

**Summary:**

# **Strategic Transport Planning and Evaluation: The Scandinavian Experience**

This report is based on a paper presented to the Second Workshop of the TRANS-TALK Thematic Network “Policy and Project Evaluation Methodologies” under the Competitive and Sustainable Growth Programme of the European Commission’s Fifth RTD Framework Programme. The workshop, which was held 6-8 November 2000 in Brussels, was about Projects, Programmes and Policies: Evaluation Needs and Capabilities.

## **Current Planning Approach and Evaluation Methodology**

The report presents an overview of strategic transport planning and the evaluation methodology applied for this purpose in Scandinavia, that is Denmark, Norway and Sweden. There are similarities between the planning concepts applied in the three countries and two of them, Norway and Sweden, have developed their national transport planning systems along the same lines. The planning systems are at this stage more developed in Norway and Sweden than in Denmark and the ex post evaluation studies presented all relate to the former two countries. The report, consequently, has a stronger focus on Norway and Sweden than on Denmark, but there are indications that the planning system in Denmark may move in the same direction as in the other two countries. It also appears, that the professional communities in all three countries now subscribe to the same conceptual framework for strategic planning and evaluation.

The report makes an attempt of defining the terminology applied in respect of planning and the corresponding ex ante evaluation. Three levels are identified, namely:

1. The conceptual level, that is the basic principles and planning concept that provide the overall framework for the planning system
2. The approach level, that is the planning and evaluation approach or the overall methodological approach that applies for the actual planning situation and that is reflected directly in the planning process
3. The planning tools or evaluation methods level, that is the specific evaluation methods that are used in the various phases of the planning process

The review of the Scandinavian experience of national strategic transport planning shows that the planning concept in many respects is fairly advanced and well designed. Current comprehensive and cross-sectoral strategic transport planning

has its conceptual roots in the national long term planning of transport infrastructure projects, which started in the 1960's. The planning concept has changed dramatically over the last three decades and the report presents this change under the headings of three generations of national transport planning systems. A short version of the changes would be "from project focus to strategies".

The main features of the planning system currently applied in Scandinavia are inclusion of all transport modes in the planning process, prioritisation of measures across sectors and use of alternative strategies to demonstrate the latitude for decision-making. Ideally the measures considered should include not only investment projects but also others found relevant, such as pricing and regulatory measures. The planning concept is based on that politicians are responsible for defining objectives and at the end of the process decide on a strategy. It implies that the planners, which include the national transport agencies for air, railway, road and sea transport, develop alternative strategies based on a combination of measures from all sectors and assess the impacts of each alternative in respect of the various objectives defined. This provides the input for the politicians' decision on strategy. When the strategy is defined, the national transport agencies start their planning of implementation, usually through ten years action plans where implementation of the individual measures is prioritised in time and where the programmes for the first four years usually are more detailed.

The table below summarises the description of the planning concepts and the different types of methodology currently applied in the Denmark, Norway and Sweden for national strategic transport planning.

*Table 1 Overview of Planning Concept Features, Evaluation Approaches and Methods for National Strategic Transport Planning in Scandinavia*

Level	Item	Denmark	Norway	Sweden
1) Planning concept	Objective-oriented	x	x	x
	Strategy-oriented		x	x
	Project-oriented	x		
	Cross-sectoral		x	x
2) Approach	Process-oriented	(x)	x	x
	System analysis		x	x
3) Methods & supporting tools	Cost-benefit analysis	x	x	x
	Multi-criteria analysis	(x)	x	(x)
	Impact analysis	x	x	x
	National transport demand models		x	x
	Regional transport demand models			x
	Other demand models	x		

The table shows the similarities between the planning and evaluation systems in Norway and Sweden and the somewhat different situation in Denmark. If we had included ex post evaluation, the differences would have become even stronger.

Ex post evaluation studies are currently applied systematically for learning by experience in Norway and Sweden but not in Denmark. The results of the studies contribute to more systematic improvements of the planning system and the

evaluation methodologies. There are two main types, the one evaluating the planning process and the other investigating the various evaluation methods and their use. Due to these studies, Scandinavian experience also contributes to the picture of how planning processes and planning tools perform in the real world.

## **Do Current Methods address Strategic Planning Needs?**

### *The Political Process*

It is difficult at this stage to assess the relevance of the current strategic planning process in respect of the subsequent political decision-making process in Parliament. It is, however, only when the technical planning process can be seen in the light of the political process, that we get full feedback about the appropriateness of the technical process.

A study about Parliament's discussion of the Norwegian Road- and Road Traffic Plan for the previous planning period casts some light on the matter. The study concluded that very few politicians did seriously consider and use the information on alternative strategies. It is, therefore, at this point in time not clear whether the strategic transport planning processes currently applied really provide the most relevant decision information for the politicians. An ongoing study about the political process concerning the National Transport Plan in Norway is, however, looking further into the matter.

### *The Planning and Methodological Approach*

Generally the current approach is well in line with the requirements of the conceptual framework. There are, however, some matters of concern.

One concern is the objectives that guide the planning process. There are cases where there are discrepancies between the objectives and the measures available to the planning agencies. A key conclusion is that policy objectives should be realistic and achievable within a reasonable time perspective compared to the range of measures available to the strategic transport planners. If the objectives are more ambitious and broadly defined, planners should also be allowed to use a wider set of measures, but that may shift focus away from the measures controlled by themselves.

Another concern is the strategy concept applied in Norway and Sweden. The planning agencies are requested to develop alternative strategies that include different combinations of actions and measures. The basic idea behind the strategy concept is that politicians shall discuss strategies rather than projects and, finally, select a strategy, which then will provide the framework for the more detailed planning and implementation. Experience from ex post evaluation shows that there are good reasons to discuss whether the above approach to strategy-orientation is the best. It appears that the strategies developed by the planning agencies not necessarily are significantly different in respect of projects and measures included. Further, the little we know at this stage about the political process does not indicate that politicians find the strategies particularly useful in their decision-making process. The strategies may, however, be useful for others such as the Ministry of Transport.

The evaluation studies revealed serious problems, in respect of cross-sectoral prioritisation in both Norway and Sweden. It is, therefore, an open question to which extent these problems were due to insufficient knowledge or to lack of tools, which normally would be the conclusion of planners, or to which extent the professional level of ambition for such planning is realistic? It seems, however that the planning approach and the ambitious processes were more to blame than the various evaluation methods and planning tools applied.

It appears that the planning approach can be improved by re-organising the process. A division into a first a phase of clarification of general policy principles through a set of analyses of strategic issues and a second phase of developing alternative strategies may be a better approach. Further, there are reasons to believe that the regional level should play a bigger role in the national planning process. A two phased approach would facilitate involvement from the regional level at an appropriate time in the first phase of the process.

Experience from Norway and Sweden shows that the inherent institutional characteristics of the planning agencies are key factors in the process. The road agencies and the rail agencies played the most important roles, whereas the civil aviation agencies, which are financed through user charges, kept a low profile. It may, therefore, be worthwhile to consider if the process can be organised differently with a clearer distinction between efforts that must be carried out jointly and matters that do not necessarily involve all agencies.

### **The Need for further Development of Evaluation Methods**

Ex post evaluations of planning methods in Sweden addressed the methods for cost-benefit analysis. The general conclusion was that the methods as such appear to be sound and sufficient for the purpose. Questions raised concerned primarily current practises. A more serious question, however, concerned the quality of input data, in particular traffic data. It may, therefore, at this stage be more important to improve traffic data and to introduce a reliable system for documentation of such data, than to improve the methods for cost-benefit analysis. A previous evaluation study raised some doubt about application of the methods and asked if they had been adapted to the results wanted.

The evaluation of the Norwegian strategic planning process showed that the agencies were not able to evaluate impacts across sectors in a comparable way. The coastal agency and the civil aviation agency were hardly able to assess the impact of their own measures at all. In addition, the agencies faced problems in handling intermodal transport in a satisfactory way. There is consequently a need for developing compatible methods for all sectors.

There were shortcomings in respect of better methods for analyses of the specific strategic areas, which formed a new and important element of the Swedish strategic analysis. This applied not least to the analysis of maintenance needs. It is therefore important to improve methods for analysis of strategic issues.

There is obviously a need for further development of the evaluation methods and in particular some of the supporting tools such as the national and regional transport demand models. Current practises may to some extent be a bigger problem than the methods per se and it appears that it is highly important to ensure that input data are

of sufficient quality and documented properly. Development of the specific evaluation methods must be done in such way that they fit into the overall evaluation approach.