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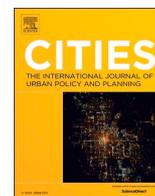
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Vulnerability and activism in urban climate politics: An actor-centered approach to transformational adaptation in Malmö (Sweden)

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ABSTRACT

Climate change adaptation is rising on the agenda of cities. However, critics have argued that urban adaptation efforts largely focus on preserving economic growth while overlooking the root causes of unequal vulnerability to climate impacts, giving rise to climate injustices. In response, literature on transformational adaptation has politicized these issues but it has remained largely conceptual, particularly in relation to the question of which actors can define and advance transformative approaches. Furthermore, existing empirical studies focus on positive cases while ignoring why these issues more commonly are not politicized. In this article, we add empirical rigour to these debates through an investigation into Malmö's climate politics. We analyse what enables or inhibits the role of three political outsiders – disadvantaged communities, climate movements and social justice activists – in politicizing urban climate adaptation. We find that, while the most vulnerable social groups struggle with climatic impacts and experience difficulties in politicizing these issues, climate movements remain focused on climate mitigation and largely ignore local adaptation. In turn, we highlight the untapped capacity of social justice activism to act as social infrastructure for adaptation. Our findings suggest that alliances between the victims of adaptation injustices and local activist groups could support the politicization of those grievances by responding to emerging needs and by building policy-oriented pressure for transformational adaptation. However, we identify several factors that limit this potential, thereby contributing to an understanding of why social movements sometimes do not live up to their transformational potential.

1. Introduction

The impacts of climate change are becoming increasingly salient just as further warming becomes locked in as a result of insufficient climate mitigation. While cities in the Global South have already had to deal with greater impacts, cities in the Global North are also experiencing impacts like hurricanes, flooding, droughts and heat waves (EEA, 2020), prompting calls for adaptation and disaster-risk reduction (IPCC, 2022; UNEP, 2021). In response, cities around the world are putting adaptation higher on the political agenda (Biagini et al., 2014), albeit at different paces and with varied outcomes (Araos et al., 2016).

However, critics have argued that past and current urban climate adaptation (UCA) efforts most often prioritize the preservation of the socio-economic status quo by focusing on the resilience of economic and urban growth (Long & Rice, 2019). In so doing, such interventions overlook the root causes of climatic impacts and people's unequally

distributed vulnerability to them (Pelling, 2010) leading to an uneven implementation of climate-oriented infrastructures, policies and programs (Rice et al., 2021). It is furthermore understood that adaptation is inherently political and that to prevent distributional and procedural climate injustices, unavoidable trade-offs must be made explicit (Adger et al., 2017; Eriksen et al., 2015; Schlosberg et al., 2017). Literature on transformational adaptation discusses ways to politicize adaptation, for instance by tackling how cities produce climate vulnerabilities and injustices within and outside their territory and by redressing uneven power structures that allow the reproduction of unequal vulnerabilities (Mikulewicz, 2018; O'Brien, 2012; Pelling, 2010; Zografos et al., 2020).

While stimulating, we share recent concerns that this debate has remained largely conceptual (e.g. Boda & Jerneck, 2019; Shi et al., 2016; Zografos et al., 2020), particularly in relation to the core issues of which actors can be expected to address the challenges of transformational adaptation in urban contexts and which limits they

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encounter. Given the disruptive nature of transformational adaptation, political elites are unlikely to advance this cause, putting the onus on political outsiders (O'Brien, 2012). Outsiders can be defined as those actors or communities who are not formally involved – or only marginally so – in institutional political decision making processes, either as a strategic choice, like in the case of some social movements, or due to political marginalization, as in the case of many vulnerable and disadvantaged communities (de Moor et al., 2017; Newell, 2006). To address an existing dearth of empirical research we explore the role various outsider communities could play in politicizing UCA, what limits their engagement, and which alternative transformative pathways for politicizing adaptation may emerge from their cooperation.

Disadvantaged communities who experience adaptation-related climate injustices may want to politicize their grievances but may also lack resources to do so. By contrast, climate movements currently enjoy considerable political momentum but tend to be disconnected from disadvantaged communities and have been found to focus on mitigation rather than adaptation, especially in the Global North. Activists that address social injustices in the city, provide services to disenfranchised and manage physical spaces to organize their activities, could connect these prior groups' struggles but may lack the focus on climate politics. The potential cooperation between these three political outsiders could advance collective capabilities to define and to drive transformations based on justice and equity. We therefore need a greater understanding of the conditions for such cooperation.

We reflect on these issues through a case study of the Swedish city of Malmö. Malmö seeks to present itself as 'smart', 'green' and 'sustainable', but has been extensively criticized for using these labels to promote a business-as-usual economic and urban growth agenda (Holgersen & Malm, 2015). Studies of the city's adaptation politics indicate shortcomings as well, such as the underrepresentation of disadvantaged communities' interests (Wamsler & Brink, 2014). By exploring the roles the three above mentioned outsider groups could play in adaptation politics in this particular city, this paper provides an empirically grounded analysis of what enables and inhibits the bottom-up politicization of UCA and the promotion of transformational adaptation more generally.

2. Theorizing the challenges of urban climate adaptation and the role of activism

Following the adoption of the 2013 EU Adaptation Strategy, most European cities are now addressing adaptation in their plans. While urban climate adaptation (UCA) is mostly framed as a techno-managerial challenge, there is a growing interest in its political dimensions (Adger et al., 2009; Meerow & Mitchell, 2017; Ribot, 2011). According to Eriksen et al. (2015:523):

“What counts as ‘adaptive’ is always political and contested. What is seen as positive adaptation to one group of people may be seen as mal-adaptation to another, and political processes determine which view is considered more important at different scales and to different constituencies.”

Critical scholarship has therefore developed various arguments for the politicization of adaptation (Mikulewicz, 2018). Following Pelling (2010) and Pelling et al. (2015) work on the global South, transformational UCA is increasingly applied to cities in the global North. Here, it is framed in contrast to conventional UCA insofar as it responds “to climate change by pursuing fundamental and structural shifts in urbanization processes and outcomes, which are meant to challenge unsustainable development pathways in a radical way” (Zografos et al., 2020:1). These shifts would run against the neoliberal tendencies embedded in the paradigm of climate urbanism (Long & Rice, 2020) with its emphasis on infrastructure development, technological fixes and strategic policy approaches, instead turning the focus to the city's production of climate vulnerabilities within and outside its territory.

Moreover, transformational UCA would focus on “generative causes of vulnerability to climate change” (Zografos et al., 2020:2), especially social inequality. Finally, it would change “existing local politics in order to overcome barriers embedded within entrenched institutional norms protected by uneven power structures, often supporting growth” (Zografos et al., 2020:2). In brief, transformational approaches to urban adaptation would tackle head on the widespread inequalities in power, income and relative safety structuring today's cities (Dawson, 2017).

A key critique raised against current literature on transformational adaptation is that it is often too conceptual, focusing on what would constitute a just and transformational form of adaptation rather than asking how and by whom it could be shaped and achieved (Zografos et al., 2020). This critique echoes wider discussions in the literature on sustainability transformations, which highlight that outcomes have been too easily defined as transformational without taking into account the political nature of transformations. They need to consider which actors have the power to define what transformations are desirable and to drive these processes (Bluwstein, 2021; Blythe et al., 2018). For instance, Scoones et al. (2020:67) have advocated the need to complement structural and systemic approaches that predefine transformations based on desirable outcomes with *enabling approaches* that “emphasize creating the social attributes — capacities — that empower individuals and communities to take action on their own behalf.” Importantly, Scoones et al.'s (2020) critique does not only pertain to techno-managerial approaches eager to apply buzz-words like ‘transformation’ to reformist measures that in fact do not address root-causes of vulnerability. The critique also applies to more critical approaches that define transformation in abstract academic terms, without considering that truly transformational change must involve a bottom-up process of empowering disadvantaged communities to define their own needs and demands (Mikulewicz, 2018). In response, our main aim is to contribute to the broader literature on sustainability transformations and trends in adaptation by developing an empirically-grounded, actor-centered approach to understanding what enables and what limits grassroots actors in shaping transformations.

Achieving just adaptation is a major concern for transformational approaches, including Schlosberg et al.'s (2017) application of various forms of justice to transformational UCA. In particular, the capabilities approach brings further conceptual clarity to this argument. Firstly, its focus on tackling generative causes of climate vulnerability and their unequal distribution speaks directly to ‘distributional justice’. According to Meerow and Mitchell “poor and marginalized groups seem to suffer disproportionately from climate impacts [and] (...) adaptation efforts may actually exacerbate inequalities and provide new avenues for injustice.” (2017:2623) Anguelovski et al. (2016) argue that adaptation planning mainly displaces marginalized communities while benefiting privileged urbanites. The persistence of such injustices has been attributed to the fact that UCA is embedded in a neoliberal urban development paradigm focused on ensuring economic growth within an interurban competition for investment (Hodson & Marvin, 2009). Adaptation interventions and climate urbanism more generally (Long & Rice, 2020) thereby often focus on zones of economic activity such as harbors and business districts, and much less on the vulnerability of particular groups or zones of less ‘economic importance’. The first aim of transformational UCA is thus to address distributional injustices by breaking out of this paradigm.

However, the possibility of doing so is related to the question of procedural injustice. Distributional injustices often result from an unequal distribution of political power. UCA involves decisions about what forms of adaptation are to be prioritized and which are not (e.g. Adger et al., 2017). Nonetheless, mainstream UCA has typically limited access for outsiders and disadvantaged communities to shape cities' climate adaptation (e.g. Haverkamp, 2017). Redressing such procedural injustices is, according to Schlosberg et al. (2017), a key step towards redressing climate injustices.

Yet, discussions of procedural justice often focus too much on the

distribution of power over a more or less predefined set of adaptive options and too little on what communities need to thrive and how their needs can be guaranteed even in the face of climate disruptions. According to [Felli and Castree \(2012:2\)](#):

“All social actors are presented as having basically the same interests, rationality, and aspirations – differing only in the level of ‘assets’ they command (and thus in their ‘adaptive capacity’).”

[Schlosberg et al.'s \(2017\)](#) ‘capabilities’ approach to just adaptation therefore incorporates the need for distributional and procedural justice while centering the discussion on communities’ needs to thrive, thus echoing [Scoones et al.'s \(2020\)](#) “enabling approach” to transformation. It is a more open-ended approach to what constitutes “good adaptation” that underlines the central importance of democratizing UCA by meaningfully involving (particularly vulnerable) communities exposed to climate impacts; not just in deciding over various adaptation options but in shaping what meaningful adaptation would imply ([Mikulewicz, 2018](#)). While [Schlosberg et al. \(2017\)](#) emphasize the potential for deliberative engagement in adaptation planning, participatory processes have, in practice, often been either absent ([Haverkamp, 2017](#)) or tokenistic ([Few et al., 2007](#)). This is not a coincidence. Transformational adaptation has by definition a disruptive quality by seeking to shift focus to structural drivers of vulnerability and by radically democratizing adaptive processes ([Mikulewicz, 2018](#); [Temper et al., 2018](#)).

Transformational adaptation should therefore mainly be expected to be resisted, rather than facilitated, by political elites ([O’Brien, 2012](#); [Pelling, 2010](#)). Following the enabling approach ([Scoones et al., 2020](#)), the role of political outsiders like social movements - who can resist maladaptation, formulate alternatives and force openings into political decision making - thus becomes important in finding pathways to transformational change ([Blythe et al., 2018](#); [Feola et al., 2021](#)), including in the field of adaptation ([Boda & Jerneck, 2019](#); [de Moor, 2021](#)).

2.1. A social movement for transformational adaptation

While many scholars thus advocate an actor-centered approach to transformations that questions not just what adaptation could or should be about but also who determines and advances it, empirical research remains scarce – in particular in studies on transformational adaptation in European cities. As a result, it remains to be seen under what conditions outsiders like social movements can drive sustainability transformations. Research on contentious episodes in adaptation politics has focused on the Global South where frontline communities battling with climatic impacts are predominantly located (e.g. [Chu, 2018](#); [Falzon, 2021](#); [Klepp, 2014](#); [Paprocki, 2019](#)). Research on European cities – where vulnerable communities are also increasingly at risk of climatic disruptions – has remained scarce (however, see [Zografos et al., 2020](#)). Furthermore, studies tend to select cases where social movements are successfully involved (e.g. [Bullard & Wright, 2009](#); [Crow, 2014](#); [Dawson, 2017](#)). Following [McAdam and Boudet \(2012\)](#), a more complete picture of the role of social movements and other political outsiders can only emerge if we also take into account cases where there appears to be a need and a capacity to politicize adaptation but this fails to materialize.

We therefore present a case study of the city of Malmö in Sweden, where as we will see, even under ‘favorable’ conditions political outsiders fail to politicize adaptation. We explore three relevant outsider groups and their relation with adaptation: members of disadvantaged communities, climate movements and social justice activists. These groups, as well as the broader category of ‘outsiders’, present ideal types that in reality may overlap with each other or with other actors. However, as we will discuss, it is in fact the large degree of disconnectedness between them that inhibits the politicization of UCA in Malmö.

First, members of disadvantaged and vulnerable communities are most likely to have direct experience of adaptation-related climate

injustices. Following the grievance theory of social movements, they may be expected to mobilize on the issue ([Gamson, 1968](#)). However, the resource-mobilization theory ([Zald & McCarthy, 2002](#)) underlines the need for various forms of capital to enable successful mobilization, which is precisely what may be missing in disadvantaged communities and which may be even undermined by neoliberal urbanism and the impacts of climate change ([Chu, 2018](#); [Tierney, 2015](#)). Disadvantaged communities may therefore depend on the support of more resourceful political allies in the city ([Nicholls & Uitermark, 2017](#)).

Second, climate movements may present such allies in politicizing UCA. Climate activists provide crucial contributions to debates on principles and criteria for equity and fairness in climate change responses and push for transformations rooted in bargaining processes and participation that are inclusive and rights-based ([Krause, 2018](#)). When informed by climate justice concerns, activists have drawn attention to the historical and contemporary inequalities that underlie climate change, while at the same time advocating for mitigation and adaptation strategies that do not increase vulnerabilities but reduce them ([Newell et al., 2021](#); [Walker, 2012](#)). Given that adaptation can be equally relevant from a climate justice point of view, UCA may indeed emerge on the radar of climate movements. At the same time, climate activism has largely been portrayed as being focused on mitigation, operating a global perspective that is disconnected from local justice issues (e.g. [de Moor, 2021](#)).

Third, it is in this caveat that we imagine the relevance of social justice activists. What they lack in climate credentials they make up for with a capacity to address (local) social justice issues through political campaigns, service provision and organizational capacity. Furthermore, they are often described as playing vital roles in connecting urban struggles by enabling alliances between more and less resourceful groups ([Hansen, 2020](#); [Nicholls & Uitermark, 2017](#)). Hence, they may provide spaces (both physical and social) where vulnerable communities and climate activists become united in joint efforts to advance transformational UCA or to address local adaptation-related injustices more generally. Research from the US indeed suggests that this interplay between environmental and social justice campaigning may successfully address the adaptation-related injustices experienced by vulnerable communities. For instance, speaking about New York City shortly after Hurricane Sandy, [Dawson \(2017\)](#) points out how the networks and organizational capacity built by the Occupy Wall Street movement were reoriented towards disaster-relief in hard-hit poorer areas ignored for days by municipal and federal emergency apparatuses. [Bullard and Wright \(2009\)](#) and [Crow \(2014\)](#) describe similar dynamics in post-Katrina New Orleans. While disaster response is not the same as adaptation, studies also find evidence of adaptation planning emerging within the organizational and conceptual horizon of climate and environmental justice movements (e.g. [Climate Action Lab, 2019](#); [Méndez, 2020](#)).

Hence, an emerging question becomes why, in European contexts like Sweden, we see little evidence of the kind of social movement led politicization of adaptation that appears to be emerging in the US – despite increasing climate impacts and the presence of crucial outsiders. Recent research on urban social movements has underlined that while cities can be incubators of social struggle by engendering emancipatory coalitions ([Nicholls & Uitermark, 2017](#)), not all cities live up to this definition, challenging scholars to explore the exact conditions for politicization to occur ([Cohen, 2021](#); [de Moor, 2020](#)). Furthermore, the ‘red, black and green’ alliance represented by the environmental justice movement in the US has historically been much weaker in Europe ([Schlosberg, 2009](#)), which may explain why in this context there appears to be much less evidence of movement-led and contentious engagement with UCA. To advance our overarching aim of developing an actor-centered understanding of transformational adaptation, we thus explore such conditions by empirically examining the role played by each of the three political outsiders described above as well as potential alliances between them. Our approach is particularly innovative: by

looking beyond what groups are already campaigning on and identifying a need for action based on theoretical arguments, we evaluate the transformational potential of various political outsiders in local climate politics.

3. Methodology

Malmö presents a case that allows us to explore limits to mobilization on UCA even where key conditions for such mobilizations to emerge seem present. While climate change is high on Malmö's political agenda, and often used for branding purposes, the city has been criticized for perpetuating business-as-usual climate governance, thereby (re-)producing climate injustices (Holgersen & Malm, 2015; Wamsler & Brink, 2014). At the same time, within Sweden, the city has a reputation as having a highly active social movement scene which could be expected to politicize these issues. In three steps, we explored whether this happens.

Firstly, in order to understand what limitations the city may portray from the point of view of just and transformational adaptation, we have included the views of city officials and vulnerable groups. We conducted four interviews with local civil servants and politicians working in climate adaptation, and a total of fifteen semi-structured group interviews and individual interviews with asylum seekers, migrants and senior residents diverse in gender, profession, and age, seven of these interviews including individuals with health problems or disabilities. The interviews were complemented by field observations between 2018 and 2019 in selected neighborhoods where a majority of migrants, refugees and low-income earners reside (Nydale, Hermodsdal, Lindängen and Rosengård, see Fig. 1). Interviews and field observations focused on disadvantaged groups centered on the experience of climate disruptions, the political efforts to deal with them, and self-organized individual and collective coping mechanisms.

Secondly, to explore what role climate movements play in politicizing Malmö's adaptation strategies, we interviewed seventeen climate

activists. These semi-structured interviews were focused on their views and actions on just and transformational adaptation. We included representatives of established environmental and climate groups. Extinction Rebellion (XR) played a central role in the analysis due to its current role as the main organizing force behind urban climate activism in Sweden. After identifying the first respondents through desk research, we used a snowball sampling to identify other relevant interviewees.

Finally, to explore the involvement of Malmö's social justice movements in UCA, we interviewed two key organizers and coordinators of the social center Kontrapunkt, which can be defined as a 'direct social action' group (Zamponi & Bosi, 2018). The interviews were complemented by document analysis of relevant material on Kontrapunkt's website and of media articles on the social center's involvement in local political issues.

Data was analyzed using open and closed coding in NVivo software. By coding data according to key topics, such as statements about the need for activism on adaptation, the data was organized to facilitate thematic analyses in light of the main research questions.

4. Findings: politicizing adaptation in Malmö

Here, we first review some of the main research on adaptation to climate change impacts in Sweden and Malmö. Then, we present our own findings on Malmö civil servants' approach to adaptation, the adaptation challenges experienced by disadvantaged groups in the city, the role of climate movements in politicizing these issues and finally, social justice activists' potential role in UCA.

4.1. Governing climate change impacts in Sweden and Malmö

While Sweden is not among the countries most affected by climate change, impacts are becoming noticeable and adaptation has consequently risen on the political agenda (SKL, 2019; SCCV, 2007; Wamsler & Brink, 2014; Nationella expertrådet för klimatanpassning, 2022).



Fig. 1. The four neighborhoods of Malmö where interviews with residents and field observations were carried out, and the location of the social center Kontrapunkt.

Different climate scenarios estimate that the average temperature in Sweden is expected to rise between 3 and 5 degrees by the 2080s, which is higher than the global mean. Precipitation is expected to increase in autumn, winter and spring while the summer will be warmer and drier (SCCV, 2007). Consequently, extreme heat and flooding will increasingly affect Sweden.

The region of Skåne in the southernmost part of Sweden where Malmö is located is forecasted to be one of the hardest hit by the effects of climate change (Hall et al., 2015). In particular, it has the largest share of buildings, infrastructure and beaches at risk from flooding, coastal erosion and sea-level rise (SCCV, 2007), and it is among the country's regions facing the greatest increase in risk of forest fires (Yang et al., 2015). Such issues were experienced in particular during the extremely hot and dry summer of 2018, leading to more than 600 excess deaths across Sweden (Åström et al., 2019). Likewise, a series of floods and a number of storms have had major impacts on Sweden during the last decade, including a flooding event in 2014 in Malmö. The city continues to face considerable flood risks in the near future (Haghighatfashar et al., 2014).

This situation makes adaptation a crucial task for Sweden, and for Malmö in particular. However, research suggests important shortcomings in this domain. In contrast to mitigation, national guidelines for adaptation have been vague and not sufficiently supported by principles, policies and laws to guide local adaptation efforts (Granberg & Elander, 2007; Nationella expertrådet för klimatanpassning (Swedish National Expert Council for Climate Adaptation), 2022:8). In the absence of strong national level governance, adaptation largely falls on municipalities. However, research has shown that municipalities' ability to deliver on this front is limited by a lack of support from national and regional authorities and by a lack of collaboration between municipalities (Dymén & Langlais, 2013).

Malmö's adaptation furthermore lacks considerations of social justice issues (Brink & Wamsler, 2018; Nylund, 2014). In their analysis of citizen-municipality interactions for adaptation in three Swedish municipalities including Malmö, Brink and Wamsler (2018) found that consultation and planning often exclude or disadvantage vulnerable groups and thus fail to address equity in adaptation. Reflecting the discussions presented in our theory section, the adaptation needs of vulnerable citizens sometimes clash with the economic and social goals of the municipality's planning agenda. For example, citywide underground interventions for water catchment infrastructure are a necessary but expensive project that seems politically hard to achieve since local politicians are "not very keen in taking the decision to invest billions underneath the ground, that no one will see, for something that will pay up in the future" (Interview 37, VA SYD municipal water utility company, Malmö, 2019).

To better meet the adaptation needs of vulnerable communities, Brink and Wamsler (2018:93) argue that "municipal adaptation planning must (...) support and engage disadvantaged people, especially in urban regions such as Malmö". Doing so is not only vital from the point of view of distributional and procedural justice but may furthermore increase support for, and effectiveness of, adaptation measures (Wamsler et al., 2020). However, our own interviews indicate that Malmö City officials do not perceive much demand for public participation on adaptation. It is argued that citizens can – but rarely do – make use of standard participation procedures that apply to adaptation measures similar to other urban developments and that there is little need for a targeted promotion of participation in the domain of adaptation. Meanwhile, members of vulnerable communities indicate institutional barriers and difficulties in participating.

Previous critiques of Malmö's mitigation politics as focused on prestigious projects with low accessibility (Holgerson & Malm, 2015) are thus reflected in the city's adaptation politics and climate injustices are prevalent. Specifically, wealthier communities and assets are prioritized over poor or marginalized ones, pre-existing inequalities that interact with climate impacts are under-addressed and planning

processes exclude more vulnerable communities.

4.2. Climate vulnerabilities and coping strategies in Malmö

To more concretely understand these injustices, we investigated the climate impacts that Malmö's most vulnerable communities face and their individual and collective adaptive capacities at a practical and political level. A community's adaptive capacity refers to people's ability to adjust and take direct actions in order to reduce their level of impact due to climate change and to enhance their coping mechanisms in response to climate change (Mccarthy et al., 2001; Zen et al., 2019). Our analysis shows that vulnerable groups in Malmö rely strongly on their adaptive capacity to make up for the city's shortcomings in climate adaptation. However, the ways in which vulnerable communities can politicize Malmö's shortcomings in relation to adaptation are limited.

Urban heat and flooding are the main climate impacts Malmö's vulnerable communities have to cope with. Many citizens live in housing that is insufficiently equipped to protect against urban heat. In response, residents employ basic coping strategies, articulated in an interview with an immigrant couple: 'We opened all the doors and windows of our apartment. We didn't care about privacy; it was too hot inside to be able to sleep.' (Interview 1, Immigrant couple from Syria, Malmö, 2019). Others use cooling methods like air conditioning or fans, but appliances and the electricity they require are not affordable for everyone. Interviews and observations revealed that some people opt to sleep outside rather than without appliances inside. For example, one 25-year-old student chose to sleep outside in a second-hand tent on hot evenings, while an 85-year-old woman sometimes sleeps in her garden. A 38-year-old immigrant woman explained that she came from a hot dry climate but sometimes feels that the heat in Sweden is unbearable. Other individual coping strategies include drinking more water, spending more time by the waterfront or in malls with air-conditioning. Collective coping practices include constructing green walls and shading awnings on the façades of buildings.

As for flooding, low-income areas in Malmö are less at risk from sea level rise compared to high-income locations threatened by storm water surge. However, low-income inhabitants often live in areas with older buildings that face problems as a result of local downpours that the water catchment systems cannot handle. These events often lead to basement flooding and sewage discharge. Moreover, there is a high risk that drinking water is contaminated or disrupted by pipe fractures. Electricity blackouts are also likely to increase due to climate change and the increasing prevalence of extreme weather events such as heavy rainstorms. While green areas are developed by landlords around homes to reduce flooding, some residents still feel that they needed to make up for shortcomings. Measures include the clearing of rainwater drainage pipes, the raising of the doorsill for those living on or below ground floors, and the collective purchase of a water pump to be used in case of flooding.

This exploration of coping strategies among poor and marginalized groups in Malmö is consistent with literature highlighting that climate vulnerability is related to the distribution of wealth and power (Mikulicz, 2018; Thomas et al., 2013). Current weather extremes compound pre-existing inequalities. Inequality is at the root of varying levels of exposure. While our review of climate adaptation in Malmö is not exhaustive, we show that important inequalities persist despite the city's adaptation efforts, leaving disadvantaged groups exposed to climate injustices resulting from unaddressed differential vulnerabilities caused by pre-existing inequalities. Coping strategies can mitigate some impacts, but do not address the root causes of their vulnerability. We summarize these heat- and flooding-related coping strategies in Table 1.

The persistence of such injustices poses a clear need to politicize climate adaptation, especially by making demands for redressing the inequalities that drive, and will be exacerbated by, climate vulnerabilities. The communities in our study, especially in Rosengård and Lindängen, have demanded adaptive measures from the facility

Table 1
Heat- and flood-coping strategies by residents in low-income areas of Malmö.

 Heat coping strategies		Planting green walls
		Installing shading awnings
		Opening windows and doors for cross ventilation
		Staying in malls with air-condition
		Spending more time by the waterfront
		Sleep in the house garden
		Installing air conditions or use fans
 Flooding coping strategies		Clearing of rainwater drainage pipes
		Raising of the doorsill
		Water pump to be used in case of flooding

managers responsible for their buildings. In the cases we documented, residents reported that either they got no response or they were told that it was not possible to adjust heating and cooling systems or do any retrofitting to reduce indoor heat stress. Some asylum seekers considered either writing a joint request addressing inefficient heating in winter or escalating their grievances to a higher authority. However, they ultimately stayed silent out of fear that their complaint might affect their status in the country. They have limited access to the relevant political decision-making processes and because their legal status is perceived to be precarious (e.g. due to growing negative sentiments towards immigrants), they are hesitant to escalate their demands using more public or even contentious methods. We therefore explored whether those with a stronger position in local climate politics could be expected to advocate this cause.

4.3. Climate activism and the challenges of adaptation

Indeed, since Malmö's climate adaptation measures do not sufficiently ensure distributional and procedural climate justice, adaptation could be expected to emerge on the radar of the city's climate movement, which has gained momentum since Fridays for Future (FFF) and Extinction Rebellion (XR) mobilized globally between late 2018 and early 2020. However, our interviews with climate and environmental activists reveal that there is little explicit engagement on adaptation and related local climate injustices. Instead, activism is mostly focused on mitigation, demanding that governments introduce legislation to cut back greenhouse gas emissions and halt fossil fuel projects.

While there was rarely any explicit rejection to focusing on adaptation, we found three main reasons why climate activists largely avoided adaptation. Firstly, XR and FFF (which many representatives of other groups included in our study participated in) primarily urged the government to take stronger action in the face of the climate crisis but avoided making more specific demands, including regarding the need to address local climate justice issues. One FFF organizer explained that:

“As a group, I don't think our mission is to build a sustainable society. Our mission is to make sure that the politicians of today build a sustainable society.”

(Interview 24, Fridays For Future, Malmö, 2020)

Likewise, XR demanded that the city declare a climate emergency without making demands for more specific climate actions – including on adaptation.

Still, some activists had more specific notions of what local climate action should consist of. One of the founders of the local organizing node of XR even lamented the absence of an explicit adaptation focus among climate movements in Malmö, while in fact noting the potential for integrating it:

“I haven't seen any talk of adaptation in the climate movement in Malmö. At a superficial level there is a motto: ‘I don't want to die in a flooded Malmö’ (...). I think that XR has some potential to drive towards adaptation thinking but I haven't seen that process starting yet.”

(Interview 27, XR, Malmö, 2019)

An interviewee from Sweden's largest nature conservation organization even more clearly stressed the need for the climate movement to make demands for appropriate adaptation measures:

“Just as we're demanding to stop the emissions, we should also demand plans for [adaptation] (...) since it's not being done properly.”

(Interview 21, Naturskyddsforeningen, Malmö, 2019)

In sum, while some climate activists explicitly refused to make specific demands, others perceived a need to focus on UCA and even foresaw the possibility for the movement to work on this.

However, such ideas rarely materialized. A second reason is that many climate activists in Malmö refused to contemplate the strategic implications of serious climate disruptions no longer being preventable, because doing so was considered to be demotivating. Instead, they chose to focus on the uplifting effect of mitigation-oriented activism:

“I guess it's very simple. If you're active, if you're doing something, then you're not sitting looking at the figures, the bad, the black horizon. So maybe it's a way of protecting myself from that.”

(Interview 18, Friends of the Earth, Malmö, 2019)

Likewise one XR interviewee indicated that the principle of “bravery” was central to their group, meaning that one continues to do what is right even if the odds of success are unfavorable (Interview 20, XR, Malmö, 2019). Another XR activist explained in more detail that

negative ideas and feelings in relation to climate change were kept out of strategic meetings, delegating them to more informal, care-oriented settings:

“You’re worried for yourself and for your children or your future children. And those feelings are very important. So, we talk about them. But we don’t talk about that as much when we plan things to do within the movement.”

(Interview 19, XR, Malmö, 2019)

Hence, a recurring reason not to engage with questions of adaptation is that it would imply considering scenarios in which mitigation has – at least partially – failed, which are considered to be fatalistic and demotivating. Strategizing instead focuses on the continuation of mitigation-oriented campaigning.

Finally, some respondents saw adaptation as a techno-optimistic excuse for inaction, thus rejecting adaptation as a goal. One activist from the group Fossil Free indicated that:

“There is this sort of iron curtain between the green tech way of looking at the future that we’re going to adapt our way out of the situation by technology and not really mitigating stuff in any powerful way. And the other way, the one of the environmental movement, which is focused on mitigation and very skeptical about technological solutions.”

(Interview 23, Fossil Free Malmö, online, 2019)

These attitudes did not just prevent actions on adaptation but also foreclosed many discussions on this topic, which limited opportunities to unpack questions of adaptation and its relations to local injustices. As acknowledged by one XR activist, this may be a product of the often privileged backgrounds of climate activists in Malmö and of the lack of inclusion of members from vulnerable communities, linking it back to the movement’s reluctance to make specific political demands:

“A problem within XR is that we are focusing too much on emissions and on the natural sciences but not enough on the social collapse we will face before the biological collapse. We are all people who care but we’re also white, middle class, who have the privilege to take action on climate issues and have the time, energy and opportunity to do that, so we need to think about all the people who don’t. I feel that since we are so afraid of taking a political statement we let that stop us from being more inclusive and trying to create the world that we would like to have, because if you have a movement that does not talk about racism, does not talk about sexism and different social issues that are not a part of the climate issues, then we will not mirror the future that we want to see.”

(Interview 29, XR, Malmö, 2019)

As one organizer explained, this lack of diversity and engagement with local justice issues is further reinforced by the isolation of the climate movement from other movements:

“Unfortunately, they don’t interact so much, these worlds; the climate world with the social justice world. At least here in Sweden.”

(Interview 21, Naturskyddsforeningen, Malmö, 2019)

Overall, while climate and environmental activists in Malmö did not reject adaptation entirely, their engagement with the topic remained at best limited and abstract. Interviews tried to tease out whether any of the activists had a more specific understanding of adaptation in the city – e.g. of specific problems or injustices – but hardly any examples were found.

Still, some climate activists engaged with more practical forms of adaptation, such as in local food projects that were seen as increasing resilience in the face of disruptions in global food supply chains. Others explained how they were preparing for climate disruptions at an individual level:

“When I talk with other activists that actually do something and believe in the change that we want to see, they often say, okay, but in parallel with this, I’m trying to figure out how I should prepare for a climate emergency, how I should prepare me and my family for that. And I think everyone in this movement has drinking water in their basement.”

(Interview 19, XR, Malmö, 2019)

Another XR activist took a more communitarian approach to adaptation by pointing out how the organizational skills and mobilizing capacity that XR is building among civil society in the city may play a role beyond the current focus on climate mitigation:

“During trainings we build ‘affinity groups’ for the action but they can also work for a really bad future, like fascist regimes or extreme weather. Many people are not ready yet to hear that but I definitely used that framing in the beginning when we were explaining to people why we need ‘affinity groups’: not just for the action but because we need to get organized.”

(Interview 27, XR, Malmö, 2019)

While taking part in environmental movements may increase participants’ resilience, these groups have shown to be somewhat homogeneous and do not benefit the adaptation needs of the city’s most vulnerable communities. Hence, they demonstrate little awareness of or engagement with specific injustices embedded in the city’s adaptation policy.

4.4. Social justice activism and adaptation in Malmö

To find potentially relevant actors outside the climate movement, we focused on urban activists not explicitly working on climate issues, but relevant to our project because of their engagement with local social justice issues. We found that the community of radical leftist activists associated with the social center Kontrapunkt displayed strategies and practices that we deem relevant for thinking through the role of urban movements in transformational adaptation.

Kontrapunkt started in 2006 as a movement “using culture as a tool for organizing a community” (interview 33, Kontrapunkt, Malmö, 2019). Anti-discrimination, mutual help, and social justice are the guiding principles established by the movement’s founders. Since 2010, inspired by the social centers movement in Europe and by community movements in North and South America, activists have rented a large warehouse and turned it into a social center. Under the stated aim of deepening democracy by taking back the power to the people, they engage in several forms of service provisions, self-organization and political organizing. Through their initiatives, they have initiated anti-gentrification campaigns and solidarity-based work with homeless people, refugees and Roma migrants.

In particular, their contribution has been fundamental to providing relief and support to thousands of refugees, mostly from Syria, who arrived in Malmö in 2015. During that year, about 100.000 people passed through the city (which is the main entry point into Sweden), but national and local authorities lacked a commensurate organizational response. Civil society organizations stepped in to provide immediate help, with Kontrapunkt at the forefront of this effort. Over 135 days, more than 17.000 people were provided with shelter, food, clothing, health care, transportation and counseling, each of these activities funded through various fundraising initiatives.

These events happened in a moment of self-reflection for Kontrapunkt and triggered a crucial realization:

“In august 2015, we left for a weekend in the woods to discuss internal political matters. For the first time since we started, our core group consisted of more people who had a political interest than a cultural interest. We had 3000 square meters in the city, a bus, a

circus tent, all kinds of different kitchen materials, and we were struggling to maintain everything. So, we asked ourselves ‘what are we going to do with all these things?’ And we answered: *we are an infrastructure; things will happen in this world and we’re gonna be ready*. Then we came back on Monday and refugees were walking to us. It was literally crazy. Now I feel and understand what we have been doing, what we have been fighting for, this is why we exist. So definitely this is part of our mission or vision of what we want to do or be in the future.”

(Interview 33, Kontrapunkt, Malmö, 2019, our emphasis)

In this realization, and based on Kontrapunkt's practical engagement, the social center might be able to advocate for more viable city-led climate adaptation strategies. However, the attitude of the Municipality of Malmö towards the self-organized reception of refugees by Kontrapunkt was largely hostile, showing the complexities of building cooperation between grassroots and institutional actors. Nevertheless, this experience reinforced the commitment to enhance Kontrapunkt as a political and social space aimed towards justice, self-organization and autonomy:

“This is often how we describe ourselves, as being an infrastructure for groups, for capacity building, a resource center for people who want to create something or mobilize.”

(Interview 34, Kontrapunkt, Malmö, 2019)

Despite the wide spectrum of activities Kontrapunkt is engaged in, climate concerns appear – at least on the surface – to only tangentially intersect with their work. Kontrapunkt has welcomed XR and FFF activists to use their space for organizing purposes and has supported their actions on the spot, with food, tents and other logistical needs. However, climate justice claims have not been put forward by Kontrapunkt's activists. This should be seen as a result of the focus on practical, social justice-oriented organizing to address the needs of the disenfranchised, rather than as a conscious omission. It is precisely this dimension of practice-oriented and justice-based activism that, in our view, justifies a characterization of Kontrapunkt as an experiment that can be tied to strategies of preparation, disaster response and adaptation to climate breakdown in ways that could foster transformative pathways.

Nonetheless, the climate impacts that already disproportionately affect Malmö's vulnerable communities have not been addressed by Kontrapunkt. Furthermore, its focus on direct social action runs the risk of leaving the policies and political institutions driving urban injustices unchallenged, and playing into the politics of responsabilization (Thörn & Svenberg, 2016). In this sense, our evidence suggests that social justice movements and climate movements are both necessary to politicize the adaptation-related injustices experienced by vulnerable communities. In particular, while direct social action has a capacity to respond to emerging needs in vulnerable communities, and thereby to identify the municipality's shortcomings as well as potential solutions, Malmö's growing climate movement appears to be a prime candidate to build policy-oriented pressure on governments to take up their responsibility to address the identified shortcomings and implement the identified solutions at a more encompassing scale. Thus, given issues of scale, the work of Kontrapunkt can best be seen as part of the puzzle. In our concluding discussion, we reflect on why the puzzle has so far not been completed and how this may be resolved.

5. Concluding discussion

As attention to climate adaptation increases, so too does the observation that it is a deeply political subject with climate justice implications (Eriksen et al., 2015). Literature on transformational adaptation provides one of the main responses to this observation by criticizing the neoliberal, technocentric and fragmented approach in mainstream adaptation and by promoting an approach that addresses the

fundamental societal drivers of climate vulnerability (Pelling, 2010; Zografos et al., 2020). However, similar to debates on sustainability transformations more generally (e.g. Bluwstein, 2021; Scoones et al., 2020), this discussion has remained largely conceptual, especially in relation to cities in Europe (Zografos et al., 2020). We have therefore heeded calls for “enabling approaches” to transformation (Scoones et al., 2020) and proposals to apply a capabilities approach to just adaptation (Schlosberg et al., 2017) by developing an empirically-grounded, actor-centered approach. After all, capabilities approaches do not only define just transformation by creating an enabling environment whereby diverse communities can prosper, but they also underline the importance of identifying the actors – typically political outsiders – who can advance adaptation needs politically. To add empirical rigour to these debates, we focused on the role vulnerable communities, climate movements, and social justice activists can play in politicizing climate adaptation in the Swedish city of Malmö. While previous studies have focused on positive cases (especially outside Europe) where social movements *have* mobilized on UCA (e.g. Bullard & Wright, 2009; Crow, 2014; Dawson, 2017), we contribute to completing the picture by focusing on what *hampers* such mobilization from occurring in cases where primary conditions such as grievances and a mobilization capacity seem present. Malmö presents such a case. Combined with other researchers' positive cases, our case study contributes to a broader picture of what enables *and* blocks mobilization for just and transformational UCA.

Our findings show that Malmö's municipal adaptation politics lack engagement with questions of justice and equity and consequently leave blind spots for the city's most vulnerable social groups – especially regarding urban heat and flooding. These groups respond with small scale, practical coping strategies that fall short of addressing the systemic drivers of their vulnerability. Following classical grievance theory of social movements (Gamson, 1968), we hypothesized that vulnerable communities in Malmö could drive their grievances towards higher political levels but found low capacity in this direction, thus demonstrating the predicted importance of resources (Zald & McCarthy, 2002). Communities of migrants and asylum seekers especially, indicated that their political capacity was limited by their precarious social status, demonstrating the intersectional nature of (in)just adaptation.

As shown by previous studies (e.g. Dawson, 2017), a key condition for politicizing these issues thus seems to be the building of diverse coalitions that include more resourceful collective actors. We have therefore examined whether Malmö's increasingly active climate movement – which at least in part rallies around principles of climate justice – has the potential to politicize vulnerability and adaptation. We found that even though climate activists were aware of present and inevitable climate impacts in their city, such impacts hardly featured in their campaigning. We detected various reasons for this, including an association of adaptation with fatalism and a narrative that frames climate activism as being about ensuring that the state and the local authorities take up their role of tackling climate change without specifying how – be that through mitigation or adaptation. This lack of specificity precluded engagement with transformational UCA. Furthermore, despite the fact that many climate groups found it difficult to enhance internal diversity (cf. Berglund & Schmidt, 2020), vulnerable groups who experienced adaptation-related injustices remained excluded from setting the movement's agenda. Hence, for climate movements to become relevant political allies, both their goal-framing and their inclusivity strategies must be addressed.

Previous studies also indicate the importance of urban social justice movements and we accordingly explored their role as potential brokers in these coalitions, as well as their role in addressing transformational adaptation more directly. We found that there is an untapped capacity in urban social justice groups like Kontrapunkt to become relevant actors in coalitions with the potential to strengthen, complement and expand access for disadvantaged communities to political answers to climate disruptions. We perceived a particular capacity for social centers like

Kontrapunkt to organize direct social action given their adherence to justice values, their city-wide networks with civil society and the disenfranchised, and their logistical and organizational skills. However, there is a risk that direct social action remains at the level of coping and individual responses. Indeed, to contribute to shifting urban adaptation politics more generally from a techno-managerial to a transformational project, demands-based political campaigning is vital too (Mikulewicz, 2018). Here, the role of social justice activists as intermediaries between vulnerable communities and climate movements could be crucial. Social centers like Kontrapunkt could play a pivotal yet so far overlooked role in providing the *social infrastructure of transformative adaptation*. As social and physical spaces for addressing climate vulnerabilities through direct social action, and reflecting more general depictions of social centers as political incubators (Nicholls & Uitermark, 2017), social infrastructure alongside climate movements could provide the space and resources to develop a political understanding of adaptation while building outsider coalitions able to define and advance transformative adaptation.

The factors preventing the politicization of UCA in Malmö should thus not be seen as a result of the absence of key conditions for action on UCA – including grievances and injustices, resourceful social movements and social centers where diverse coalitions can be built – but as an effect of weak coordination capacity between different instances of activism and the lack of alliances under the banner of urban climate justice between the actual victims of adaptation injustices and the activist groups who could support the politicization of those grievances. This underlines the relevance of literature on social movement coalitions for just and transformational UCA (Wang et al., 2018) and on the convergence of movements to influence broader processes of climate governance (Tramel, 2018). Increasing this capacity could simply be a matter of time and of climate disruptions becoming more intense and salient. However, urgency and disruptions do not automatically equate to political campaigning (cf. Cohen, 2021). In some cases, they may even undermine the resource basis for campaigning (Zald & McCarthy, 2002).

There is a clear need for skillful political organizers who can build the necessary links described. We believe a social center like Kontrapunkt could play this role, but there are always multiple issues competing for attention. Building these links will also depend on the development of appropriate narratives. In particular, recent research indicates that climate movements struggle to engage with climate adaptation because they lack the narratives to motivate such action (de Moor, 2021). A key issue is that a shift of focus from mitigation to adaptation has been seen as the abandonment of climate justice aims, as these remain framed in global terms of preventing dangerous climate change. Narratives that *additionally* recognize local dimensions of climate justice, such as that of ‘the climate-just city’ (Steele et al., 2018), could motivate the inclusion of transformational UCA as a goal. Finally, action is needed to empower the political position of vulnerable communities themselves, who often perceive their societal position as being too weak to raise their voice. Climate movements and social centers may support these communities in broad coalitions, but following the enabling and capabilities approach (Schlosberg et al., 2017; Scoones et al., 2020), only the ability of these communities to define their own adaptive needs can lead to just adaptation (Henrique & Tschakert, 2021; Mikulewicz, 2018). Combined, our findings reveal some of the limits to transformational adaptation from an actor-centered point of view – identifying spaces, organizers, narratives and inclusion as key areas of attention for future research and improvement in the city.

From our interviews with civil servants, we found that local governments may lack a justice perspective in relation to local climate adaptation. Contradicting their indication that there is little interest within civil society to participate in adaptation planning, our findings suggest that vulnerable communities relate numerous adaptive measures to politics. Civil servants insufficiently recognize the importance of enabling and capabilities approaches to provide space to vulnerable communities to develop demands in relation to adaptation (Schlosberg

et al., 2017; Scoones et al., 2020). Instead, authorities apply top-down measures that do not align with the needs of the most vulnerable communities. However, we found an interest within local governments in involving communities in adaptation planning. We therefore recommend that local governments recognize and interact with potential social infrastructure for transformational adaptation, like Kontrapunkt, both by harnessing their knowledge of local vulnerabilities and by providing support to their grassroots solidarity work. While it would be naive to expect such coalitions to have a direct policy influence, governments with a genuine justice interest in their local climate policies may find it pays off to advance the potential of such outsider coalitions, as doing so will be vital to turn transformational aspirations many governments claim to have into genuine transformational change.

In sum, we have sought to add empirical rigour to discussions on sustainability transformations by applying an actor-centered capabilities approach to understanding which actors could define and advance just and transformational adaptation. While previous studies have usefully depicted cases where political outsiders have indeed politicized UCA, our research addressed the observation that – at least in the European context – such mobilizations have remained rare, and that UCA has generally not been transformative. We therefore focused on explaining the absence of mobilization on UCA in the Swedish city of Malmö, which we argue represents a case where mobilization is most likely to have occurred, thus allowing us to identify typically overlooked conditions that can hamper mobilization even when key conditions for mobilization seem met. While generalizations from this single case alone are not advisable, a key conclusion of our research is that transformational adaptation depends not only on the presence of discrete conditions for mobilization, but in particular on mechanisms that combine various capacities for just adaptation activism into actual campaigning. We have underlined the importance of spaces that have the potential to become social infrastructure for transformational adaptation and highlighted how organizers can contribute to building inclusive coalitions able to identify, address and politicize adaptation-related injustices. While we have proposed various enabling factors, including local climate justice narratives and the inclusion of marginalized groups in climate movements, future research is clearly needed to verify and possibly expand our suggestions.

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CRedit authorship contribution statement

Salvatore Paolo De Rosa: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Writing – original draft, Writing – review & editing. **Joost de Moor:** Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Writing – original draft, Writing – review & editing. **Marwa Dabaieh:** Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Visualization, Writing – original draft.

Declaration of competing interest

None.

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Appendix A. Supplementary data

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