Quantifying the Effects of Sustainable Urban Mobility Plans

OBJECTIVES
The European Commission is proposing a European support framework for the implementation of Sustainable Urban Mobility Plans in EU Member States. This initiative is consistent with the 2011 White Paper proposal to increase coordination between transport authorities and transport policy deciders. Consequently, an interest on how different urban measures can be used in order to render transport activities more sustainable has given way to research concerning the impacts and effects that policy measures might have on socio-ecological systems.

The methodology presented here uses the expert scoring information (Delphi method) available in current scientific literature in order to explore the impacts and effects that different urban measures may have in planning for sustainability on a European wide level.

METHODOLOGY
A five-step approach
1. Review of scientific literature sources on urban transport measure scorings (based on expert knowledge).
2. Computation of a single template that gathers and normalizes all expert scorings found in the literature concerning the impacts and the effects of urban transport measures according to their potential to:
   - avoid unsustainable transport practices,
   - shift to more sustainable transport modes,
   - improve on current behaviour in transport activities, as well as:
   - their impact on economic, social & environmental issues.
3. Assessment of average urban profiles for cities within NUTS3 zones according to current transport behaviour trends based on:
   - transport activity
   - employment in NUTS3
   - rail and road accessibility
   - population
   - commuting rates
   - urbanization rates & density
4. Establishing a tailored weighting system for the effects and impacts of urban measures according to the individual profile of each NUTS3
5. Quantifying the potential range of effects of policy measures on CO2 emissions for each NUTS3 zone using transport demand and CO2 estimation results (MODEL-T, JRC) for the year 2030.

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