

*1.1 THE AIMS OF THIS REPORT*

In 1997 the European Commission, in collaboration with five Member States (Austria, France, Italy, Sweden and the United Kingdom), embarked on a programme to develop and test Strategic Environmental Assessment of transport corridors. Five corridors were selected out of the wider Trans-European Transport Network, once for each participating country. Each Member State then set out to:

- assist the development of methodologies to assess the environmental impacts of large scale plans, programmes and/or policy measures in the transport sector;
- show that SEA is feasible and that it is a valuable tool for decision-making;
- ensure consideration of sustainability in transport planning and development; and
- assist in deciding the choice between alternatives to solve transport problems in a corridor.

The studies were successfully completed in 1999 and are a major contribution to the advancement of SEA theory and practice. Their concrete example will help to demystify once and for all some of the concerns behind SEA's feasibility.

This report was commissioned from Environmental Resources Management (ERM) with the aim of reviewing the five pilot SEAs and drawing out the most relevant aspects of good practice. The Directorate General Environment of the European Commission presents this report as a contribution to the SEA debate in the context of transport, and to the wider discussions on environmental integration which have been a priority since the Cardiff Process was set up by the European Council of Ministers.

ERM carried out the study using the following approach.

- An initial review of the corridor study's final reports.
- A series of interviews with selected representatives of the teams involved in each corridor study.
- The circulation of a draft to representatives of the Commission services in the Transport and Environment DGs, and to the individuals interviewed (March-April 2000).
- The production of this final report, which takes into consideration the comments and suggestions made on earlier drafts.

This report owes much to the time and support of all interviewees who have provided insight into the work they have carried out. We would like to thank

in particular: *Andreas Käfer of Trafico, Austria; Bruce Davidson of Environmental Resources Management, United Kingdom; Carlo Benedetto and Maria Rosaria De Blasiis of the Università degli studi "Roma 3", Italy; Ernst Lung of the Bundesministerium für Wissenschaft und Verkehr, Austria; Inga Maj Eriksson of the Swedish National Road Administration, Sweden; Jean Marie Braun of INGÉROP, France; and Pierre Skriabine of the Service d'Études Techniques des Routes et Autoroutes, France.*

## 1.2 THE CORRIDORS AND THEIR ASSESSMENTS

The five studies looked at the following transport corridors:

- the Gothenburg-Jönköping Transport Corridor (Sweden);
- the Trans-Pennine Corridor (United Kingdom);
- a section of the Danube Corridor (Austria and neighbouring regions);
- the road Corridor between port of Ravenna and Venice (Italy); and
- the Corridor Nord between Paris and Brussels (France/Belgium).

The surface area covered ranged from 5000 to 22000 km<sup>2</sup>, two of the corridors were international, and the cost of the studies varied from Euros 100000 to 465000.

Despite setting out with a common set of objectives, each assessment has been developed in significantly different ways, reflecting the variety of planning systems and appraisal cultures in the Member States involved. This confirms that SEA applied to theoretically similar issues (namely, transport corridors) can actually result in radically different approaches and methods, depending on the context in which it operates.

Ultimately, the effectiveness of SEA methods will depend on the identification of the planning stages which are most likely to respond to an assessment and which provide the strongest lever to influence decision-making. Inevitably, this will vary significantly from country to country. But the studies also showed variation in the type of questions which each study had explicitly set out to address. For example, the question "*which option will meet the environmental objectives?*" aims to provide a direct link between a predicted (quantified or qualified) effect and a broad policy objective for the corridor. Quite a different focus, and level of detail, is implied by the question "*what is the best route for each option?*", where the decision to be taken is not a choice between broad strategic alternatives and scenarios, but one of spatial location.

## 1.3 LESSONS LEARNED AND WAYS FORWARD

### *On SEA and its objectives*

The objectives and scope of a corridor SEA will reflect available resources, the country's existing transport system (its characteristics and problems), and the planning system and assessment culture, especially in terms of:

- the level of strategic choices to be considered (e.g. solving the corridor's transport problems through multimodal and demand management measures, or seeking to accommodate traffic through new infrastructure avoiding sensitive areas);
- the link between the environmental component of the corridor assessment and the socio-economic and technical evaluations; and
- the type and timing of public participation and consultation to be carried out.

### *On consultation and public participation*

The pilot studies found that information sharing, consultation, and participation are all essential parts of the SEA process and have the greatest positive impact if initiated at the earliest stages. This also helps stakeholders to familiarise themselves with this relatively new method and thus increases their ability to contribute to the debate. The involvement of a broad range of interest in the process will also bring benefits such as buy-in and credibility for the results of the SEA. It will also widen the range of issues and the perspective from which a transport plan is being assessed.

The experience, albeit limited, from the studies does not appear to support the classic concerns in relation to the feasibility of consultation at the 'SEA level'. The assumption that this may be almost impossible given the scale of the issue and/or the size of the population potentially involved, and the fear that this will be too expensive and time consuming, could all be addressed – so long as there is the political will to do so.

### *On scoping as a critical stage in SEA*

The scoping stage is perhaps the most critical stage in SEA. In particular, the studies found it provides an important opportunity to inform and involve stakeholders in discussions on objectives, indicators, initial ideas on alternatives, and data availability. Scoping necessarily means focusing on what is necessary and sufficient for the type of decision that needs taking. It is an effort of fine balance whose success dictates the effectiveness of the SEA process in achieving its main goals.

### *On identifying alternatives*

This stage was judged by the various experts to be SEA's greatest and most constructive contribution to sustainability and environmental protection. Not surprisingly, it was found to be the most dynamic and intensive phase of the assessment process, particularly for those studies which looked at infrastructure and policy-type alternatives, and which involved some degree of consultation.

### *On assessing potential impacts*

Each study developed methods aimed at substantially different types of corridors, planning stages and levels of decision-making. Thus, the approaches to assessing impacts are not directly comparable, and they present both similarities and differences, which are worth highlighting.

All SEAs referred to environmental and sustainability objectives, showing that these can be helpful to both quantitative and qualitative methods. Indicators and constraint mapping were used in very different ways by each assessment team, however, a limited and tightly focused number of indicators seemed to provide the best balance between analytical assessment and clarity in the overall evaluation and interpretation of results. The recourse to - sometimes complex- assumptions was considered inevitable, as was the need for transparency in their formulation.

The use of Geographical Information Systems (GIS) and modelling – including land use models –, played a critical role in some studies and a rather secondary role in others. Its many advantages are described in *Sections 7.3 and 7.4*, however, it is equally important to note that GIS and modelling are not always essential in order to provide adequate and sufficient information for decision-makers. Much will depend on the level and type of plan being assessed.

#### *On the linkage to other assessments*

Overall, it was felt that consideration of the economic implications of different alternatives was necessary and helpful in providing a balanced picture when presenting results. Methods for inclusion of CBA-type analyses (cost-benefit analyses) varied greatly, also reflecting cultural approaches to planning and long established evaluation processes. For example, not all approaches led to monetary evaluation of impacts.

#### *On reporting*

SEAs based on an objectives-led approach will tend to present results in connection to these objectives. This makes results easily understandable and helps the reader and decision-maker to obtain an immediate understanding of their wider significance, especially if presented as simple questions. The use of maps was generally considered an effective way of conveying results with important spatial implications, but it was felt that it should be kept to a minimum.

## **1.4**

### ***ON THE FUTURE OF CORRIDOR SEAS AND MULTIMODALITY***

The methods proposed, and their application to demonstration studies, show that SEA of multimodal corridors is not only methodologically feasible, but also that it can be designed to fit within the national planning process and appraisal culture. This experience supports the arguments for a flexible approach to SEA, which aims to shape and blend the assessment process in harmony with the existing planning and assessment systems.

Difficulties such as data availability and transport demand forecasting remain present in many of the studies. However, rather than signalling a need to postpone the application of SEA, these obstacles call for further practice in SEA, since this enables solutions to be sought through the constant refinement of methods, by collaboration and investment at national and international levels (especially in the context of transboundary corridors).

SEA can make a positive contribution towards strengthening a culture of multimodality as well as optimising the combination of infrastructure and non-infrastructure solutions. Consideration of two or more modes of transport does not necessarily lead to a choice between modes (an either/or scenario). Quite the contrary. Especially in those cases where more than one type of infrastructure already exists, such assessment is likely to result in

recommendations for the improvement of several modes. However, transport administrations at national level will have to support and provide the legal and administrative means to carry out transport corridor SEAs, also clarifying the role of regional and local administrations.

Therefore, the way forward, both for SEA in general and for SEA of TEN-related initiatives in particular, will require:

- the strengthening of political support for SEA;
- the creation of legal and administrative conditions which enable the effective application of SEA to strategic transport initiatives;
- further effort, by the EU institutions and the Member States, to address the problems of international data, including – where it exists – the terms for its accessibility;
- a continuing effort to exchange and compare experiences throughout different countries, disseminating good practice, but also discussing the problems encountered and possible solutions;
- emphasis on the need for each country to understand the role of SEA –and therefore its scope and structure – in the context of their planning and assessment cultures; paying particular attention to the need to integrate SEA in the overall ‘evaluation effort’ which lies behind any policy or planning process.