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Research article

The role of goal-setting in urban climate governance

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ABSTRACT

This article argues that goal-setting is an important, albeit understudied, part of urban climate governance scholarship. By using goal-setting theory, the article introduces concepts and perspectives capable of shedding new light on the political aspect of cities' climate strategic work. Climate goal-setting is studied within a wider urban governance context, as a way to activate a multitude of internal and external actors for shared goals and purposes. The article analyses levels of ambiguities of urban climate goals, and in light of different politico-institutional settings it explores possible contextual implications for cities' climate governance.

Through a comparative analysis of four cities – Copenhagen, Cape Town, Oslo and Gothenburg, the article identifies two distinct approaches. An *inclusive approach* containing ambiguous all-encompassing climate goals, consensus-oriented political decision-making, a broad administrative entity with weak mandate and close and long-term stakeholder collaboration. An *efficiency-oriented approach* including clear and problem focused climate goals, instrumental political decision-making, a special-purpose administrative entity with a wide and clear mandate and targeted and temporary stakeholder collaboration. The article concludes by posing some key questions that should guide further research on the exact relationship between these variables.

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Introduction

Goal-oriented course of action is a central dimension of any public policy and governance strategy dealing with complex or significant public problems (Latham and Locke 2006). However, how the formulation and attainment of goals may work to mobilise, direct and stimulate climate change action is rarely addressed in urban climate governance research, with some notable exceptions (e.g. Diaz-Pont 2020; Gordon 2018; Göpfert et al., 2019). The literature touches upon urban climate goals indirectly, and mostly by pointing to the gap between intentions and practices in current urban governance (Bulkeley and Betsill 2013; van der Heijden 2019). The high level of ambitions found in an increasing number of cities have received massive attention in the literature, but these are seldom seen as real intentions and rather explained as an

outcome of practical and problem oriented-, market- or multilevel factors (van der Heijden 2018). Thus, despite the existence of ambitious climate action in many cities, studies aiming to deconstruct and conceptualize goal-setting in urban climate governance in itself, are rare.

This gap in the urban climate governance literature is addressed in this paper through a closer and more nuanced examination of what Hughes (2017) characterizes as the political dimension of urban climate governance, in which goal-setting is an intrinsic part. Climate goals are keys to understand and identify mechanisms and strategies employed to achieve commitment to policies, as well as ensure implementation. They may motivate innovative action and interaction within the political-administrative apparatus, the business community, citizens as well as other cities and networks. In doing so, ambitious goals can contribute to disrupt carbon lock-ins and set the city on a pathway towards deep decarbonisation and climate transformation (Bernstein and Hoffmann 2018; Latham and Locke 2006; Rainey and Jung, 2014; Smith et al., 2010).

The article draws on theories of goal-setting with an emphasis on the level of ambiguity vs. clarity as a key feature, which enables

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us to compare and characterize different forms of climate goals and thereby open for a deeper understanding of the role of goal-setting in urban climate governance (Abdallah and Langley 2014; Rainey and Jung 2014). Our starting point is an observed divergence in the level of ambiguity of cities' climate goals. This triggered a curiosity about the intended and unintended implications of goal-setting, and prompted us to investigate how climate goals' diverse level of ambiguity may inform the institutionalization of climate policies in the city. Here, institutionalization is understood as the operationalization of climate goals into norms, procedures, and routines, as well as organizational structures and internal and external collaborative arenas, which may strengthen legitimacy, foster stability, enhance predictability, and support the inclusion of decarbonisation and climate transformation as an integral part of urban governance (Anguelovski and Carmin 2011; Göpfert et al., 2019:3, Hajer 1995). The article uses both theoretical and empirical findings to discuss grades of ambiguities and the possible implications these might have for cities' climate governance.

The analysis is based on a comparative approach, studying the formulation and institutionalization of climate goals in the cities of Oslo, Copenhagen, Cape Town and Gothenburg. Each of them have different, yet innovative goals and policies towards sustainable, low carbon society.

In the following, the theoretical framework is introduced and discussed in the context of urban climate governance. We then proceed with a comparison of goal-setting processes between the four city cases. The comparative analysis provides a deeper understanding of the cities' goals and institutional response in terms of procedures, capacity building, and organizational development. It also sheds light on how the cities mobilise various relevant and concerned actors inside and outside their administrative apparatus in order to strengthen their capability to implement climate measures. Being explorative in nature, the article ends by identifying promising paths for future research.

Goal-setting in the context of urban climate governance

The act of goal-setting is a form of performance proficiency that indicates what the organisation wish to attain, usually within a specified time period (Latham and Locke 2006:332). It is a discrepancy-creating process in that it instigates constructive discontent with present performance that, in turn, spurs actors to increase their efforts or change their strategy to secure a given outcome. Goal-setting theory focuses on the goals' characteristics and the effect and efficiency of different forms of goals. A key point is that the type and quality of the goal, in terms of clarity and complexity, matters for subsequent performance of relevant and concerned actors (Locke and Latham 2002). Public administration theory often sees goal-setting within the realms of a specific organizational unit. In a municipal organisation, and even more in a broader urban setting, the relation between goal-setting and goal attainment is less straight-forward. The goals enter a highly complex political organisation with a multitude of aims, actors, values and institutions, as well as multifaceted expectations from the policy environment within which they are to be conceived and acted upon (Mahoney and Thelen 2010; van der Heijden 2011, Yang 2015).

An established insight from organisational theory is that while organizations are intendedly rational, they frequently act on incomplete or incorrect information without being aware of all of their alternatives (March and Olsen, 1975:148). Moreover, they operate in a landscape where there is inconsistent and conflicting objectives. This is more so in public organizations than in private companies (Rainey and Jung, 2010). The problems they are set to solve, such as climate change, are often contested, and ridden with

scientific uncertainty. Thus, problem solving are very likely to produce unintended (and unwanted) consequences that may very well exacerbate other problems. Furthermore, decision-makers act under severe time-constraints that limit the number of issues a political system can deal with at any given point in time (Zohlnhöfer and Rüb 2016). This has created an attention to the role of *goal ambiguity* as a mechanism to navigate in an environment with competing interests.

On the one hand, goal ambiguity may be seen as a lack of clarity, with potentially negative effects on public administration (Rainey and Jung 2010). Organizational studies have found that specific and challenging, yet acceptable, goals will lead to higher levels of production among individuals and groups, than vague goals (Rainey and Jung 2014:76). However, too specific and clear goals may produce unintended consequences without conscious implementation and quality control. Performance schemes may redirect activities towards rewarded actions at the expense of important activities that goes under the radar of the system (Rainey and Jung 2014:74–75). Furthermore, highly specific goals may antagonize groups with competing interests.

On the other hand, public organizations need to mobilise a diversity of stakeholders. This pushes goal formulation towards ambiguity that can resonate with the values and wishes of multiple stakeholders and enable meaningful dialogue among them (Abdallah and Langley 2014:237, Noordegraaf and Abma 2003). Additionally, ambiguity may stimulate ideational, technological and/or organisational innovation, as it paves the way for interpretative leeway and collaboration across former organisational or sectoral divides (Chun and Rainey 2005). However, ambiguity may have detrimental effects by generating repetitive cycles of decision making without action, since expectations are unclear (Abdallah and Langley 2014:239). This may result in low commitment to attainment of the goal (Rainey and Jung 2014).

In sum, the goal-setting literature points to the importance of striking the right balance between goals as a (clear enough) guide for future action, and the need to offer inspiring and inclusive statements of values, goals and purposes capable of mobilizing a diversity of stakeholders (Abdallah and Langley 2014:237). By focusing on the ambiguity of climate goals, we draw attention to an inherent tension in such goals: the need for efficient and goal-effective policy-making to meet the pressing 1, 5° target versus the need for inclusive policy-making capable of stimulating action from a broad set of actors. Climate goal-setting is thus inherently a political endeavour.

In order to better understand the unique characteristic of urban climate goals, we need to explore them in the local politico-institutional context. Political institutions inform the goal-setting strength of local political leaders, both enabling and hampering leadership performance (Røiseland et al., 2020:14). In this regard, the organization of the city council – its size and number of committees – and the organization of the executive branch of local government, may make certain forms of goal-setting more applicable, and motivate certain ways of operationalizing these goals into institutional practices. However, internal goal-setting, operationalization and institutionalization is not enough. The broad scope of climate change where no actor has the capability to resolve the issues on their own, means that cities can only succeed through collective efforts (Ostrom, 2010; Wang et al., 2014). They are thus dependent on motivating, directing and actively engaging external actors. There is a large literature on collaborative governance that bring actors together for joint, complex problem solving (e.g. Ansell and Gash 2018; Edelenbos et al., 2010; Goldsmith and Eggers 2004; Innes and Booher, 2010; Torfing et al., 2016). This article relates to this research by looking not only on the goal-setting process itself, but also on goals as an instrument or a platform for mobilizing

Table 1
Four types of ambiguity.

Ambiguities	High	Low
Expansiveness	Diverse interpretations and possible scope of actions	Limited diversity in interpretations and possible scope of actions
Evaluation	Weak/unclear definitions and lack of quantifiable targets as basis for monitoring	Strong/clarity in definitions and quantifiable targets as basis for monitoring
Prioritization	Multiple goals and unclear internal relationship and prioritization	Limited set of goals and clear internal relationship and prioritization

multiple stakeholders for some shared, collective purpose. This broadening of the scope of traditional goal-setting theory is consistent with public administrative research in general, where the collective aspects of governance receive increasingly more attention (Crosby and Bryson 2018; Strockosh and Osborne, 2020; Yang, 2015).

Key dimensions of goal ambiguity

Goal ambiguity may take several forms. Here, we will concentrate on three relevant forms of ambiguity inspired by Rainey and Jung (2014:83–84) and Abdallah and Langley (2012:247–249). Table 1 summarizes these ambiguities and dichotomises them into two levels, high and low, where low ambiguity resembles clarity. Each form of ambiguity is elaborated below.

1. A goal's level of *expansiveness* denotes the interpretative leeway and the potential number of actions it prescribes. High ambiguity exists when the climate goal open for a diverse set of interpretations and possible actions. Low ambiguity exists when the goal is easy to understand and points towards identified actions.
2. The possibility for *evaluation* points to the nature of definitions and targets and whether they enable monitoring and evaluation of progress. High ambiguity exists if definitions are vague or non-existing, and there are few or no numerical targets. Low ambiguity exists when precise definitions and numerical targets are given.
3. The degree of *prioritization* between multiple goals. High ambiguity exists when the city has multiple goals and where their internal relationship and prioritization is unclear. Low ambiguity exists when there is a clear ranking of potentially competing goals.

This set of ambiguity variables helps us gain a deeper understanding of each city's climate goals. Each of them are explored further below in light of the four cities' goal-setting and institutionalization strategies.

Research approach

The level of ambiguity is studied in the contexts of Oslo, Copenhagen, Cape Town and Gothenburg's formulation and institutionalization of climate goals. A multiple case-study design enables understanding of variations across contexts (Yin 2017). We apply a *relational approach* to case studies, where cities are selected based on their ability to pose interesting questions to one another (Ward 2010). In this regard, we acknowledge the challenges of using idealised most similar/most different logic in studies of urban policy making (Pierre 2005). Looking at the cities from a global angle, the three Scandinavian cases open for comparison of climate governance in cities with similar socio-economic and politico-institutional contexts (Esping-Andersen 1990; Nadin and Stead 2013), with Cape Town providing insights to policy making in a different setting. However, upon closer inspection, there are also clear differences between the Scandinavian cities in terms of urban

context, policy making and institutional set-up (Hofstad 2013; Hofstad and Vedeld 2020). Moreover, there are similarities between the four cities that enable us to move beyond the North-South dichotomy. As capitals (Copenhagen and Oslo) and/or significant regional capitals (Gothenburg and Cape Town), the four cities hold a unique economic and politico-institutional position in their respective countries. At the same time, they may be considered among the global frontrunners in pushing forward the climate agenda, both locally and internationally. This is not least manifested through their active participation in different global climate networks together with other climate-ambitious cities (e.g. C40, Eurocities, CNCA, and ICLEI). However, the unique context of each city may lead to varied responses in terms of the goal formulation itself, and its institutionalization into norms, procedures, organizations and collaborative efforts. Comparing these responses expands our knowledge on the conditions for, and implications of, goal-setting as a crucial part of urban climate governance.

Methods and empirical data

Several data sources have been used for this paper. First, we have conducted document analysis of municipal plans and strategies, policy documents and reports. Key documents were the cities' climate strategies, with other documents serving to substantiate central aspects of the strategies and to illuminate how the goals have been institutionalized. Second, we carried out interviews with previous and present strategic leaders and managers, to better understand the climate goals and strategies of each city. All interviews were carried out on basis of the same semi-structured interview guide. The selection of interviewees were based on a mix of strategic sampling based on work title and position and the snow-ball method as we gained new knowledge through our fieldworks. The informants included both politicians and administrative representatives at different levels of government involved in formulating and/or implementing climate goals. To facilitate comparison between the four cases, emphasis was placed on interviewing similar type of informants in all case cities, but number and type varies due to research capacity and other concerns.¹ In total, the data material consists of 94 informants. The interviews lasted approximately one to 2 h, focusing on the interviewees' perspectives and memory regarding the topic. All interviews were audio-taped and then transcribed and coded according to the same code-tree.

Goal formulation and institutionalization in the four cities

This section starts by presenting each city's politico-institutional context as an important factor for understanding the climate goal-setting of the cities. This is followed by a presentation of each city's

¹ The fieldwork in Cape Town was delayed due to the Covid-19 pandemic and the data consists of a significantly smaller sample of interviews than the other cases. This is compensated for by drawing not only on new interview data (see Table 2), but also on findings from ClimWays, an earlier project on climate urban governance in Cape Town lead by team members from NIBR, OsloMet (Scott et al., 2019).

Table 2
Empirical overview, data material per city.

	Copenhagen	Gothenburg	Oslo	Cape Town
Key documents	- Copenhagen Climate Plan (2009) - Climate Strategy (2012) - Climate Roadmap 2017–2020 (2017) - Annual Report 2016	- Climate Programme (2014a) - Traffic Analysis (2014b) - Evaluation of the Environmental Administration (2018)	- City Government platform (2019) - Climate Strategy - Climate Budget - Various governance measures (City of Oslo, 2018a,b, 2020a, 2019a,b, 2017, 2020b,c)	- Climate Change Policy (2017a) - State of Cape Town Report (2016) - Energy 2040 Vision (2017b)
Interviews	24	20	48	4 (22) ^a

^a Due to delayed data collection in Cape Town (covid-19 travel restrictions), the data material consists of four new interviews plus input from a workshop September 18, 2020, where city and academia representatives discussed the revision of Cape Town's climate strategy (22 participants), in combination with document analysis and input from former research (Scott et al. 2019).

climate goals and their institutional operationalization internally and externally through administrative capacity building and mobilization of stakeholders.

Institutional context: comparing the political system of the cities

In general, the cities' local councils are composed according to proportionate representation. The seats are distributed among the political parties according to their share of the total number of votes in the election (but often corrected by a lower limit for representation). The comparison of the cities' political system shows that they differ greatly in the number of representatives and committees, as well as in their selected model for the day to day execution of policies (see Table 3). Of interest here is how these factors may condition the cities' goal-setting and institutionalization.

As illustrated by Table 3, Copenhagen and Oslo have comparatively smaller city councils than Gothenburg and especially Cape Town. Likewise, Copenhagen and Oslo have fewer political committees compared to Cape Town and Gothenburg. Another interesting and divergent element is the representation of ward councilors in Cape Town's city council. These councilors are elected first-by-the-post voting in their respective wards, in contrast to the proportional councilors from party lists. As such, ward councilors are perceived to more strongly represent all citizens from their ward.² In sum, the political system in Oslo and Copenhagen seems to emphasize efficiency with a slimmer political representation than the other two. The models of Gothenburg and Cape Town place more weight on representativeness, reflected by their far more extensive political committees and Cape Town's ward-based system.

If we turn to the organization of the executive part of the cities' political systems, this diversity in institutional pattern becomes even clearer. The cities can be placed on a continuum ranging from strong and efficiency-oriented to more inclusive-oriented and conditioned executive powers. Oslo, with its Cabinet Government Model, represents the strong end of the axis (Goldsmith and Larsen 2004). A city government consisting of nine members, a governing mayor and eight vice mayors, governs on basis of political support from a majority in the city council. Each vice-mayor makes political proposals to the city council and is in charge of implementing policies within their designated policy area. The crux of this model is that the city government (cabinet) has a wide mandate for taking

decisions as long as they are based in adopted strategies – the mayors need not consult the local council. Thus, the level of consensus is potentially weak. Cape Town has corresponding strong executive powers through its Executive Mayoral System. The Mayor and the appointed Mayoral committee have been delegated executive powers (some through legislations and others as delegated by the city council) and manage the governing of the city through designated portfolio committees. Next in line is Copenhagen with an Intermediate Government System where a Lord Mayor and six Mayors are members of the 13 member strong finance committee in charge of all strategic decisions (and headed by the Lord Mayor) (Hansen et al., 2020). Each mayor heads a political committee and is responsible for implementation within his/hers designated area. The Mayors are more closely committed to the proportionately represented committees than in Oslo and Cape Town, and this conditions the executive power and draws Copenhagen more towards consensus. Gothenburg represents a city with the clearest emphasis on consensus and representativeness with clear restrictions on the executive power. They have a so-called Council-Manager System, where political leadership is distributed between the Mayor and the Chief executive officer, as well as the proportionally elected committees and administrative departments – calling for a process of collective decision making and bargaining between these actors (Goldsmith and Larsen 2004:129).

Of interest here is the role that the cities' political system plays for their climate goal-setting. Roughly speaking, one would expect that the institutional set-up makes Oslo more prone to weight efficiency over inclusiveness when setting their goals, whereas the broadness of Gothenburg's political system points towards inclusiveness over efficiency. Cape Town and Copenhagen hold a middle position between the two. The question is whether these tendencies are supported when looking into the level of ambiguity of their climate goals and the subsequent institutionalization of these goals in urban governance.

Formulation and institutionalization of climate goals

Table 4 summarizes the content of climate goals, and how they have been operationalised and institutionalized into procedures and dedicated organisational entities, and how policies are developed through interaction and collaboration with external actors locally and internationally.

The city of Oslo's climate goal is to reduce CO₂- emissions by 65 percent by 2025 and by 95 percent by 2030 (City of Oslo 2020; City Government, 2019). Through a mix of measures, the city seeks to secure a close link between the goal and its institutionalization organizationally (a strong Climate Agency), procedurally (Climate Budget, letters of assignment to agencies), financially (procurement rules, climate fund, toll ring), technologically (clean construction, electric buses, carbon capture and storage), regulatory (climate criteria for planning, reduction in parking), and collaboratively (city-

² The broad level of representation and inclusion in Cape Town reflects two contextual dimensions. Firstly, the model of representative democracy is a combination of party representation and area-based representation through ward councilors. While they all are representing party structures, ward councilors are also assigned a key mediating role between the city and the community from which they are elected. Secondly, the relatively large number reflect that the City of Cape Town is a city of ca four million people, and the municipality is a result of the merging of several municipalities into one large metropolitan municipality in 2000.

Table 3
The political system of the cities.

Cities	Oslo	Copenhagen	Cape Town	Gothenburg
Number of representatives in city council	59	55	231 ^a	81
Number of standing political committees	6	7	19	17
Political execution model	Cabinet Government Model	Intermediate Government System	Executive Mayoral System	Council-Manager System

^a Among the 231 there are 115 proportionally elected representatives and 116 ward councilors.

Table 4
Goal-setting and institutionalization.

Each city's goal-setting and institutionalization	Oslo	Copenhagen	Cape Town	Gothenburg
Climate goal(s)	<i>To reduce CO₂ emissions by 65 percent by 2025, and by 95 percent by 2030</i>	<i>In 2025, Copenhagen is the world's first CO₂ neutral capital</i>	<i>To become a city that is climate resilient, resource efficient and lower carbon, in order to enable sustainable and inclusive economic and social development, and environmental sustainability'</i>	<i>... a sustainable and fair emission of greenhouse gases by 2050 (operationalised as 1,9 tons of CO₂-equivalents per inhabitants per year)</i>
Procedures of operationalization and evaluation	Climate budget setting goals for CO ₂ emissions per sector, procedures for monitoring and reporting three times a year, development of climate indicators	Annual climate account monitors sources of CO ₂ emissions distributed per sector	Some Quantified strategic objectives without clear procedures for evaluation	Quantified strategic objectives without clear procedures for evaluation
Dedicated administrative entity	Special-purpose Climate Agency with cross level and cross sector wide mandate (30 employees)	Small Climate Secretariat within the Technical and Environmental Administration, 10–12 employees	Environmental Management Department with a broad environmental, cultural, social and planning oriented focus	Environmental Administration with a broad environmental and public health oriented focus
Engagement of external actors	Business partnership, project-based collaboration, input seminars including stakeholders, international network engagement as an integrated part of climate governance	Project-based collaboration with The Utility 'HOFOR'. Business innovation partnership with neighbouring municipalities (Gate 21, 60 employees) and engagement and leadership role in international networks	CityLab programme, Climate Think Tank, Cape Town Climate Change Coalition, extensive participation in international networks	Gothenburg Climate Partnership activating broad set of local actors, international networks and collaboration
Main approach	"CO ₂ fixation"	"Green innovation and growth"	"Just and sustainable"	"Sustainable and fair"

initiated Business for Climate and bottom-up initiated platforms) (City of Oslo 2017, 2018a,b, City of Oslo, 2019a,b,c,d, City of Oslo 2020). The goal drives policies towards the largest and easiest calculable emitters, what may be characterized as a "CO₂ fixed" approach, in combination with a broad and specified governance framework that, in sum, secures predictable expectations to relevant public and private actors.

According to the ruling coalition, the goal formulation and its subsequent institutionalization builds on two distinct elements:

Point one, it should be a clean climate measure that could not be manipulated, it should be measured in tons of CO₂, no nonsense about quotas or reference paths or other things. It should be easy to understand.

Point two, to make a governance system that avoid fragmentation by clarifying and adopting in the city council what measures to be implemented and who is responsible for implementing them. Thus, to incorporate it into the entire management of the municipality (Position politician A).

This strategy seeks to minimize the gap between goals and implementation and has in general received broad political backing. The overarching idea is that "... Climate measures will not be carried out elsewhere, at another time, and by someone else, but by us here and now" (City Government 2019:3).

Copenhagen aims to be climate neutral by 2025 (City of Copenhagen, 2012; City of Copenhagen, 2017). The goal originates from a kick-off meeting with professional stakeholders in 2006 as a

preparation to the UN climate conference (COP 15) in 2009 hosted by the city. This goal was acknowledged among politicians and administrative leaders as being easy to understand and communicate internally as well as externally. The core concepts in the strategy are 'CO₂ neutrality by 2025', 'green growth' and 'liveability'. Due to a strong CO₂ focus in the strategy, attention is given to the largest source of emissions and to develop collaboration with the public utility HOFOR in charge of conversion of power stations from being fossil fuelled to biomass fuelled. Other external partnerships are established and mainly handled by Gate 21, a triple helix organisation for green solutions and green growth in Greater Copenhagen.

A climate secretariat with about ten employees was set up in 2010 and given the overall responsibility for coordination, planning, project management and annual performance measuring in order to close the gap between the CO₂ neutrality goal and the ongoing implementation of climate projects. A key role of the climate secretariat has been to measure progress in climate initiatives and projects conducted primarily by public-private partnerships. Their strategy also includes engagement of stakeholders at the local, regional and international level. Among others, to qualify strategic goals outlined by the secretariat, professionals and experts were engaged in an intensive, three month long involvement to come up with ideas to improve the projects. This produced results beyond the ideas conveyed:

This paved ways for a number of contacts to some of the most central business actors, and it benefitted the process in particular in the realization phase (administrative leader).

Thus, engagement of the private sector to solve acute problems and develop new technologies play a key role in Copenhagen's climate strategy in concert with international engagement.

Cape Town emphasises the critical link between climate change and socio-economic inequality in their broader vision 'to become a city that is climate resilient, resource efficient and lower carbon, in order to enable sustainable and inclusive economic and social development, and environmental sustainability' (City of Cape Town 2017a: 18). This broad and long-term goal is combined with more targeted aims, especially on energy transition (City of Cape Town 2017a, b). The city has also committed to become carbon neutral by 2050. A challenge is that the city lacks instruments to calculate and monitor the city's progress. And that the broader transformations they aim for must happen in sectors beyond the city's jurisdiction (City of Cape Town 2020a). Most notable is that the city's energy infrastructure is controlled by a national body. Furthermore, the administrative entity responsible for implementation, the Environmental Management Department, has a broad mandate. They follow '... a holistic approach to sustainability and (...) managing our environment in a way that enhances economic opportunities and social wellbeing' (City of Cape Town 2020b). A significant human resource is found in actors outside the administrative apparatus of the city, and the policies and strategies emphasize the importance of collaboration with higher spheres of government, business, academia and civil society to reach their objectives (City of Cape Town 2016, 2017a, b; 2020a). Two notable platforms for facilitating such collaboration have been the Climate Change Think Tank and the Cape Town Climate Change Coalition, as well as a number of international networks. However, the implementation of innovative climate work has been constrained by shifting political leadership and commitments, and restructuring of the city's organizations (cf. Scott et al., 2019).

Gothenburg states that by 2050 the municipality is to have 'a sustainable and just level of greenhouse-gas emissions' (City of Gothenburg 2014a:23). What characterizes the city's approach to urban climate governance is, firstly, the inclusion of equity in its overall goal. Secondly, Gothenburg's strategy considers not only direct emissions, but also indirect emissions (City of Gothenburg 2014). Thirdly, in a similar vein, the city includes actions aimed towards citizens' consumption, aiming to stimulate climate friendly attitudes (ibid). Overall, Gothenburg's approach is thus broad and progressive. A number of strategies and quantified strategic objectives have been established (City of Gothenburg, 2014a,b). In practice, however, this chain of more operative goals is not supported by clear expectations, carrots and sticks, and monitoring of progress. As noted by a municipal officer on the use of policy measures: '[T]here were more carrots than sticks. That's how you get politics passed'. And the process of establishing the goals seems also to be somewhat detached from the steering systems. As noted by a municipal officer:

'[W]hen Al Gore showed up everywhere, [cities] started to compete as if it was an auction: "We are going to have 30%". "Yes, but we will have 35%". "We will have 40". One did not kind of say, "And how will we manage to do that?"

The lack of implementation instruments to actually pursue goal attainment through action is reported by many informants and an internal evaluation (City of Gothenburg 2018). The broadly oriented Environmental Administration of Gothenburg has been allocated a facilitating role, but has limited mandate and capacity and few concrete governing instruments and measures to support them in performing this role. A municipal officer noted the following on the boundaries of the environmental agency mandate:

'We as an agency cannot say to another agency [not acting in accordance to the environmental goals]; "You must do this and that" (...) And our politicians cannot say to their politicians that "You must do this and that" – because we are kind of on the same level.

Ultimately, Gothenburg seems to be characterised by ambitious and progressive plans and goals, but lacks devolved administrative capabilities for implementation of effective climate mitigation measures (City of Gothenburg 2018). Nevertheless, external actors are widely and broadly engaged through a local sustainability partnership, and the city takes part in several international networks.

Assessing the level of goal ambiguity

Goal ambiguity in each city is assessed in qualitative terms from high via middle to low levels of expansiveness, evaluative opportunities, prioritization and innovation. The basis for the assessment is explained below and summarized in Table 5.

The backbone of Oslo's climate engagement is decarbonisation through a relatively CO₂ fixed approach, guided by a clearly formulated goal to cut CO₂ emissions by 95 percent in 2030. Cuts in CO₂ emissions are to be taken here, today, and not elsewhere. The expansiveness and interpretative leeway of this goal and related policy guidance is as such low. The goal draws up a clear and predictable development path for the municipal administration, business community and citizens. However, the goal is not very inclusive. Those who wish to maintain the status quo or business-as-usual strategy cannot read themselves into the goal. On the other hand, the clarity of the goal simplifies decision making for concerned actors, as the city's priority is predictable. The city demands new ideas, experiments and solutions in support of zero CO₂ emissions. The level of ambiguity in terms of priority is therefore low. This has also opened for implementation of effective, but typically politically contested, measures. The higher cost and reduced access to car parking in the central areas of Oslo in recent years are examples of such measures. The ambiguity of calculation in assessing progress is also low due to the city's expansion of the municipal budget to include climate measures and the ensuing reporting, development of indicators and monitoring schemes of the status of CO₂ reductions. The set-up of the climate Agency as a key driving force to follow through on policy progress and measures reinforces this monitoring strictness.

Copenhagen's aim of being carbon neutral by 2025 is a seemingly clear goal, yet upon closer inspection its level of expansiveness in terms of who is a relevant and concerned actor is more ambiguous. What does this goal imply exactly? Carbon neutrality can be defined as 'making or resulting in no net release of carbon dioxide into the atmosphere' (Lexico 2019). In practice, related to emission sources from a city, it involves three basic actions. First, calculating the total climate-damaging carbon emissions from activities of the city thereby providing an overview over key sources of CO₂ emissions (Ziegler 2016). Second, reducing, to develop measures capable of cutting CO₂ emissions (ibid). Third, offsetting, to adopt measures that balances the city's remaining CO₂ emissions by purchasing a

Table 5
Level of goal ambiguity: High, middle, low.

Ambiguities	Oslo	Copenhagen	Cape Town	Gothenburg
Expansiveness	Low	Middle	High	High
Evaluation	Low	Low	High	High
Prioritization	Low	Middle	High	High

carbon offset outside the boundaries of the city (Ziegler, 2016). Examples of carbon offsets are planting of trees, or investing in green technologies such as solar or wind power (ibid). The strength of the carbon neutrality goal is that a plurality of actors can adhere to the aim. Engagement may emerge both among the moderate forces who may put weight on offsetting (balancing continuation of CO₂ emission actions and renewable energy expansion) in order to be able to continue their fossil-fuel based activities. But it can also resonate with the more radical forces interested in actually reducing both direct and indirect CO₂ emissions. This middle level of ambiguity is combined with low ambiguity/clarity of the city's *evaluation* criteria. Copenhagen calculates and monitors its emissions through an annual account of CO₂ emissions. Furthermore, the city has clear CO₂ reduction targets. What seems more unclear, however, is how the city *prioritizes* between CO₂ emission reductions and the offsetting built into the city's climate goal. There are no clear guidelines and procedures for deciding when and to what extent offsetting should be used. Questions regarding how to combine the two in policies and practice and how far the city should aim to go for emission reduction before switching to offsetting strategies remain unanswered.

Cape Town's goal is framed in quite general and strategic terms with only a few of the objectives being translated into concrete targets. This opens up for multiple interpretations and points towards a high level of *expansiveness*. Cape Town also has a high ambiguity on possibilities for *evaluation* due to few objectives having clearly formulated targets and a monitoring system not yet being in place. However, emissions are reported to national and international actors regularly on basis of climate data, statistics, and technical material. A key challenge for the city is to balance the climate and social justice agendas, given the deep spatial inequalities that characterizes the city. The general lack of priority of diverse and potentially conflicting goals and objectives provides for a high ambiguity also when it comes to *prioritization*.

Gothenburg's main climate goal is clearly expansive. The goal provides wide interpretative leeway and *expansiveness* in terms of how to understand and define it. "Sustainable" and "fair" are wide and vague concepts that different people will understand in different ways. The goal is accompanied by a defined maximum of CO₂ equivalents to be accepted per inhabitant, which brings a larger sense of clarity to the goal. Still, it is not easy to translate what this all means for a business or an administrative servant in practice as there are no procedures or standards operationalizing this goal. Second, the goal is hard to *evaluate*. When are the emissions sustainable and fair enough? Gothenburg has a multitude of lower-level or sub-goals, but they are not operationalised into quantifiable monitoring schemes; only qualitative assessments are done in terms of the progress and performance on distinct tasks. Moreover, there is only weak follow-up of expectations (e.g. by the Environmental Administration) and limited repercussions if the goals are not attained. The goal attainment is also set far into the future, in 2050, which means that the sense of urgency is lowered. Action may thus easily be postponed. Third, the goal is not accompanied by clear *priorities*, rather, there is a multitude of underlying goals that are not ranked. In sum, the climate strategy of Gothenburg is highly ambitious *and* ambiguous.

The analysis of the cities' goals opens for interesting comparative insights. A close inspection of the level of ambiguity in relation to *expansiveness* seems to confer corresponding level of ambiguity in *priority*. When the climate goals are expansive and there is a large scope for interpretation of the goals, it seems hard to prioritize between different goals. This is a fair conclusion from our observation of the cases in both Gothenburg and Cape Town. The broad social sustainability and justice agendas found in both cities, open for high levels of ambiguity in governance that seems to make

implementation more difficult. In the context of low ambiguity in *expansiveness*, i.e. little scope for interpretation of climate goals, we observe low ambiguity in *priority*. It becomes easier to prioritize between conflicting goals, and clearly defined goals also give rise to fewer conflicting goals. This is a lesson from Oslo, and to a somewhat lesser extent also from Copenhagen, linked to the city's relatively open CO₂ neutrality goal, yet clear calculation.

Comparative analysis of the city approaches

In this section we will take these insights a step further by discussing potential origins and implications of each city's level of goal ambiguity. However, neither this study nor most other studies of urban climate governance provide opportunity to trace cause and effect relationships (van der Heijden 2019:6). Hence, our discussion is explorative in nature indicating aspects in need of further research. Bearing this in mind, the empirical material identifies several promising paths of inquiry that may expand our understanding of the cities' choice of climate goals and their institutionalization.

Linking the institutional context and level of goal ambiguity

Is it possible to identify a relationship between high goal ambiguities and an inclusive and consensus oriented approach to policy-making? And the other way around: a relationship between clear goals and a targeted and efficiency-oriented approach?

Let us start by looking at the two cities with the most ambiguous climate goals, Cape Town and Gothenburg. Are there similarities in their politico-institutional context that shed light on the adoption of a broad climate change agenda? Among the two, Gothenburg has the most consensus-oriented approach. A multitude of political committees and administrative actors are involved but none possess a clear mandate and strong powers to prioritize and implement their climate ambitions. Their highly inclusive agenda mirrors this political-institutional context and enables a multitude of actors to read themselves into the goal. The relationship in Cape Town is not that clear-cut due to the city's comparatively strong executive power. However, the Mayor operates in a setting with a high number of political committees and councilors involved, at the same time as the dependency of other spheres of government is high. The city also has a long history of collaboration with academia and business that has been very important for developing the city's climate agenda; a collaboration that continue to form the backbone of the dialogue on climate policies and strategies. The need for inclusiveness seems therefore to be present also in Cape Town. As in Gothenburg, the implementation of the climate goal is delegated to a department with a broad set of tasks at their desk. Hence, when formulating climate goals and strategies in such variegated settings, our observations imply that design and formulation of goals need to be more inclusive and vaguely defined opening for a diversity of interpretations and various interests to be part of the strategy. It further makes it difficult to have a clear priority between competing, underlying goals, and to specify the goals through calculation and monitoring schemes.

Copenhagen is an interesting case in point. Their executive body consisting of the Lord Mayor and her/his group of Mayors resembles to some extent Cape Town. Yet the group of Mayors do not necessarily form a coalition, but may consist of opposing parties creating a need for consensus across political divides. However, the low number of political committees and a special-purpose secretariat strengthens efficiency at the expense of inclusiveness. Looking at the climate neutrality goal of Copenhagen in the context of their politico-institutional setting, it seems to nicely balance inclusiveness and efficiency pursuing green innovation and green

growth. It is seemingly targeted and open at the same time.

Oslo is the clearest case of a low ambiguity, efficiency approach to climate goal-setting and institutionalization. The city government has strong executive power, the political model consists of a small number of political committees, and they have a dedicated Climate Agency supported by clear priorities and calculation schemes. In addition, there is general support for the climate ambitions across the political spectrum. The system puts more weight on efficiency than inclusiveness – the city government has a mandate to operationalize goals and strategies without consulting the city council, reducing the gap between goals and implementation.

Based on these observed differences an interesting hypothesis is whether a political organization with a strong mandate and wide leeway and capacity to act, strengthens the ability and will to formulate ambitious yet targeted goals, and a willingness to reduce the implementation gap often found in urban climate governance. The rationale behind this assumption is that a city government in such a situation will use the mandate and opportunity provided to develop coherent policies in policy areas where the ambitions are high. In contrast, political systems with a weaker executive capacity will develop ambiguous and more inclusive goals reflecting a broader set of political interests and aims. This further makes it difficult to operationalize the goals into priorities and to monitor progress. These potential causal relationships should be further tested through more rigorous research methods.

Linking goal ambiguity and collaborative strategies

Our comparison opens for further reflection on how different climate goals and their institutionalization set cities on distinct collaborative courses of action. In sum, our results indicate that diverse forms of collaboration are an integrated aspect of climate governance in the cities irrespective of their approach to climate goal-setting. Rather, it is the scope, type and endurance of the collaborative processes that vary. Gothenburg and Cape Town have both adopted an inclusive approach reflecting not only their ambiguous climate goal but also their relatively fragmented political steering and internal administrative capacity constraints. Both cities have developed close and long-term collaborative platforms with academia, other public actors and civil society. By involving a broad set of external actors in enduring collaboration to further define, discuss and delimitate climate goals and strategies they may come closer to goal attainment, while at the same time compensate for comparatively weaker political mandates. A question in need of further research is if the engagement of local and transnational networks and platforms in the cities' climate governance reflects a relatively fragmented political steering, internal administrative capacity constraints, and, thus, compensates (in Gothenburg's case) for a relatively weak executive power (Healey 2004). Previous research found that the two cities' engagement in international networks work to strengthen internal capacity for climate action (Hickmann and Stehle 2019; Pierre 2019). Our observations point to the same effect when it comes to such interaction with trans-local urban networks and collaborative platforms. Oslo and Copenhagen reveal a comparatively clearer devolved mandate for climate governance than Cape Town and Gothenburg. Their more targeted approach and stronger capacity for climate governance seem to stimulate collaboration as a means to solve concrete problems. Collaboration is not a strategy in and of itself, perceived as an intrinsic 'democratic' value; rather it is a means to an end; an instrumental way to develop new solutions – either in governance or technologies – contributing to goal attainment through operationalization and implementation of goals and policies.

This strong indication of a relationship between the ambiguity

of climate goals and the approach to collaboration is highly interesting and corresponds to recent research. Diaz-Pont (2020) identifies two approaches to urban climate governance referred to as “decision-making” and “action-taking”. The first being signified by shared governance through cooperative interaction, consensus-seeking and problem negotiation (Diaz-Pont 2020:4). The second, action-taking, points to situations where governance is more concentrated in the hands of the city government, building of technical expertise for effectiveness and a focus on problem resolution (ibid). This dichotomy mirrors the approaches identified in our material. Gothenburg and Cape Town come closest to “decision-making”, whereas Oslo and Copenhagen illustrate an “action-taking” approach. Our results thus support Diaz-Pont's identification of two different approaches to urban climate governance that cities may employ. At the same time, we contribute new knowledge by introducing distinct forms of local goal-setting and the diverse institutional capacities folded into these approaches.

Conclusion

The article set out to study the implications of different levels of goal ambiguity for urban climate governance. The adopted analytical framework broadens the scope of traditional goal-setting theory by considering not only internal goal-setting, but rather see goal-setting as a platform for mobilizing multiple stakeholders for some shared, collective purpose. The analysis reveals how the level of goal ambiguity is closely tied to the politico-institutional context, and motivate diverse forms of collaboration between municipal agencies and concerned and relevant actors. The study explores how these variables work together in urban climate governance in four climate-ambitious cities. Two strategies are distinguishable. An *inclusive approach* containing ambiguous all-encompassing climate goals, consensus-oriented political decision-making, a broad administrative entity with weak mandate and close and long-term stakeholder collaboration. An *efficiency-oriented approach* which is largely instrumental, and includes clear and problem-oriented climate goals, both goal-effective and efficiency-oriented political decision-making, a special-purpose administrative entity with a wide and clear mandate and targeted and temporary stakeholder collaboration brought together to address specific problems or subject matters. However, we suggest that further studies of goal-setting processes with a focus on ambiguity and governance performance are required. Two questions arise from the analysis that need further exploration and research: Does an inclusive and consensus-oriented political system stimulate ambiguous goal-setting, while an efficiency-oriented system opens for the adoption of clearer goals? Does the adoption of various levels of goal ambiguity inform the scope, type and endurance of collaborative efforts, and are goal ambiguities also a reflection of the constellations of collaborative actors and diverse interests and views within the broader political economy of concerned citizens and actors?

CRediT authorship contribution statement

Hege Hofstad: Conceptualization, Methodology, Investigation, Writing - original draft, Writing - review & editing, Supervision, Project administration, Funding acquisition. **Marianne Millstein:** Methodology, Investigation, Writing - review & editing. **Anders Tønnesen:** Methodology, Investigation, Writing - review & editing. **Trond Vedeld:** Methodology, Investigation, Writing - review & editing, Funding acquisition. **Karsten Bruun Hansen:** Methodology, Investigation, Writing - review & editing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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