



Local climate action plans in climate change mitigation – examining the case of Denmark



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HIGHLIGHTS

- Widespread adoption of climate action plans among local governments in Denmark.
- Local plans cover two-thirds of Danish emissions and have slightly lower targets.
- Local plans have a high-overall coverage with variation in scope and target level.
- Indicates potential of including all local actors in integrated governance system.
- Integrated governance system should improve plans by regional supporting structures.

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ABSTRACT

The article examines the climate action plans (CAPs) of local governments (LGs) in Denmark. Applying a quantitative content analysis approach, all Danish LG action plans within the climate and energy field has been collected and coded, giving insight into the extent of LG CAPs. We assess the extent, targets and scope of LG CAPs and find that Danish LGs are highly involved in mitigation activities with a widespread CAP adoption and an overall high degree of sectoral coverage on base year accounts and action plans, albeit with some significant shortcomings. If current LG CAPs were to form the basis of a decentralised climate governance system, some improvements in target level and sectoral coverage should be implemented. The utilization of regional supporting structures facilitating a gradual improvement seems especially promising. In addition the research points to the significant mitigation potential of considering the full spectrum of local government actors, not simply the pioneers and how local CAPs outside urban pioneers require additional local policy framing to succeed. Focusing on the mutual benefits for national and local actors of an integrated planning system, and the multiple benefits locally, will be key in motivating further action.

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1. Introduction

Can local planning provide a significant and relevant contribution to climate change mitigation? The objective of this research is to assess the relevance of local climate action planning in mitigating global climate change, by examining the propagation and scope of local climate action plans (CAPs) in Denmark.

The institutional anchoring of Local Governments (LG) work towards global sustainability, including climate change mitigation, can be firmly based on the 1992 Rio Earth Summit's adoption of

Abbreviations: CAP, Climate Action Plan; CoM, Covenant of Mayors; DN, Danish Nature Conservation Organisation; LA21, Local Agenda 21; LG, Local Government; LGDK, Local Government Denmark; IPPU, Industrial Processes and Product Use; AFOLU, Agriculture, Forestry and Land Use; LULUCF, Land Use, Land Use Change and Forestry

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the Agenda 21 plan of action. In this action plan, the United Nations (UN), and the majority of the countries in the world, acknowledge the key role played by local governments (Musco, 2010: 59). "Because so many of the problems and solutions being addressed by Agenda 21 have their roots in local activities, the participation and cooperation of local authorities will be a determining factor in fulfilling its objectives." (UN, 1992: pt. 28.1). Following this affirmation, chapter 28 of the declaration appeals to local authorities to engage in developing local plans for sustainable development, an appeal that has since been reaffirmed by all the subsequent world conferences on sustainability (Lafferty, 2001:1; UN, 1997: pt. 12; UN, 2002: pt. 167; UN, 2012: pt. 42). In the context of global climate change, the need for immediate action as well as the lack of such action from major emitters; several authors point to the frameworks and planning traditions established by Local Agenda 21 (LA21), and the role of local governments in addressing the problem bottom-up (Fudge and Peters, 2009: 103; Holm,

2007: 176; Musco, 2010: 74). “It was therefore argued that local government agencies could now perform a role as a catalyst in linking top-down agendas and bottom-up delivery through their influence ‘as major players in the local economy: their role as employers, purchasers of goods and services and local regulators’, meant that they were ideally placed to provide a more strategic approach to the governance of global risk.” (Fudge and Peters, 2009: 105). In attempting to mitigate global climate change through local action, it is essential to assess whether local governments are willing to act, and whether those actions can be considered relevant contributions to mitigating the problem at hand.

An initial review would suggest that local governments exhibit a willingness to take action on global climate change. One indicator of this are the numerous international networks that has been formed through which thousands of local governments have pledged to take ambitious voluntary action on climate change, clearly showing that local governments are picking up the gauntlet in the absence of agreement in the international community (Kern and Alber, 2008: 184; Bulkeley, 2010: 232f; Corfee-Morlot et al., 2009: 29; Bulkeley and Betsill, 2005: 42). Local governments have worked with initiatives to mitigate global climate change since the early 1990s in parallel with the LA21 sustainability work, but in recent years the number of initiatives have grown exponentially (Bulkeley, 2010: 231f). In a Danish context, studies show a similar trend of increasing interest in the mitigation activities among local governments, and in 2009 Local Government Denmark (LGDK) called upon the state to revisit the division of tasks on energy planning among the different levels of government, with the aim of assigning additional tasks to Danish municipalities (MM, 2010: 17; Hoff and Strobel, 2013: 3; Sperling et al., 2011: 1341; LGDK, 2009: 6).

With regards to the relevance of those actions, the Agenda 21 action plan, and with it the world community, clearly recognize the key role played by LGs in addressing sustainability problems (UN, 1992: pt. 28.1). In fact global systems thinking often run the risk of discounting that global changes are always locally ‘made’ and enacted (Coenen et al., 2012: 975). Looking more specifically at climate change mitigation, climate change is undeniably a global issue; the driving forces however, can generally be considered local, in the sense that they are a result of activities (and associated emissions) in a given place (Aall et al., 2007: 84; Wilbanks and Kates, 1999: 610ff, 615; Bai, 2007: 18). In this way local action can be considered critical as LGs can influence a number of the key sectors in mitigating the problem (Musco, 2010: 67f). Additionally centralized decision-making will likely lead to either information impoverishment or overload, as the transmission and utilization of information on local characteristics to central decision makers will be difficult if not impossible and infer a high transaction cost (Scharpf, 1993: 135). By limiting the scope of enquiry, e.g. by local as opposed to national energy planning, more aspects of a given planning process and detailed knowledge of the local area can be taken into account, providing a significant potential for optimal energy planning (Crossley and Sørensen, 1983: 9f). This potential is further exacerbated by the localised nature of renewable energy (RE) resources. As RE resources are significantly more dispersed and difficult to store and transport than fossil fuels (Smil, 2010), a more distributed generation and correspondingly a more distributed planning system may be a better ‘fit’ than the traditional national planning system. However some limitations in a local approach to climate change mitigation can be identified as well, in particular the voluntary nature of the commitment, leading to largely symbolic targets that has only seldom been implemented fully (Musco, 2010: 74; Bulkeley, 2013: 74). Alongside implementation difficulties, the voluntary nature of early commitment has resulted in a large variation with regard to target, scope and quality of LG CAPs (see e.g. Wheeler, 2008: 483; Rice, 2013:

333; Hoff and Strobel, 2013: 6; Dixon and Wilson, 2013: 673f). Some variation is desirable as customization of measures to local mitigation options is one of the key arguments for increased local action (Lutsey and Sperling, 2008: 674). However, if variation is due to shortcomings in the CAPs as opposed to customization, this may greatly inhibit the effectiveness of local action. Kousky and Schneider note that municipalities define, and thereby calculate emissions in varying ways (Kousky and Schneider, 2003: 363). A result of this variation in CAP content is variation in CAP scope, possibly leading to the omission of key aspects from the planning process as well as excessive focus on other measures, which in turn may yield suboptimal results. Local programs are often characterised by grabbing the ‘low-hanging fruit’, and not the more challenging or long-range aspects of the system transition (Rice, 2013: 333; Sperling et al., 2011: 1344). The lack of a long-term perspective, as well as a coherent and coordinated effort, runs the risk of creating externalities and producing a suboptimal result (Giddens, 2009: 128). These aspects relate to the inherent scale issues associated with addressing a global problem locally. This is partly a conceptual issue, in the sense that the GHG emissions influenced by local decision makers do not necessarily fit with the emissions driven by local actions (Wilbanks and Kates, 1999: 605, 616; Bai, 2007: 18). And it is partly motivational, as people are asked to take local action on a global problem, distant to them in both time and place (Wilbanks and Kates, 1999: 618; Bai, 2007: 19). In this study we wish to examine whether local authorities in Denmark exhibit a widespread adoption of climate action plans and whether their actions constitute an adequate and relevant contribution to climate change mitigation in terms of scope and target level. By including not simply frontrunner municipalities, but all local authorities in Denmark, we aim to discuss the possibilities and advantages of including local authorities in a more decentralised governance system for climate change mitigation.

1.1. The extent of local climate action

The role of local governments, as important actors in sustainable development and climate change mitigation, has received increased attention since the mid-1990s (Sperling et al., 2011: 1339; Bulkeley, 2010: 231). Early research within this field, and indeed much research to date, has focused on studying individual or small sets of cases (Broto and Bulkeley, 2013: 92f; Bulkeley, 2010: 248; Rice, 2013: 334). This has led some researchers to conclude that “...there is a need for further comparative research using significant numbers of cases.” (Bulkeley, 2010: 248). Subsequently a number of comparative studies have attempted to address this caveat in the research community, however their research interest in explaining the variation in and emergence of local action have resulted in studies primarily focused on large cities and urban centres (cf. Dixon and Wilson, 2013: 664; Broto and Bulkeley, 2013: 93) or on members of local government networks (cf. Rice, 2013: 333; Wheeler, 2008: 481; Gore, 2010: 28). These are valuable and highly relevant research areas, they do not however facilitate a discussion on the overall relevance of local action, as only the pioneering local authorities is part of the study. A smaller group of studies have included a wider circle of local authorities; all of these however apply a survey methodology, in which participation is likely skewed towards the ones taking action and the ones participating will likely complete the questionnaire with some interpretive bias (cf. Pitt and Bassett, 2014: 2; Salon et al., 2014: 67; Bedsworth and Hanak, 2013: 668, and in a Danish context Hoff and Strobel, 2013: 4; CONCITO, 2010; Energiforum, 2014).

To address these aspects we apply a comparative content analysis approach and include all local authorities in Denmark. By including not simply urban frontrunners, but all LGs in a country,

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