



Quantifizierung der Klimawirkung des Radverkehrs

Özkan Özdemir

Abstract

The transport sector is currently responsible for approximately 22% of the greenhouse gas emissions (GHG emissions) in Germany and for around 25% in the European Union. In light of the urgency for sustainable development and corresponding legal as well as international agreements, the sustainable transformation of the transport sector is gaining increasing attention, particularly through the shift in propulsion technologies and the strengthening of environmentally friendly transport modes, such as public transport, as well as cycling and walking. In particular, (electric) cycling is being given significant importance alongside public transport in substituting short-distance trips in urban transport. Its economic and health benefits, as well as potential climate effects (in terms of reduced GHG emissions), are being highlighted. However, there is still a lack of unified data quantifying the climate impact of cycling. This thesis systematically reviews existing research on the climate impact of (electric) cycling, comparing it with other modes of transport, and considering the potential for modal shift. It will also estimate future scenarios regarding the potential for emission reductions.

Supervisors

Univ.-Prof. Dr. Heather Kathes
Dipl.-Ing. Leonard Arning

Study Programme

B.Sc. Verkehrswirtschaftsingenieurwesen