
Parking regulation as a tool for climate and mobility planning in cities

Summary and recommendations

Land in dense cities is often scarce and needs to be prioritized accordingly. By adopting an active parking policy, municipalities can consider how much land use should be allocated towards cars at the expense of other land uses. A parking policy consist of prioritizing which types of car-based activities and which car drivers are wanted in the city. In existing urban areas, the strongest regulatory tools are the number of parking places, limitations on time, and paid parking. Adjusting these will limit the number of incoming cars to an area. For new developments, low parking norms assist in creating neighborhoods with limited car traffic.

Danish and Norwegian analyses demonstrate that parking conditions at the destination are determining modal choice. If it is easy and free to park, twice as many will drive compared to when it is difficult and expensive. Similarly, Norwegian analyses demonstrate that in situations where public transportation is competitive with the car on travel time, twice as many will choose public transportation if there is a cost associated with parking at the destination. Hence, parking restrictions are an effective tool for limiting total car traffic.

It is not possible to generally quantify the effects of individual parking regulation initiatives since the effects will be dependent on the overall conditions for car traffic and parking in the area. However, we attempt to estimate the relative magnitude and impact of parking regulation. The main effects of parking regulation are that car traffic and ownership decrease. The most important initiatives and their effects are evaluated in the table below.

Table 1: Primary regulatory tools and their impact

Initiative	Who is impacted?	CO ₂ -impact	Comments
Reduce the number of parking spaces	All car drivers	+++	The space can be used for bikes, bus lanes, green spaces etc.
Time limitations on parking	Car drivers who park for an extended time: commuters and residents	+	Creates more car traffic per parking space but also transfers car trips
High cost of parking	All – primary long-term parking and low-income groups	++	Will reduce inflow and will improve accessibility for necessary car trips
Low max norms for new developments	Primarily new residents but also other car drivers	+++	Requires regulation of neighboring areas to avoid spillover effects
High cost of residential parking license	Residents	++	Can generate more incoming traffic is not accompanied by other initiatives
Establishing parking in construction	Residents in the area, overall urban quality	---	Parking below ground level or in a building emits substantial amounts of CO ₂

Recommendations for municipalities

CONCITO recommends that municipalities use parking policy as a tool to limit CO₂-emissions from car traffic. A parking policy should include a comprehensive prioritization of what the municipality intends for the public parking spaces. The answers to the following questions will be a good starting point in defining the necessary initiatives in the parking policy:

- Are there urban areas in the municipality where public transportation either is or is planned to become sufficient as to not need too many parking spaces for cars?
- Are there urban areas where the distance between homes and destinations are so short that transportation can be expected to primarily be reached by walking or (electric) biking?
- Are there parking areas, which with right initiatives could be freed up for other urban activities (bike lanes, bus lanes, places to stay, green spaces etc.)?
- Which parking spaces should be filled first (parking houses, street parking, large peripheral parking lots/houses on the outskirts of the city center?)
- How should new developments be planned, in order to minimize the need for car ownership?

A comprehensive parking policy can be used to outline the necessary priorities when the municipality desires to limit car traffic in the city center. The parking policy must use the different initiatives (reducing the number of parking spaces, time limitations on parking, paid parking, and residential parking) in different areas in such a way that restrictions are cohesive and send a clear signal to car drivers. It must be easy to understand the restrictions at any given place, and the intention must be communicated to car drivers. The latter contributes to avoiding parking searching traffic if it clear that it is not possible to find a random available parking space.

A parking policy should cover the entire urban area in which demand for parking exceeds supply. Otherwise, parking is merely displaced to neighboring areas. It might also be relevant to introduce mechanisms which ensure that a tightening of restrictions is possible when and if the number of cars in areas were to increase. It might be an ambition that car drivers should be able to find a parking space in an area (e.g., in a retail area). If the increase of cars makes that impossible, the parking policy must be designed such that restrictions are tightened. For example, going from limitations on time to paid parking or a price increase. In this way, the municipality can ensure that it is exactly as easy or as difficult to park as they desire.

A parking policy should also take an active stance on parking norms of new development and use low maximum norms. Furthermore, the CO₂-emissions of constructing parking facilities should be included in the total assessment of parking solutions.

Recommendations for the state

To empower the municipalities to pass adequate parking regulations, CONCITO recommends legislative changes in the following areas:

- **Parking minimums:** All demand for minimum parking norms as well as demands for compensation for lack of parking are removed.
- **Revenue:** The reduction of state grants to the municipalities, in case of high parking revenue, should be dropped.
- **Use:** Multifunctional uses of parking spaces should be allowed, and the value of free employee parking should be taxed like other employee benefits.
- **Construction:** The full CO₂-emissions from parking construction should be included in the life cycle assessments of buildings, and it should be ensured that including parking is not rewarded in the building's CO₂/m²-performance.