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The Economic Impact of Environmentally Sustainable Transport in Germany

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Abstract

The economic assessment of the Environmentally Sustainable Transportation (EST) scenarios developed throughout this paper are part of Phase 3 of the overall project, which is on social and economic assessment and on devising packages of instruments that - if implemented - would result in attaining EST.

Two methods were chosen for the assessment of the scenarios: a qualitative evaluation based on a simplified cybernetic model (SCM) and a system dynamics model (SDM).

In the assessment with the simplified cybernetic model, a conservative baseline has been chosen in order to start with a scenario that incorporates some pessimistic views of the industry. The aim is to show that, even in this case, an economic disaster will not occur.

The System Dynamics Model ESCOT was designed to consider the ecological and technical aspects of a transition towards sustainable transportation. It is important that ESCOT considers not only first round effects but also secondary effects, which makes it a powerful instrument for the assessment of such large ecological changes.

The economic assessment of environmentally sustainable scenarios shows that the departure from car and road freight oriented transport policy is far from leading to an economic collapse. The effects concerning economic indices are rather low, even though the measures proposed in the EST-80% scenario designate distinct changes compared to today's transport policy. The impacts on some economic indicators, however, are clearly negative. With an expansion of the time period for the transition in the EST-50% scenario we derived even more encouraging results than for EST-80%.

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