”	Vulnerable/resilient population	Private capital as green investor, state as enabler	Capable donors, affected populations
Counter-conduct/critique	Climate change as structural problem tied to capitalism and neo-colonialism. A governmentality of socio-ecological care needed.	Adaptation is a struggle about whose desired future is realized. Imaginaries of alternative local adaptation futures needed.	Local preferences and values should inform investment priorities. Debt-relief is needed.	Climate change not just a risk amplifier but cause of L&D. Climate litigation is needed to enforce human rights.

## 6 | Conclusion

Governmentality studies suggest that the impasse of the Paris Agreement to 'fix' the climate crisis is not a bug; it is a feature. A Foucauldian perspective helps to understand that the cli-mentality of the Paris era indeed goes to plan—according to its own logics, discourses, and ways of knowing. However, the dominant problematisation of climate change in the Paris era has been limiting the solution space for policy interventions and renders transformative approaches beyond the scope of the global climate regime. Based on this insight, we see an important role for cli-mentality studies to denaturalize and criticize dominant knowledge configurations and rationalities to re-open the solution space for climate governance and to integrate marginalized perspectives into academic and policy debates.

Early governmentality studies have focussed on the big picture of global climate politics, thereby leaning toward totalizing and generalizing statements. Recent years have seen a high level of differentiation, with case studies being illustrative of a wider range of governing rationalities. Cli-mentality studies have become more diverse, more nuanced, and rely on more empirical research. We welcome the increasing attention in the papers under review towards what Foucault calls counter-conduct (Foucault 2007). In contrast to the programmer's view adopted by earlier studies, it becomes increasingly visible how actors are engaging in practices that resist their prescribed subject positions of the dominant governmentality. Cli-mentality studies' transformative potential depends on its ability to include counter-conduct in the empirical analysis. It is in counter-conduct that the seeds for alternative governmentalities beyond the status-quo can be found.

While cli-mentality studies are good at characterizing how climate change is rendered governable, they often fall short of explaining the emergence, persistence, and change (Remling 2023, 718) of the cli-mentality of the Paris era. However, Death (2014, 84) emphasizes that "questions of agency and causality are not a limit of governmentality approaches". We suggest that this potential can best be realized by combining cli-mentality studies in a complementary way with other theories of International Relations (IR). Political economy, for example, could explain the emergence of the purely voluntary nature of the cli-mentality of the Paris era with reference to the rationalities of global capitalist relations ("carbon capital" (Urry 2013), "carbon lock-in" (Unruh 2000)) or with reference to a historical-materialist understanding of states as serving capital accumulation (e.g., Paterson and P-Laberge 2018; Brand 2022). Institutional accounts may illuminate major emitter interests, unequal power relations, and institutional design as explanatory variables for the inbuilt limitations of the cli-mentality of the Paris era (Allan et al. 2021). On the other hand, cli-mentality studies provide new insights for the current knowledge turn in institutionalism, pointing beyond a linear understanding of the science-policy relationship. We thus agree with Aykut (2016), who sees the need for better integration of these competing theoretical approaches to come to a more comprehensive understanding of the impasse of global climate politics.

Building on the identified blind spots and recent developments in governing the climate, we sketch out avenues for

future research from a Foucauldian perspective. First, we suggest increasing attention to social movements (Corry and Reiner 2021), calls for climate reparations (Grasso and Heede 2023), and climate litigation cases (Beauregard et al. 2021). It should be investigated to what extent these factors manifest as counter-conduct to the dominant neoliberal governmentality. Second, recent studies on climate finance and private investment (e.g., Bigger and Millington 2020; Hilbrandt and Grafe 2022; Long 2021) indicate that neoliberal subject positions and rationalities are "locked in" through monetary regulation. Therefore, we recommend combining critical political economy with governmentality studies to examine how the status quo of the Paris era is reproduced. Third, argumentative discourse analysis (Hajer 1995) could be combined with governmentality studies in order to reveal the discourse coalitions behind the rise and fall of dominant governmentalities. Finally, global variations and local rationalities of climate governmentality need to be explored (see Death 2014), particularly in the global South (e.g., Death 2016). Future research should highlight the violent nature (Sovacool 2021) and segregated impacts (Rice, Long, and Levenda 2022) of the cli-mentality of the Paris era.

### Author Contributions

**Florian Steig:** conceptualization (supporting), data curation (lead), investigation (lead), methodology (lead), visualization (supporting), writing – original draft (lead), writing – review and editing (supporting). **Angela Oels:** conceptualization (lead), investigation (supporting), methodology (supporting), visualization (lead), writing – original draft (supporting), writing – review and editing (lead).

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### Conflicts of Interest

The authors declare no conflicts of interest.

### Data Availability Statement

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

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