

Summary:

Indicators for sustainable urban transport – state of the art

Indicator sets emphasizing the interaction between environment and society, play an increasing role in environmental politics. They represent a knowledge basis for planning and policymaking providing information on prevailing trends and pressing problems. Indicators simplify – and communicate – complex relationships and tendencies by quantification and action oriented measures. They have an antenna and agenda setting function – in “...subjecting problems to debate”. Based on a screening of ideal and realistic and, as far as possible, covering indicators, an indicator set is suggested, divided in five main areas: driving forces, transport, environment, impacts and plans and policies for sustainable urban transport.

Charged with carrying out the policy programme of ‘Sustainable Urban Transport’ in the Norwegian Public Roads Administration, TØI is conducting a three-year project on developing and testing indicators for environmentally friendly urban transport. The indicator set aims at describing significant trends in urban transport and its environmental impacts, in order to put forward successful appropriate policy packages in accordance with overarching environmental and transport policy goals. The project has a tripartite objective: to *map* actual development; to *clarify* essential driving forces behind the development in urban transport; and to *evaluate* appropriate policies and measures for a more sustainable urban transport.

Indicator development in public policy and administration aims at putting forward simple criteria – indicators – both as useful tools locally, for urban settlements and municipalities; and the same time applicable for comparison, over time and in space, benchmarking across towns, cities and regions – both in a national and international context. Since the early nineties composed or *integrated* sustainability indicator sets have been developed, linking the pillars of sustainability: environment, welfare and economy. Emphasis has also been given to the linkages between actual environmental state with policy goals (measuring distance-to-target) – seen in an enhanced causal chain from the underlying driving forces behind urban transport to its societal impact and political response.

The emphasis on indicators in public policy and administration the last two decades can be seen as anchored in two highly different policy discourses or steering ideologies. On the one hand, it relates to the need for measuring specific *result indicators* in all new units, agencies or enterprises emerged in public administration after the introduction of market oriented steering principles in accordance with the so-called New Public Management reform. Indicator

development is, on the other hand, strongly related to the policy shift in environmental policymaking from the late eighties underlining an integrated sustainability perspective linking environmental and societal development – and leaving the view on environmental protection solely as a sectoral concern. The policy integration of environmental concern across other policy areas and the claim for seeing environmental and transport policies in a more comprehensive framework, has to a certain extent “complicated” sectoral policies. A particular need for overviews and simplifications, both analytically and politically, has emerged. While there is still hard to define overarching policy goals, like ‘sustainable development’, precisely and operationalizably, simple measuring by indicators can at least indicate whether the development is environmentally friendly or not. Thus the current emphasis on indicator development in policy, administration and research, may also be seen as an important mechanism for complexity management and reduction.

European Environmental Agency (EEA) in Copenhagen suggests that appropriate environmental indicators should be able to respond to the following simple questions: What is actually happening of environmental change? Is it related to (significant) policy goals? Is progress possibly measurable? And how does overarching welfare development influenced? Important criteria to select suitable indicators, that are both descriptive, able to measure performance as well as progress, are thus that they are:

- *policy relevant*, consisting of parameters that actually might be influenced by policy and administration
- *accessible* for measuring and comparison – over time or in space; in goals versus results
- *representative* and *valid*, covering a broad scope of the environmental problems at stake
- *reliable* and, based on accessible data, of high quality with regular updating
- *simplified*, able to manage and reduce complex relationships
- *communicative* in order to promote an improved policy performance and broader understanding of the environment – transport relationships

Drawing on well-established international indicator sets on environment and transport, ideal and possible (accessible) indicators are discussed, and an indicator for environmentally friendly urban transport is suggested, divided in five main areas: *Driving forces, Transport factors, Environmental factors, Urban and societal impacts from transport, Urban planning, policies and measures*. Cf figure below.

