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THE INCORPORATION OF THE ENVIRONMENTAL DIMENSION INTO FREIGHT TRANSPORT POLICIES

SUMMARY FINAL REPORT

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RESEARCH TEAM

Coordinator

Christian Hey

Rainer Röder

Ruggero Schleicher-Tappeser

EURES- Institute for Regional Studies in Europe

Freiburg

Germany

Partners :

Pieter Janse

CE (Stichting Centrum voor energiebesparing en
schone technologie

Delft

The Netherlands

Filippo Strati

Mario Ferroni; Marta Franci; Donata Bianchi;

Simonetta Cerilli; Margert Jay; Sauro Partini

SRS (Studio Ricerche Sociali)

Firenze

Italy

Malcolm Fergusson

IEEP (Institute for European Environmental Policy)

London

United Kingdom

Markus Maibach

Samuel Hess

INFRAS AG (Institute for Environmental
Economics and Policies)

Zürich

Switzerland

Mikael Togeby

Povl Skov; Uffe Jacobsen

AKF (Institute of Local Government Studies)

Copenhagen

Denmark

Eastern European partner

Dr. Károly Kiss

Budapest University of Economics

Dept. of Environm. Economics

H - 1828 Budapest, pf.489

Tel./Fax:+36-1-217 9588

E-mail: karolykissarenviro.bke.hu

I. OBJECTIVES

The main objective of the study was to examine the scope and the barriers for sustainable mobility in the freight transport sector. One of the preconditions for “sustainable mobility” is the integration of environmental considerations in the transport policy decision-making process.

The research compared the environmental objectives, the decision-making system and specific policy changes (infrastructure, taxation, deregulation) in Denmark, Germany, Italy, The Netherlands, Switzerland, UK and the EU between 1984 and 1994. It analysed the preconditions for the integration of the environmental dimension in transport policies. In an additional contract, the Hungarian transport sector was also examined (suppl. agr. n° CT940121).

The objective of this comparative approach was to identify general mechanisms of the integration process and to discover innovative approaches towards integration. Moreover, the research has been designed in order to provide orientation for the formulation of institutional and political strategies. Recommendations have been formulated on how the integration of the environmental dimension in freight transport policies could be improved on the national and the European levels.

The research has shown that integration is a very useful approach, but still a diffuse one. The basic idea is quite old, but as a definite policy, integration is quite young. It is still understood very differently in different countries and contexts. Integration in European countries has made considerable progress between 1984 and 1994 and further improvements can be expected. Nevertheless, any policy towards integration meets a high level of economic and political constraints. Therefore, in reality, integration will remain a patchwork, rather than the result of an ecological master plan. The study has shown that European countries could learn much from each other in this field, but those experiences cannot be simply transposed from one economic, political and cultural context into the other. Considering the still growing environmental harm caused by freight transport, a stronger reorientation of transport policies is definitely needed.

II. METHODOLOGY

Integration has been defined in a wide sense as the process of reconciling and mutually adjusting the objectives of any sectoral policy (in this case: transport policies) and environmental policies. It implies procedures for coordination and consultation, evaluation methods, and political decisions on priorities. Its objective is to achieve compatibility between environmental and sectoral targets.

The research was based upon a policy analysis. A first descriptive part compared the state and dynamics of integration. In the second analytical part, some of the most important factors determining the opportunities and constraints for integration have been analysed on the basis of a capacity theoretical framework. The third part reconstructed the history of special cases (i.e., taxation or infrastructure policies). The fourth part consisted of a systematic comparison of the three previous elements. In the fifth part, recommendations for the policy field in general and for the six countries and the EU have been formulated.

The evaluation of state and dynamics of integration has been carried out with a common methodology for the following eight subjects

- A) Policy Targets
 - Legal requirements
 - Strategic Targets for Transport and the Environment
 - Quantitative Environmental Targets

- B) Decision-Making Styles
 - Organisation
 - Procedures

- C) Actions
 - Infrastructure Policies
 - Taxation
 - Liberalisation, Deregulation, Privatisation

The evaluation focused on the “effectiveness” criterion. It is assumed that deeper environmental policies may be more effective and more efficient than additive or compensation-oriented. The depth of integration is evaluated on the basis of a “stage model”, extending from business-as-usual policies and growth oriented capacity extension to structural change and demand-side management based upon the objectives of sustainable development.

Furthermore, it is assumed that integration should be both active - to realise environmental objectives - and defensive - to reduce further damage from transport policy decisions. Finally, integration should be comprehensive in a double sense. It should be strong for all policies (horizontal comprehensiveness) and take place during all phases of the policy-making process (vertical comprehensiveness).

The core of the study (part 2) was to analyse the determining structural factors that may explain the profile of integration. The objective was to find major characteristics of the economic and political system, which offer opportunities and restrictions for integration. This has been done by applying a “capacity theoretical approach”. Capacities are defined as the resources of a system to promote or to adapt to policy changes. Economic capacities may be described as the technological and economic flexibility to adapt to environmental demands. Political capacities may be defined as the resources and possibilities of the government to make strategic decisions. Furthermore, its responsiveness to environmentalists’ demands are considered to be an important capacity). The relevance of “post-material” values in a society may be an important cultural capacity, since it defines the demand for environmental protection, as well as the willingness to participate in sustainable types of consumption. This general approach has been applied to the respective transport policy field. On this basis, eight hypotheses were formulated and verified in a comparative perspective.

The most important factors analysed were:

- the environmental pressures;
- the economic pressures, which are caused by problems of inefficiency, transport growth, and congestion;
- the state of environmental policies and the level of policy demands;
- the economic capacities to adjust to environmental constraints;
- the general characteristics and responsiveness of the political system, especially to environmental demands and the regulatory tradition of the country;
- the perception of the government and the administration to integration in general, and in different fields;
- the perception and positions of interest groups and relevant institutions (i.e., scientific experts) on integration,
- avenues for the public to block or to modify political decisions (referendums, access to court).
- the internal capacities for integration by the environmental or the transport ministries (including Organisation, Procedures, Resources, Scientific Forecasting);

The third part of the research - the case studies - tried to understand the integration of the environmental dimension in a dynamic and more actors centred perspective. The methodological framework was kept relatively open to the research institutes in order to adapt the analysis to the specific circumstances of their case. Most cases are in the fields of infrastructure planning and taxation.

III MAIN RESULTS

On the basis of the comparison of typical profiles of six countries and the EU, the degree to which the environmental dimension is incorporated in freight transport policy could be correlated with some characteristics of the political system. One can regroup the explanatory factors so that they can be related to different levels of analysis: especially policy targets, decision-making styles, and actions.

Policy Targets

As to policy targets, one can distinguish three groups of countries. First, Denmark and The Netherlands have the most ambitious principles and policy targets. Both are characterised by low social thresholds for environmental problems and a high level of popular pressure for strong environmental policies. Both have relatively strong environmental organisations and a greened party system. The environmental profile of most actors is relatively high and the governments have invested many resources into researching the environmental problems of transport and looking for options to mitigate them. Such countries have a propensity towards active integration.

At the other extreme we found Italy, which has a lower profile of environmentalism. One can argue that cultural capacities for the environment are weaker in Italy.

In the middle of this spectrum are Germany, Switzerland, UK, and the EU - but of different reasons: - strategic policy-making plays a minor role in the federalist countries Germany and Switzerland. Political culture is more reactive and less prospective. Comprehensive regulatory programmes are not a part of the UK’s approach, because this would not fit into the neoliberal model promoted by the government. Nevertheless, the UK has formulated some ambitious targets within its Sustainable UK strategy. The European Commission has chosen a cautious approach, despite having a clear concept of the environmental problems of transport growth. This may be explained by the cautious anticipation of national preferences. A consensus on an environmental transport policy among the Member States is difficult to find.

Decision-Making Styles

The profile of the countries is different if one analyses the quality of the internal coordination and consultation mechanisms - also called decision-making styles.

The Netherlands, Denmark, Switzerland, and the European Commission have developed an advanced level of interadministrative coordination and consultation. This seems to be a typical characteristic in consensus-oriented political systems, which rely on the negotiation between different policy-networks and social coalitions. The Netherlands, Denmark, Switzerland, and the European Commission share certain capacities for long-term policy design: -that means the perception of long-term trends and their environmental and economic risks, as well as the formulation of long-term strategies. This seems to be an important precondition for the environmental dimension of transport to come onto the agenda. On this basis, there is a certain preference of the administration towards active integration, which means a transport policy based upon environmental targets.

The capacities of the decision-making system are somehow weaker in Switzerland. These three countries (and the Commission) furthermore, share a relatively open approach to different interest groups, including environmental interests in transport policies. Traditionally, transport policy networks are relatively closed, but in the discussion on infrastructures and taxation, one can find opportunities for participation during the relatively early stages of the policy-making process.

Once more, Italy is on the other side of the spectrum, in addition to Germany and the EU Council. Italy is relatively open to interest groups - but the environmental profile of interest groups is low. Germany and Italy are more characterised by a competitive political culture, both within and outside the administration. Strategic capacities of the administration are low, because of the sectoralization and fragmentation of the political system. Participation in Germany offers opportunities in the later stages of the political process rather than early on. Under such conditions, even defensive integration may be weak. On the EU level, too often, a closed and sectoralized decision-making process takes place, which leaves fewer opportunities for participation or interservice coordination. This may take place on the national levels to a certain extent. The only opportunity to influence decision-making from the outside is through the European Parliament, which has recently received some rights for participation for some policy fields. In between those extremes are the UK and Switzerland, which have little strategic capacity but offer some opportunities for participation.

Actions

The interesting result of the overall research is that the correlation between decision-making styles, policy targets, and actions is relatively weak. The combination of factors which have an influence on actions is different to the factors influencing targets and the decision-making system. Actions may be best explained in a capacity-theoretical context. Economic capacities play a central role in this context.

In terms of current and planned policy changes, Switzerland has the highest level of integration. This could be explained by strong economic and financial capacities. The level of infrastructure investments in Switzerland is the highest in Europe. The railway network is dense and the share of railways in freight transport is relatively high. Furthermore, politicians and the Swiss people show a high willingness to pay for the shift of Alpine transit to environmentally friendly modes. So adjustment costs are lower and resources are higher than in other countries. Furthermore, the relative autonomy as a non-EU Member State to introduce fiscal and non-fiscal incentives to reduce road transport still are relatively high. Strong popular pressure against Alpine road transit and the instrument of a popular initiative further strengthened the Swiss policy orientation towards integration.

As shown, a certain degree of economic autonomy was also important for the UK to introduce its CO₂-fuel tax.

On the other side of the spectrum are Italy and Denmark - as well as partially the UK and the EU. In those countries, the railways capacities are low for freight. Domestic freight transport primarily relies on road haulage. A strategy towards modal shift only would have limited environmental benefits in the short and medium term. The UK government, therefore, opted for cautious steps towards a demand-side-oriented transport policy, thus cutting down road infrastructure investments and applying taxation as an instrument.

At the EU level, the major barrier for integration is the divergence among Member States and the lack of leadership for a clear environmental strategy. Potential leaders so far have held a defensive position against transport policies from the EU (especially in the case of deregulation, taxation, and infrastructure policies).

An intermediate position is held by Germany and The Netherlands. Railways still play an important role for a growth oriented capacity extension. The market share of railways is still relevant in Germany, because of the regulatory tradition of German transport policies, which only has been changed recently. The actions in The Netherlands may be rather explained by the strong economic pressures (congestion) and the needs to adapt to the foreign transport markets.

Conditions for Defensive Integration

A special case is defensive integration. There are several factors which may contribute to defensive integration: the participatory and consensus-oriented political culture of The Netherlands; strong citizen rights in Germany; sometimes the opportunity for popular initiatives (Switzerland); strong environmental legislation (i.e., The Netherlands); or the new opportunities for regional participation in Italy. However, they are not sufficient. No country has established a coherent system of environmental safeguards, which prevent environmentally harmful political decisions. But most countries have a few elements for defensive integration, which help to modify and justify transport decisions while maintaining the prevailing growth-oriented rationale of transport policies.

4 SCIENTIFIC INTEREST AND POLICY RELEVANCE

4.1 Scientific Interest

Integration is a new and diffuse policy approach. It applies to many totally different subpolicies, including the definition of environmental objectives, new coordination mechanisms, and transport policy changes. Furthermore, an operational concept for integration is in its initial stages - so that little policy output can be observed. Much is still in the pipeline. There are completely different definitions and approaches for integration. For the study of integration this means essentially, that the understanding of successful agenda-setting processes has to be improved. Furthermore a less complex approach focusing on the different elements of integration (targets, decision-making styles, policies) would help, to improve the understanding of single elements of integration.

The comparison could generally confirm essential elements of the capacity theory. Institutional, economic and cultural capacities are indeed important factors, to understand the Aprocyclical characteristics of many policies and their failure to formulate correcting strategies against prevailing and unsustainable market trends. Yet a purely structuralist approach fails to understand the dynamics of interaction between the concerned policy networks. The Dutch case was an interesting deviation from theoretical assumptions: despite of a very low railway share in freight transport the Dutch government invests heavily for a countercyclical strategy in favour of railways. This suggested that the government still has some scope and some autonomy to try to influence prevailing market trends. Therefore further case studies are necessary, to really understand the process of integration.

The analysis could refute some important concepts of environmental policy-making - especially the stage model of environmental policies. One could discover different policy paths, but not a sequence of stages. A policy approach in favour of railways can be observed in Switzerland, before technical measures have been fully implemented. The UK is an example for a demand-side-oriented policy approach, without applying a structural change-oriented approach beforehand. Most countries are capacity- and growth-oriented, which is independent from their level of environmental policies.

Lastly, functionalist approaches, assuming that environmental policies react to environmental problems, can be refuted. Objective problems may be strongly perceived in one culture, whereas they do not matter in another. Even where strong environmental problems are perceived, this does not necessarily lead to action: especially if important economic and institutional capacities are missing. Cultural capacities are important - they cannot be well understood in a policy science framework. Their analysis requires a sociological framework.

4.2 Policy Relevance

The project has a high policy relevance especially for the environmental ministries but also well for the transport administration. The research raised a number of important institutional and political preconditions for integration, among the most important are:

- Clear and legally binding environmental targets for the transport sector: without such targets there is little need for coordination between environmental and transport related authorities. Environmental authorities need a property right, to become relevant in policy negotiations.
- Resources: The quality of integration depends on the resources, in terms of staff, scientific knowledge and research capacities and legal rights, responsible authorities can invest into the development of effective instruments and procedures for integration.
- Participation: Integration requires strong citizen's rights and open policy networks, including environmental interest groups at all stages of the political planning process.
- Subsidiarity: A system of mutual checks and balances between environmental and transport related activities must be developed at all levels and between them. The higher levels should be more responsible for safeguarding global commons, the lower levels more for local and regional issues. Correspondence of impact and need assessment, evaluation, financing and planning levels should be developed, to avoid strategies of shifting responsibilities between different political levels.

- Alliances: There is a potential to strengthen alliances between environmental and other interests. Integration is especially feasible under a regime of fiscal austerity - as a search for efficient solutions.

Implications :

On the basis of the above analysis, the research team has discussed and formulated 12 strategic recommendations which should guide the more specific recommendations for each country and the EU.

- Integration requires an active diffusion and communication strategy among the long-term, problem-oriented expert community, the networks working on solutions, as well as the decision-makers and lobbyists.
- Integration requires strong capacities for prospective, strategic thinking and policy-oriented knowledge for technically-viable and politically-acceptable solutions. These should be built up within the administration of within closely-related institutions.
- Alliances between environmental, fiscal, social, and spatial planning interests on transport should be explored more systematically, even if those interests may be ambivalent towards the environment.
- Integration requires well-defined objectives for the transport sector as a precondition for successful coordination mechanisms. Objectives should be jointly defined by the environmental and transport administration.
- Integration requires a powerful environmental department in the transport ministries or a powerful transport department in the environmental ministries to promote and defend environmental aspects. Coordination and consultation mechanisms should be strong and should be applied throughout the life cycle of policies.
- Participation for environmental groups and experts should be strengthened during all phases of the decision-making process - both on a strategic and a technical level.
- According to the subsidiarity principle, any centralisation of competences in transport policies requires proof of its added-value compared to a decentralised solution. In any case, the level that decisions are made, the level of allocation of costs and benefits, and the level of environmental control and assessment systems should coincide as much as possible.
- A system of mutual checks and balances between the different political levels should be developed. Local action has to respect national or international safeguards to protect common goods. National or international action has to respect local and regional preferences to protect the environment both in an active and a defensive sense.
- Strategic Environmental Impact Assessments include both a participatory planning procedure and an evaluation methodology. On both levels, more investment in knowledge and experience is necessary.
- Infrastructure investments should set clear priorities on the environmental modes and capacity-optimising technological systems, even if they do not have a major environmental benefit in the short run. A revival of the environmentally friendly modes must be seen as a long-term strategy.
- As long as no consensus is found on the exact level of external costs, a gradual (but immediate) strategy should be chosen to increase road transport costs, leaving individual countries the freedom to proceed more quickly. If taxation meets strong resistance, other instruments for the internalisation of environmental impacts (including regulatory ones) should be chosen.
- Integration is not a substitute, but rather it is complementary to the improvement of environmental standards, nature protection, and air quality norms. Therefore, this traditional approach should be continued and further strengthened.