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Climate mobilities: migration, im/mobilities and mobility regimes in a changing climate

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ABSTRACT

The discussion on the relation between human mobility and climate change has moved beyond linear and exceptional terms. Building on these debates, this article, and the Special Issue on *Climate Mobilities: Migration, im/mobilities and mobilities regimes in a changing climate* that it introduces, conceptualises this relation in terms of climate mobilities. Through the concept of climate mobilities, we highlight the multiplicity of mobility in the context of a changing climate, including the interrelations between human mobilities and immobilities and their interplay with other mobile flows, such as the mobilities of ideas, information, or climate risk. We furthermore delve into the politics of climate mobilities, defining climate mobility regimes, and implications for mobility justice among those whose mobility is impacted by these regimes. We argue for research to pay more attention to acts of resistance against dominant climate mobility regimes, including voluntary immobilities and re-emplacements that challenge mass migration frames or imposed relocation policies. The articles in this issue empirically examine these dimensions, reflecting on the plurality of climate mobilities and its politics, each analysing how these evolve in a situated cultural or political context.

KEYWORDS

Climate change; im/mobilities; migration; mobility regimes

Introduction

The discourse of apocalyptic climate change-induced mass migration is now past its prime. Particularly since the early 2010s, it has been extensively critiqued (see Hartmann 2010; Bettini 2013; Piguët, Kaenzig, and Guélat 2018; Wiegel, Boas, and Warner 2019), and the majority of migration scholarship no longer expects a linear, massive and world-transforming movement of people under climate change. Indeed, an ever-rising number of studies shows the opposite is the case: that relations between climate change and human migration are often indirect, small-scale, and taking shape in context-specific ways, influenced by a host of other socio-economic and political factors. The ways in which people move in a changing climate are diverse, and typically

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consist of relatively local mobilities (for overviews see: Black et al. 2011a; Foresight 2011; McLeman and Gemenne 2018; Hoffmann et al. 2020; De Sherbinin 2020).

Building on these insights, this contribution and the special issue it introduces make the case for an analytical research perspective that examines the plurality and the politics of human movement in the context of climate change (Baldwin 2014). We capture this via the concept of *climate mobilities*, which pays attention to the multiplicity of climate change-related human mobility (involving immobility, relocation, circular mobility, etc), its embedding in ongoing patterns and histories of movement, and the material and political conditions under which it takes place (Baldwin, Fröhlich, and Rothe 2019; Boas et al. 2019; Parsons 2019; Suliman et al. 2019; Cundill et al. 2021). With this, we follow Schapendonk, Bolay, and Dahinden (2021)'s call to de-exceptionalise mobility and, instead, as Kothari and Arnall (2019) suggest, understand climate mobilities in relation to the existing mobility patterns of everyday life.

Central to this agenda, furthermore, is the recognition that the study of climate mobilities should not be considered a separate field of migration study, as it has been for a long time, but as inherently part of wider migration and mobilities scholarship. This allows the study of climate mobilities to engage with a wider set of questions on space, movement and their politics, needed to understand people's mobility, or lack thereof. In 2019, we commenced this research programme during a symposium held at Wageningen University, the Netherlands, in which we brought together some key scholars in this field, including Andrew Baldwin, Giovanni Bettini, Kees van der Geest, Patrick Sakdapolrak, and the authors involved in this issue. Building on our collective experiences of working in this field, some for up to fifteen or more years, we penned a commentary critiquing 'climate migration myths' and put forward the basic components of a climate mobilities research agenda (see Boas et al. 2019). This Special Issue deepens this research programme, by attending to the heterogeneous ways in which people, things and ideas move – or do not move – in the context of a changing climate.

This article is structured as follows: First, we explain the concept of *climate mobilities* in greater detail: its origin, theoretical basis and how it is reflected in the contributions of this Special Issue. Here we specifically delve into the diversity of mobilities taking place in the context of climate change, and how different climate im/mobilities are often co-dependent or intersecting through digital exchanges or the circulation of frames. The subsequent section focuses on *climate mobility regimes*, which we use to reflect on the politics of climate mobilities, and the unequal levels of autonomy people have over their im/mobilities. Here we also engage with acts of resistance that are being expressed through climate im/mobilities – for instance via forms of voluntary immobility resisting relocation pressures, as exemplified in several contributions to this Special Issue. These acts of resistance contest dominant climate mobility regimes in an effort to reclaim mobility justice in the context of one's own mobility. These discussions are followed by a concluding section laying out the key defining features of a climate mobilities research agenda.

Climate mobilities

A growing pool of studies over the recent decade has emphasised that migration under climate change takes many forms that are contextually dependent and are shaped by

existing relations of power and inequality (see e.g. Zetter and Morrissey 2014; Turhan, Zografos, and Kallis 2015; Adams 2016; Baldwin 2016; Klepp and Herbeck 2016; Parsons 2019; Suliman et al. 2019; Samaddar 2020). In doing so, they sought to move away from a conceptualisation of the relation between climate change and human mobility in exceptional terms that was – and to an extent still is – dominant in media, NGO advocacy and in some policy and academic circles. Ever since it entered academic and public discussions – with its clearest presence in the early 2000s –, this alarmist discourse produced warnings about the so-called ‘threat’ of climate change-induced mass migrations (for critiques and overviews of these debates see Hartmann 2010; Bettini 2013). These were later shown to be based on incorrect assumptions and oversimplified models estimating the numbers of future ‘climate refugees’ (for these critiques see Gemenne 2011; Selby and Daoust 2021; Durand-Delacre et al. 2021), though such warnings nevertheless became oft-repeated by a range of organisations (security, environmental, media) warning against climate change-induced migration flows (for details see Boas et al. 2019).

In the course of the 2010s, the discourse of ‘mass migration flows’ became increasingly critiqued in academia, particularly regarding the singular causal relationship whereby exposure to climate impacts is assumed to lead directly to migration, usually envisaged as crossing international borders (for such a critique and overviews of the debates see Bettini 2013; Black et al. 2011a; Piguet 2013). Most influential in this critique was the 2011 UK government-financed Foresight study on environmental change and human migration, led by Richard Black (Foresight 2011; Black et al. 2011a). This report instead highlighted how the socio-economic, political and environmental drivers of migration intersect and together shape decisions and options to move or stay. Moreover, this report highlighted that many people may actually be ‘trapped’ in situations of environmental risk (Black et al. 2011b), not able to move away – such as people living in crowded cities close to the coast when hit by a cyclone. Following that work, a growing number of studies has in recent years examined both the heterogeneous and political character of mobility and immobility in the context of climate change (see Wiegel, Boas, and Warner 2019; Hoffmann et al. 2020; De Sherbinin 2020; Lama, Hamza, and Wester 2021 for overviews), examining for instance dimensions of race (e.g. Baldwin 2016), postcolonialism (e.g. Suliman et al. 2019; Samaddar 2020), or gender (e.g. Evertsen and van der Geest 2020; Lama, Hamza, and Wester 2021) in shaping im/mobility responses and perceptions thereof.

Building on academic accounts calling for more engagement both with the highly contextual, situated experiences of climate change and migration, as well as with how these are embedded in pre-existing power structures, this Special Issue puts forward an emerging concept and associated research agenda on ‘climate mobilities’ (Baldwin, Fröhlich, and Rothe 2019; Boas et al. 2019; Parsons 2019; Wiegel, Boas, and Warner 2019). Our argument starts from the growing body of empirical evidence showing how movements in the context of climate change involve a wide range of mobilities and immobilities. This may include short-term displacement to shelters, long-distance migration, but also rural-urban mobility or circular mobility (e.g. De Bruijn and Van Dijk 2003; Foresight 2011; Black et al. 2013; Zickgraf et al. 2016; Dun et al. 2020; Boas 2020; Peth and Sakdapolrak 2020; Blondin 2021). It may also involve immobility, as people may not want to or may not be able to move away in a situation of climate risk (e.g. Black et al. 2011b; Adams

2016; Zickgraf 2018; Farbotko and McMichael 2019; Wiegel et al. 2021). This plurality of mobilities cannot be well captured by the term ‘migration’, which in discourses of climate change tends to be interpreted as representing one-off, long-distance and cross-border movements of large groups of people (Boas et al. 2019).

Diversity in movement, furthermore, is shaped by people’s capabilities and aspirations to move, which can be highly uneven (De Haas 2014, 2021). Some may face physical, socio-cultural or legal constraints to moving, whilst others have no resources to relocate or do not have friends or family in other places who they can connect with (Wiegel, Boas, and Warner 2019). But some people also prefer to stay in place (Adams 2016), even when policymakers or humanitarian organisations are putting emphasis on the need to relocate to safer areas (Perumal 2018; Farbotko and McMichael 2019; Farbotko et al. 2020; Bordner, Ferguson, and Ortolano 2020; Wiegel et al. 2021). People may have different perceptions of the perceived risk or feel a strong level of belonging to the place they live (Adams 2016; Parsons 2019; Farbotko et al. 2020; Bordner, Ferguson, and Ortolano 2020; Blondin 2021; Wiegel et al. 2021). These empirical examples move far beyond the limited types of movement assumed in ‘climate migrant’ or ‘refugee’ narratives, yet they are a reality for many people in climate change-affected areas around the globe.

This multi-faceted perspective on climate mobilities is embedded in the wider ‘mobilities paradigm’ (Sheller and Urry 2006), which has its roots in disciplines of human geography, sociology and science and technology studies. The mobilities paradigm challenges views of territories and places as fixed, and questioning understandings of mobilities as exceptional, and sedentary lifestyles as the norm (Adey 2006; Sheller 2018; see also Schapendonk, Bolay, and Dahinden 2021). Central to this approach is the notion that the different forms of mobilities – of people, materials, ideas, technologies, knowledge, and risks – are already central to ‘producing and reproducing social relations on local, regional, and global scales’ in our globalised world (Wiegel, Boas, and Warner 2019, 4; for details on the mobilities paradigm see Sheller and Urry 2006; Urry 2007; Sheller 2018). The mobilities paradigm does not just focus on the movements of people or things themselves, but also on how these are interrelated, shaped by and reinforcing of unequal power relations (Sheller 2018). Applying this perspective makes it central to consider climate mobilities not as necessarily novel and exceptional, but as deeply embedded within historical, current and evolving practices of mobility. Our emphasis is therefore less on examining what drives people to move out of seemingly stable places of origin impacted by climate change (Black et al. 2011a), but rather on how such movements take shape and evolve along the way, in relation to the mobilities of others, of information, the climate and so on. This also means we adopt an open perspective as to how the impacts of climate change are perceived – whether or not as a risk or a reason for leaving – and how this is mediated by these relations and wider socio-political contexts (Hulme 2009; Mortreux and Barnett 2009; Parsons 2019; Wiegel et al. 2021).

Climate change, then, takes, *prima facie*, a less prominent role in the climate mobilities perspective than in the ‘climate migration’ or ‘refugee’ discourses. This is arguably important, even if counter-intuitive, to capture the complexity of climate change and its relation to human mobility. It recognises that climate change, like mobilities, is multi-scalar and relational. Climate change ‘cannot be reduced to “impacts” that can be isolated, enumerated, modelled and hence predicted [... Instead, it] exerts its

influence through the matrix of social, economic, environmental, cultural, historical and political processes'.¹ This also shapes how people are impacted by these changes (Hulme 2009), and what options they have to respond to them. As it is in most cases empirically impossible to distinguish between 'climate' and 'non-climate' migrants (Black et al. 2011a; Mayer 2013; Nicholson 2014; Farbotko 2017), a climate mobilities lens gives analytical priority instead to understanding how people perceive and interpret climate changes in their surroundings in relation to their im/mobilities (Kothari and Arnall 2019; Parsons 2019). This helps to understand why people decide to move, how and where, or why people decide to stay. For example, a recent study in Chilean Patagonia shows how perception of climate risk matters to understand why local populations may reject relocation even when being severely impacted by climate change (Wiegel et al. 2021). In this case, the rejection of relocation was grounded in locally specific social representations of nature and human-nature relations that view living with risk as part of normal life in a context frequently affected by environmental hazards, rendering relocation 'out of harm's way' ineffective.

Attention to the multiplicities of climate mobilities, in terms of how people move and their diverse relations to the impacts of climate change, are central to the contributions in this Special Issue. To start with, **Carol Farbotko** (2022) demonstrates the complex ways in which mobilities and immobilities intersect, stressing that we cannot assume mass out-displacement as the primary response to climate risk. She does so by highlighting how the global imaginary of climate displacement from low-lying islands of the Pacific is at odds with 'anti-displacement' ideas and emerging *re*-emplacements in a rural, low-lying islet of Tuvalu named Funafala. Farbotko defines anti-displacement mobilities as processes in which ideas, people and/or matter become mobile as a means to resist externally imposed climate displacement narratives. Instead, Indigenous culture is being revitalised, a mid plans for land to be reclaimed, and for sand to be replaced to better protect the island from rising sea-levels. In that sense, through mobilities of ideas, people and sand, as she writes, the people from Funafala move locally to actively resist the idea of inevitable international relocation.

Equally in stark contrast to ideas and notions of mass flows of climate migrants crossing state borders and shifting continents, **Suzu Blondin** (2022) highlights the impact of environmental and climate risk for everyday, mundane types of mobility, such as people's capacities to access food markets, healthcare facilities, and job opportunities. In making this argument, she pays attention to the role of material infrastructures in facilitating or obstructing such daily human mobilities. She exemplifies this through a study of Tajikistan's Bartang Valley, showing how impacts of environmental change affect infrastructures and how these hamper necessary short-term and long-term mobility, making the residence in these remote villages increasingly difficult for the local population.

Following these nuanced and grounded analyses of climate mobilities, **Caroline Zickgraf** (2022) critiques the perception that immobility and mobility are binary opposites, examining the close relations between migrants and non-migrants. This she studies through the everyday experiences of an urban Senegalese fishing community in Saint-Louis in dealing with a changing marine environment. She shows how people engage in an interrelated set of 'micro-mobilities' close to home as well as international labour mobility as a way to cope with these changes. She also stresses how non-migrants are not necessarily immobile, as those staying in Saint Louis do engage in small-scale

movements that intersect with those who moved to other countries for fishing or labour via phone, visits or material exchanges.

It is exactly this exchange between those residing in different places that **Ingrid Boas (2022)** examines. She studies how the digitalisation of herding in the Kenyan Laikipia Highlands enables pastoralist communities to navigate social and climate risk. These pastoralists are faced with numerous challenges that relate to the privatisation of land, urbanisation, and climatic changes causing uncertainties in the weather seasons and complicating livestock management and mobility. She examines how pastoralists are navigating these uncertainties through the use of basic phones, smart phones and social media, allowing those in the city to connect with those taking care of their livestock or for information on the weather to be quickly exchanged via WhatsApp groups. Taking on a mix of physical and digital forms, these exchanges allow herding identities to endure despite the shifting environments.

Further zooming into the digital, **David Durand-Delacre (2022)** analyses how documentary films reproduce the global imaginary of mass climate change-induced migration. He examines six documentary films that portray island and coastal communities to be at risk of climate change and possible migration. Applying mobilities theory to documentary filmmaking, he shows how filmmakers should pay close attention not just to the mobilities of people being represented, but also to how their own mobilities influence their representations of people, mobilities, and climate change impacts, and to how these representations (their films) are being circulated. Whose and which mobilities are prioritised in this process is crucial. This similarly invites us as academics to do the same, so Durand-Delacre argues, and be more reflective of our own research practices and the representations (and potential biases) that these possibly induce.

Taken together, the articles show the many different ways in which people, ideas and things move – representing everyday realities, forced flight or forced immobility, but also voluntary forms of immobility or re-emplacements as everyday resistance against pressures to relocate. These diverse climate mobilities are neither exceptional nor novel, but deeply embedded in historical patterns of movement and in day-to-day affairs. As Durand-Delacre (2022) argues in his paper, the ways in which mobilities intersect and become represented have a major impact on how climate mobilities become perceived. Our approach thus pleads for a more empirically-driven and open perspective, that switches the storylines to representing the diversity and complexity of what is happening in the everyday lives of those impacted by climate change. Climate mobilities, in brief, can best be understood as located in places, relational, multi-scalar, and always shifting. They involve not just the movement of people from point A to point B, but also concern the in-between steps, the meanings and lived experiences associated with diverse constellations of (im)mobilities (Sheller and Urry 2006; Sheller 2018). Even as we point toward this diversity of climate mobilities, however, we are also very aware of the constraints imposed by climate mobility regimes with their uneven implications and differential impacts, which we consider in the next section.

Climate mobility regimes

In addition to examining various types of climate im/mobilities, this Special Issue is about a wider set of questions on power and politics needed to understand how climate mobilities are framed, addressed and governed. In examining this, we build on

Glick Schiller and Salazar's (2013) call to theorise and examine how mobilities become normalised, facilitated but also hampered, stigmatised, or exploited. They refer to regimes of mobility that normalise the movement of some, while making unlawful and/or limiting the movement of others (see also Cranston, Schapendonk, and Spaan 2018, this journal; and Schapendonk et al. 2020).

These dynamics we study through what we call *climate mobility regimes*.² These refer to interconnected sets of socio-economic and political relations consisting of different types of actors, that frame, manage, and regulate the nexus between mobilities and climate change in a particular manner (Paprocki 2018), resulting in particular modes of governing of climate mobilities. The regime is not an actor in itself but reflects 'the aggregate effects of the actors composing it' (Paprocki 2018, 956), which may in themselves be contradictory or overlapping but as a whole steer the governing of climate mobilities in a particular direction (Schapendonk 2018). Actors such as national governments, NGOs, UN agencies, journalists and even scientists all play a role in shaping climate mobility regimes. As part of this shaping, the long-dominant framing of the relation between climate change and human mobility in terms of 'mass migration', 'refugees', 'threat', and 'chaos', used to express alarm about unabated climate change (Bettini 2013), have also informed – and in some cases continue to do so – policy-making, negotiations, and led to the securitisation of the 'climate migrant' subject (Hartmann 2010; White 2011; Trombetta 2014; Nash 2019; Warner and Boas 2019). For example, while recent reports by the International Organization for Migration (Fiji office), the Office of the UN High Commissioner for Human Rights, and Vanuatu's national policy acknowledge the complex nature of human mobility and emphasising the diverse protection needs that are at play when working with those impacted by climate change and environmental hazards (Government of Vanuatu 2018; Coelho 2020; OHCHR 2021), in international negotiations at the UN Security Council, references to climate change-induced mass migrations continue to be made.

In this context, the power of representation is central to climate mobility regimes. Climate change is in many ways about the future, making much of its governance about anticipation, risk and governing under uncertainty (Baldwin, Fröhlich, and Rothe 2019; Vervoort and Gupta 2018). Paprocki (2018) explains how this anticipation involves acts of imagination and experimentation, giving leeway to donors such as the World Bank to steer (local, national or even regional) governance actions in particular directions – which, as she highlights, can lead to dispossession by groups less able to influence this discourse about their climate future. For example, in her work on Bangladesh, Paprocki (2019) refers to coastal populations becoming further marginalised by discourses and policies on climate adaptation. In that case, the World Bank supported shrimp aquaculture projects to replace most farmlands in Southwest Bangladesh as a means to adapt to future anticipated sea-level rise to a more fitting economic landscape. This has, however, led to saltwater intrusion and rural job loss, resulting in rural-urban migration. Similarly, in the context of the Marshall Islands, Bordner, Ferguson, and Ortolano (2020) demonstrate how donors are making aid decisions according to their own storylines on inevitable relocation, at the expense of the national policy clearly prioritising in-situ adaptation that aligns with the needs, aspirations, rights and preferences of its climate-affected population.

Climate mobility regimes and their acts of representation and governance, as dominant as they may be, can also become rejected or reframed through alternative storylines. For instance, in the Marshall Islands there is strong resistance towards the donor-supported relocation storyline amongst the Marshall Islands government and civil society (Bordner, Ferguson, and Ortolano 2020). This shows that climate mobility regimes are not fixed entities but are and can be contested, circumvented or renegotiated by those governed by it (Sheller 2018; Schapendonk 2018). Migrants (or even national governments, if not part of the dominant regime) are not just subject to control of these regimes of power but try to ‘navigate’ these spaces by finding ‘room for manoeuvre during their im/mobility process’ (Schapendonk 2018, 664), or they can do so through protest and resistance, for instance when challenging pressures to relocate (Wiegel et al. 2021; Paprocki 2019; Bordner, Ferguson, and Ortolano 2020). This leaves the question: ‘what modes of counter power and subversive mobilities might inform the kinds of *moves* that can be made to resist, overturn, challenge or escape ... [dominant] mobility regimes’ (Sheller 2018, 23)?

These are questions central to the concept of *mobility justice* (Sheller 2018), again another relevant and related lens. Coined by Mimi Sheller, a co-founder of the mobilities paradigm, mobility justice works reflect more explicitly on ‘how power and inequality inform the governance and control of movement, shaping the patterns of unequal mobility and immobility in the circulation of people, resources and information’ (2018, 14), and the various ways in which it is resisted. Applied to the field of climate mobilities, this concept invites us to think critically about how the rights to dwell and the rights to move of those most affected by climate change are protected and addressed by climate mobility regimes, especially since they often are part of those populations who have least contributed to climate change themselves. As such, mobility justice allows us to analyse the interconnections and entanglements of climate im/mobilities across sectors and scales, for example by exposing unequal relations between elite (hyper-)mobilities responsible for much CO₂ emissions, and the daily mobilities of climate change-affected populations to diversify their livelihoods.

The authors in this Special Issue reflect on the concepts of climate mobility regimes, resistance and mobility justice from a variety of different angles. **Carol Farbotko**’s contribution focuses on dynamics of resistance to climate mobility regimes (Farbotko 2022). She discusses how resistance to agendas on climate displacement (a dominant climate mobility regime) imposed on the community of Funafala are bound up in local mobilities. In this way, it is revealed that climate im/mobilities are political in themselves. In Farbotko’s paper, the processes of return-mobility, towards culturally significant land, challenge global-level assumptions and (post-)colonial understandings of climate-vulnerable communities in the Global South, and instead foreground Indigenous knowledge, decolonialisation of climate mobility regimes, and local-level perceptions of risk, mobility and place.

Her paper also reminds us of the work by Whyte, Talley, and Gibson (2019) and Suliman et al. (2019), examining the impact colonisation has had in containing mobility options promoted through climate mobility regimes that once were central to many Indigenous groups. They highlight how the restriction of Indigenous mobilities (e.g. of hunters, pastoralists, fishers) by colonialist logics of the nation-state system, also being endorsed by present-day climate mobility regimes, leads to ‘anti-adaptive conditions’

in the context of a changing climate (Wiegel, Boas, and Warner 2019, 331). As not being able to move or no longer having the in-depth indigenous knowledge of the environmental landscape, might just as well enhance vulnerabilities to climate risk. This is also reflected in the contribution by **Ingrid Boas**: in her paper, she makes explicit the interconnections between colonial legacies for land tenure and how this restricts present-day mobilities by pastoralists in the Kenyan Laikipia Highlands (Boas 2022). Her paper shows how dominant post-colonial mobility regimes result in particular mobility injustices making it increasingly difficult for pastoralists to cope with changing a climate and other uncertainties impeding on their mobility.

Caroline Zickgraf, in her paper on fishery communities in Senegal, connects to the long-standing histories of fishery movement and how these shape present-day climate mobilities and related mobility regimes (Zickgraf 2022). She highlights how short-term fishing mobilities of some household members crossing the border between Senegal and Mauritania are part of a broader household strategy allowing the families to stay in their erosion-affected homes in coastal Senegal. This type of circular mobility, a household adaptation strategy to the effects of sea-level rise, depends on the issuing of licenses for Senegalese artisanal fishers by the Mauritanian government – a difficult and often unreliable legal mechanism. Zickgraf reports that fishers who were unable to obtain licenses often cross the international border illegally, rendering them subject to punishments such as physical violence, heavy fines and/or the confiscation of their catch when detected. This underlines how the circular mobilities of Senegalese fishery communities, based on long-standing histories of fishery movement, are now governed by international mobility regimes that in the long run can affect their (economic) ability to stay in their homes.

As mentioned above, climate mobility regimes become shaped, challenged, and renegotiated by different types of actors, including actors not typically identified as those who govern; think of scientists or journalists. Gupta and Möller have identified such more subtle forms of governance as the *de facto* steering that takes place via norms, ideas, reports, media, etcetera (Gupta and Möller 2019; Paprocki 2019). The contribution by **David Durand-Delacre** exemplifies this dynamic by emphasising how visuals, specifically documentary films, produce certain global imaginaries of climate migration (Durand-Delacre 2022). In some cases, they reproduce problematic representations of climate refugees as passive people waiting to be rescued or as ‘dangerous subjects’ causing chaos abroad. A key example, Durand-Delacre explains, comes from the documentary ‘Climate Refugees’ by Michael P. Nash, which uses a visual of the world with red arrows all pointing to the United States, depicting the US as the primary destination areas for those forced to flee climate change impacts. This and similar frames have come to shape public and policy perceptions of how climate change and human migration relate (Boas et al. 2019). At the same time, it is the hypermobility of filmmakers, who have the legal and economic possibilities to travel the world for their documentaries, in sharp contrast with the limited or suppressed international mobilities of those most affected by climate change, whose movement might also be further curbed as a consequence of the securitisation of climate mobilities promoted by alarmist documentaries. Durand-Delacre here points us to an important example of intersecting mobility injustices, reminding us to think about climate mobilities and their interplay across scales and that the circulation of ideas has actual consequences (Sheller 2018). He also

shows, however, that careful attention to how uneven mobilities shape the production of representations can lead to more nuanced representations, sensitive to the complex, multi-form nature of climate mobilities, which could in turn invite more inclusive responses to displacement risk.

Also the contribution of **Suzy Blondin** reflects on the intersection of climate mobility regimes and mobility justice by exploring the right to dwell in place and its dependency on regular access to necessary short-distance, short-duration mobilities (Blondin 2022). She discusses how this right is increasingly infringed upon when infrastructures central to the facilitation of these mobilities are not sufficiently protected by the government against the impacts of environmental hazards enhanced by climate change. This further decay of infrastructure and the exclusion of this already (geographically) marginalised population and might, in the long term, prevent isolated populations from remaining in the isolated valleys, ‘forcing’ them to leave their homes and ‘preventing’ people from returning home after having left the valley.

In showing the diverse implications and impacts of climate mobility regimes for different place-based and mobile communities, we contribute to providing a plural and relational perspective to the discussions around climate change and migration. We seek to show how climate disruptions are not simply about mobilising people as ‘climate refugees’, but are about the disruption of everyday mobilities, the production of adaptive circular mobilities, or the political contestation of who and what moves in various locations. Climate mobility regimes, in other words, are socially complex, politically embedded, and interact also with the non-human mobilities of animal species, plant life, weather patterns, and shifting ecosystem dynamics – as well as with the mobilities of wildfires, flooding, hurricanes or extreme heat.

The recent experiences of the highly mobile Corona-virus have also shown that unforeseen events intersect in various ways with climate mobilities and mobility regimes: For example, the pandemic has further hampered the mobilities of those already lacking rights and protection such as migrants and other mobile people (Cundill et al. 2021), which might have long-lasting effects. Many civil-rights observers worry aspects of the special measures implemented to deal with Covid-19 may stay in place as normalised governance tools to anticipate future crises. Incidences of extreme weather events over the past two years have been complicated by the prevalence of Covid-19 amongst evacuees who had to congregate while seeking shelter (Du Parc and Bolo Spieth 2020; Hut et al. 2020). The governance of such emergency response may continue to be challenged in ways that amplify mobility injustices in terms of who is most exposed to socio-climate vulnerability as well as to health hazards. On the other hand, we have seen that the experience of the pandemic interplays with climate mobility regimes calling for communities to build local resilience (Farbotko 2021), which may now be amplified by the anti-Covid precautionary principles. It is such issues that are likely to occupy future research projects in the domain of climate mobilities.

Conclusion

This article, and the Special Issue it introduces, set out to further the research on climate mobilities, drawing on mobilities studies and the empirical insights of recent years into the wide variety of interrelations between climate change and im/mobilities. Summing

up, the central tenets of the climate mobilities approach, as reflected in our contributions, are the following:

1. Climate mobilities occur within complex constellations of various mobilities and are neither unidirectional nor singularly determined – thus, we need to broaden our conception of the various ways in which climate and environmental changes impact human mobilities beyond uni-directional, long-distance migrations.
2. Climate mobilities are always relational, across spatial and temporal scales. Immobilities are always mixed together and relational to mobilities. Equally, human im/mobilities relate – across scales – to the im/mobilities of the weather, water, plant species, non-human animals, energy flows, knowledge, risks, as well as the digital and communicative mobilities that mediate physical and spatial mobilities in complex and indeterminate ways.
3. Given the relationality of climate mobilities, research should also attend to the relational effects of climate mobility regimes. This means not to lose sight of differential implications of climate mobility regimes and how this can play out across scales, including the role played by atypical governing actors, such as journalists or filmmakers in inducing a particular circulation of ideas (e.g. that of mass climate migration) that can impede on people's actual mobilities in climate change-affected areas.
4. At the same time, research needs to attend to the many ways in which climate mobility regimes are resisted and reframed from below, with those affected reclaiming their right to mobility justice. Climate mobilities, for example, reminds us of the many mobility options that once were central to many Indigenous groups and thus suggest ways in which we might push back against perspectives of settlement as a norm, or against pushes for relocation under 'climate refugee' storylines. It also helps us to more directly question unjust climate mobilities relations, such as those between the many energy-intensive mobilities of the privileged that contribute to climate change, and how these are in stark contrast to the limited possibilities for mobility of those most affected by climate change.

The diversity of responses to climate mobilities that we have outlined in this Special Issue, and the entanglement of various kinds of mobilities and emplacements, may be even more important to keep in mind as we seek to address complex pandemic (im)mobilities and their differential impacts (Adey et al. 2021). The ways global emergencies such as the Covid-19 pandemic intersect with and shape climate mobilities and the climate mobility regimes at work, make it a focal point for future research in this field.

Notes

1. This quote comes from an unpublished manuscript by the same co-authors as listed under Boas et al. (2019) in the reference list.
2. In this formulation, we draw on Paprocki's work on adaptation regimes defined as 'a socially and historically specific configuration of power that governs the landscape of possible intervention in the face of climate change' (Paprocki 2018, 957).

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