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Policy packages and state engagement: Comparing car-use reduction policy in two Norwegian cities

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ABSTRACT

Policy packages are structures used to combine different policy measures and address multiple objectives. This paper links local-level policy packaging with national authorities' environmental strategies. Applying a multilevel-governance perspective, it examines how state engagement influences the integration of car-use reduction strategies in local policy packages. Two policy packages are empirically compared, one from the larger Norwegian city of Trondheim and one from the mid-sized city of Bodø. While both policy packages reveal ambivalence in whether to facilitate or restrict car usage, the strategies employed in Trondheim to mitigate the effects of road building are stronger than those used in Bodø. In Trondheim, more resources are used for climate-friendly transport and stronger regulation is applied to integrate land-use and transport policy. In explaining this, different levels of state engagement are emphasised. The study reveals how, both financially and in the building of institutional capacity, the approach of national authorities prioritises the larger city.

1. Introduction

The need for more sustainable cities has long been on the political agenda, with the transport sector identified as crucial in the reduction of greenhouse-gas (GHG) emissions. The applied strategies include the integration of land-use and transport systems to achieve car-use reduction (CUR). It is in this context that policy packages (PPs) have emerged as suggested solutions. One argument for the PP approach is that a deliberate combination of mutually supportive policy measures may enhance their effectiveness (compared to isolated measures) and increase the likelihood of implementation (Givoni et al., 2013). This paper responds to a call for more research on PP implementation (Givoni, 2014), primarily by linking local-level policy packaging with national authorities' environmental strategies. Applying a *multilevel-governance perspective* (e.g. Betsill and Bulkeley, 2006; Bulkeley, 2010), the research question concerns how state engagement influences the integration of CUR policy in local-level PPs.

Two Norwegian PPs are empirically compared, one from the city of Trondheim and one from Bodø, here termed the *Trondheim* and *Bodø Packages*.[1] The two PPs are involved in land-use and transport-system development and their goals include both CUR and traffic effectiveness. Thus, they exemplify interventions with diverse and potentially conflicting goals (cf. Vedung, 2006). In practice, they target CUR while building new road infrastructure. Central to the analysis is thus how the potential traffic-increasing effects of the road projects are countered through other policy measures.

The two PPs are part of the same overall institutional framework, as evident in national authorities' emphasis on the PP approach for local development of land-use and transport systems. They follow a widely observed tendency towards state rescaling, with enhanced governance roles at the local and regional levels (Gibbs and Jonas, 2000; Macleod and Goodwin, 1999). Still, as Bulkeley (2010) comments, climate change also illustrates a policy field in which the state seeks to engage. Such state involvement is nevertheless different for the two empirical cases. Both financially and institutionally, national authorities are more involved in the PP of the larger city of Trondheim. This difference forms the basis for case selection.

Underpinning the paper is the understanding of a mutual dependency between local and national authorities in developing effective climate policies (Aall et al., 2007). At the outset, it was hypothesised that the different state engagements in the two cases have influenced how the PPs are constructed and their likely ability to achieve long-term CUR. The stronger local–national integration in Trondheim was believed to provide stronger PP strategies for CUR than in Bodø.

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[1] Original names: 'The Environmental Package' (the Trondheim Package) and 'City Package Bodø' (the Bodø Package).

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2. The challenge of reducing GHG emissions from transport

Via densification strategies, urban planning plays an important role in both reducing the length of car trips and increasing the modal share of walking, cycling and public transport (e.g. Næss, 2006; Tennøy, 2012). *Compact-city development*, a concept with roots in Jacobs' (1961) influential work, has been used to describe such approaches. In addition to reducing GHG emission, strategies seeking to reduce traffic volumes can potentially also address other transport-related challenges such as noise, congestion and the fragmentation of urban landscapes by road infrastructure.

The improvement of road infrastructure is highly related to questions of CUR and compact-city development. These may not only hinder a modal split towards more climate-friendly transport usage, but also contribute to urban sprawl. This result from improved road facilities increasing the attractiveness of outlying areas, as travel between the city centre and the outskirts becomes easier (Litman, 2014). Therefore, this paper particularly emphasises how road building is combined with measures intended to mitigate its traffic-increasing effect.

An integrated approach to land-use and transport-system development is presented by Tennøy (2012), who recommends that urban strategies should (1) steer land use towards urban densification rather than sprawl, (2) impose physical and economic restrictions on road traffic, (3) improve public transport and (4) improve conditions for walking and cycling. This represents a classic approach of combining 'stick' with 'carrot' measures (Bemelmans-Videc, 1998). However, in contrast to Tennøy's (2012) suggested approach, the two PPs in this study also include the building of road infrastructure.

2.1. Road building as a response to congestion

Road-capacity increase is a typical response to congestion in urban areas. In many cases, this approach has short-lived advantages. Following Nolan and Lem (2002), any increase in capacity reduces the time cost of travel, resulting in increased traffic volumes.[2] The cheaper the travel in terms of money and time, the greater the demand (Goodwin and Noland, 2003). Consequently, levels of congestion and GHG emissions increase. Mogridge (1997) points to the need to improve the quality of public transport instead of just increasing road capacity when journey speeds in urban areas are to be improved. Similar effects can be achieved by making car usage less attractive through regulative measures. It has therefore been advocated to manage road demands through policy measures instead of applying the traditional engineering approach of predict-and-provide (see e.g. Hull, 2008; Strand et al., 2009).

3. Policy packaging environmental strategies

PPs are here defined as 'the combination of individual policies and measures (...) to achieve a certain goal' (Filipe and Macário, 2013, p. 150). They represent a suggested solution when isolated policy measures have proven insufficient, or worse, produced unintended negative side effects. The interrelations between the modes of transport illustrate the need for coordinated policy approaches. For example, a situation could arise where the effect of public-transport improvements is weakened by simultaneous improvements in road structures (making car use faster and more comfortable), explained by the *competitive relationship* between the different modes of transport (Strand et al., 2009). To keep road building from degrading the effects of public-transport improvements, additional measures like toll-road payment, fuel taxes, stronger regulation of parking and public-transport prioritising could be introduced.

3.1. Implementation of policy packages

There is a relationship between effectiveness and implementation; the most effective measures are often most difficult to implement (Givoni, 2014; Givoni et al., 2013; Rist, 1998; van der Doelen, 1998). Within the transport sector, it is common for promising measures to emerge but remain unimplemented due to opposition (Sørensen et al., 2014). There are many kinds of barriers, including legislative, technical and organisational ones. Political and public acceptance is highly important in the implementation of transport PPs (e.g. Vonk Noordegraaf et al., 2014). Lack of acceptance may relate to the distributional effects of policy, exemplified by compact-city strategies limiting landowners' ability to develop city outskirts. Also difficult is the prioritising of traveller groups, such as when public transport is facilitated, while car driving is made more expensive through parking schemes.

Studies suggest that the implementation of politically difficult measures can be facilitated when combined with more popular ones in PPs. Sørensen et al. (2014) observe how the use of revenues from toll-road payment for public-transport services or new road infrastructure ease implementation. This dynamic is confirmed by Norheim, Nilsen and Frizen's (2013) finding that acceptance of toll-road payment in Norway is influenced by what inhabitants feel they receive in return (hereunder public-transport improvements). Thus, toll-road payment embedded in larger PPs exemplifies a means of legitimising unpopular measures by enabling the financing of more popular ones. However, the implementation of CUR policy is not just a question of designing the appropriate combination of measures, but also one of how the state engages in local policy.

4. Understanding cooperation between local and national authorities

Cities are identified as important in the governance of environmental politics (Betsill and Bulkeley, 2007). International commitments are thus filtered down to the city level. This corresponds with an overall tendency towards state rescaling, with environmental responsibilities devolving downwards. Local authorities have been set as key actors to implement international environmental policy (Gibbs and Jonas, 2000). The intent is to enable local administrations to develop policies tailored to the economic and social conditions of their geographic areas (cf. Docherty, 2004). Hence, local bodies have taken over several functions and responsibilities formerly delivered by the state. This shift has also been characterised by a transition from direct governmental interventions in municipal affairs to more indirect forms of influence and control through contracts and regulations where cooperation with sub-national levels may be voluntary (Goldsmith, 2005).

To Sassen (2009), local authorities are in a strong position to pursue sustainability goals 'as direct or indirect providers of services, as regulators, leaders, and partners' (p. 5). Exemplifying this is the delegation of Norwegian land-use authority to the municipal level. In an European context, Norway is among the countries with most tasks devolved to municipalities (Ministry of Local Government and Modernisation, 2014a). However, to understand CUR policy, we need to assess the formal powers of local authorities, as well as their available instruments and resources. Tosics (2011) concludes that local authorities have been overburdened with decentralised tasks and insufficient financing, thereby having responsibility for policy outcomes while depending on national-level financing. This was also the conclusion of the

[2] The study concerned highways.