



Think globally, act locally - reducing environmental impacts of transport

Regine Gerike^{1*}, Tina Gehlert², Falk Richter¹, Wolfram Schmidt¹

¹ Chair of Transport Ecology - ² Chair of Traffic and Transportation Psychology
Faculty of Transportation Sciences "Friedrich List"
Dresden Technical University

Abstract

This paper presents a pragmatic approach for reducing the environmental impacts of transport in the German Federal State Saxony. The aim is to use the potential of pricing measures for effectively reducing environmental impacts of transport. They are combined with less-effective but more accepted non-pricing measures in a policy package. The development of this approach starts with the calculation of the current external costs of transport in the case study area. Second, a policy package reducing these external costs is composed. Third, the development of the external costs is assessed and compared in two scenarios, a BAU-scenario and the policy scenario where measures reducing the environmental impacts of transport are implemented. Fourth, the public and political acceptability of this policy package are investigated. The results show that it is possible to develop a policy package that is effective for reducing the environmental impacts as well as acceptable to the public and politicians. Therefore, such a package approach is suitable to guide future political decisions and actions towards a more sustainable transport sector.

Keywords: Sustainability; Transport; Environmental impacts; External costs; Acceptability; Saxony.

1. Introduction

For several decades, European transport policy has sought to reduce the environmental impacts of transport and to support the concept of sustainability in the transport sector. Significant progress was made in different areas, especially in the development of new technology. However, the reductions in emission achieved by innovations were largely overcompensated by an increased transport performance.

Economic measures are regarded as a promising way for reducing the environmental impacts of transport. Such measures include not only direct operating (internal) costs but also costs resulting from environmental impacts, congestion, accidents etc. (the so-

* Corresponding author: regine.gerike@tu-dresden.de