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# Sustainable development synergies and their ability to create coalitions for low-carbon transport measures

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**Abstract**

Many low-carbon transport strategies can help achieve other economic, social and environmental objectives. These include improving access to mobility, reducing traffic and parking congestion, saving consumers money, supporting economic development, increasing public health and safety, and reducing air and noise pollution. Based on Avoid-Shift-Improve approaches and case studies from Germany, Colombia, India and Singapore, this paper shows that low-carbon transport generates significant and quantifiable benefits that can create a basis for political and societal coalitions.

Estimates suggest that currently available and cost effective measures can reduce transport Greenhouse Gas emissions by 40-50% compared to 2010. Yet, a number of barriers affect the optimal exploitation of this potential. Considering the possible economic, social and environmental benefits of sustainable transport, the shift towards a low-carbon pathway of this sector can be a win-win situation for climate protection and local development goals. This paper aims to make a contribution to understand these opportunities by highlighting the linkages between objectives, presenting case studies, facts and figures. The paper will also explore assessment methodologies and tools that can help practitioners to assess sustainable development benefits (SDB) and providing evidence for policy-makers to make more informed decisions on transport investments and polices.


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**From co-benefits to sustainable development benefits**

With regard to the terminology, this paper evolves from using the well-established term *co-benefit* that describes positive side-effects of climate change mitigation actions, towards using the term *sustainable development benefits* to highlight the fact that diverse environmental, economic and social impacts are equally important from a societal perspective. The paper also explores the risks and uncertainties of some impacts of mitigation measures that may lead to trade-offs and negative side-effects. This aim will help to inform priority-setting for decision makers.

From a climate change mitigation perspective, the term *co-benefits* may make sense, as for example safety or air quality improvements are a (positive) by-product of the primary objective. However, from a wider political perspective it would be wiser to refer to these effects as *sustainable development benefits.* This will give a clear indication on the equal importance of all pillars of sustainable development and may facilitate coalition building between sector ministries and stakeholders from the environmental field, such as the environment ministries and NGOs. As the relevant sector institutions (e.g. the transport ministry or local transport departments) may have other primary policy objectives, such as improving air quality, access or safety it is important to emphasize and measure social, economic and environmental benefits of climate change mitigation measures beyond the greenhouse gas emission reductions in order to motivate actors from these groups by showing the synergies in goal achievement and the benefits a given mitigation action will have in terms of the ministry's priorities. While of course, political and institutional structures are very different from country to country and equally on the local level, some of the key priorities and perspectives of institutions are likely to be somewhat similar depending on the mandate of the institution. Similarly, policy objectives will be different for various institutional actors. However, generating the highest potential level of synergies is likely to have a positive impact on the potential to form coalitions that can support the take-up of a specific policy measure or packages of measures (Nemet et al. 2010; Grubler et al. 2012).

**Low-carbon transport as enabler for sustainable transport policy coalitions**

This paper analyses synergies between low-carbon transport strategies and other economic, social and environmental objectives, as these can substantially increase the measure´s cost-effectiveness and help build political support for their implementation. Low-carbon transport measures, by avoiding trips, reducing demand, shift to low-carbon modes and improving vehicle efficiency can help achieve various further planning objectives including reduced traffic and parking congestion, public infrastructure and service cost savings, consumer savings and affordability (savings targeting lower-income households), increased safety and security, improved mobility options for non-drivers (and therefore reduced chauffeuring burdens for motorists), and improved public fitness and health, in addition to their pollution emission reductions. Sector officials and many other stakeholders place a high value on these benefits, which creates opportunities for join forces to support their implementation. This paper explores the linkages between climate change and typical policy objectives of key stakeholders and political actors.

## 1. Identify synergies to other sustainable development objectives

Low-carbon transport strategies that – in addition to reducing Greenhouse Gas (GHG) emissions - help achieve further economic, social and environmental policy objectives, can have a far more extensive overall impact on sustainable development and count with more political support, than mitigation measures that solely focus on the reduction of GHG emissions (Eckermann et al. 2013). Only a few studies have actually examined the total cost of transport including congestion, air pollution, accidents, and noise, and therefore the total potential benefits of policies and programs that reduce these negative impacts. One example of the results of an estimation of positive