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TRANSPORT AND RISK COMMUNICATION

SUMMARY FINAL REPORT

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I. OBJECTIVES

The context

In the context of European integration, transport is expected to play an important role by increasing economic competitiveness of the European economy vis-à-vis international competitors. In this perspective, liberalisation of the transport sector has been promoted in order to facilitate internal exchanges. Trans-European networks are to be developed in the same perspective and they are planned on the basis of national proposals.

The main trend in the transport sector is the continuous growth of road transport. That seems, for many reasons, the best way to meet the economic requirements of ever more flexible systems of production. The increase of road traffic poses a major environmental problem because road transport is responsible for many types of pollution, both local and global. Thus the modal shift to other transport means can be considered as a big challenge for Europe, but also for many Member States.

The research

In this context the project aimed at analysing, in a comparative way, the process by which environmental threats are taken in account by transport policies in the three investigated countries. Four main objectives were considered :

- i. to understand the processes by which environmental impacts are conceptualised in the different socio-political contexts;
- ii. to analyse the way they confront socio-economic costs and benefits;
- iii. to analyse the inter-relationships between the different levels of policy-making in the transport policies and environmental policies;
- iv. to examine theoretical models on risk communication and the extent to which they are able to explain the social debates that are developing around transport projects.

The comparative approach should allow understanding of the problems and difficulties which European policy is confronted with when different political cultures, different socio-economic structures are to be integrated, while at the same time taking account of environmental and economic objectives in a combined perspective.

II. METHODOLOGY

The methodology of the research project was mainly based on national case-studies, because it is clear that social debates on transport project and policies are still mainly national, even if European policies play a significant role in the evolution of national policies.

The first step was to elaborate a common framework in order to analyse social debates : the risk communication concept was elaborated to build an analytical framework. At the same time it was necessary to formulate some tentative assumptions on sociology of transport in order to make some links between social changes and transport trends.

Each partner carried out a detailed case-study in their own country. These case-studies were quite different from each other due to the fact of very different conditions in the three countries. The Dutch case-study focused on a project that clearly illustrates the conflict between a big infrastructure project that aims at alleviating global and national pressures (pollution, congestion) on environment on the one hand, and local environmental concerns on the other hand: the process of political discussion, the procedures and institutional settings of negotiation are at the heart of the analysis. On the contrary the Portuguese case-study was concerned with an infrastructure project that derives from a strategy of economic development: environment is a minor consideration and the described process shows the progressive interaction of local environmental concerns with European legislation in public debate. The Belgian is another case yet again because the political fragmentation of state control, combined with the specific economic situation of the region under study, leads to something like an instrumentalisation of environmental concerns from the part of many actors.

In order to compare these three case-studies, the different partners contributed in a specific way to the research : the Portuguese team made a synthesis of European policies and of economic implications of transport policies; the Dutch team was mainly in charge of providing theoretical insight and tools to analyse risks and the way they are dealt with in the public debate; the Belgian team mainly focused on the way transport systems can be

analysed in sociological terms. These three contributions provided all the partners with some common tools of analysis and helped them to interpret the case-studies in a comparative way

The national case-studies each included two main parts :

- an analytical description of the situation of transport systems, transport policies and environmental policies in the different countries : this step was intended to give a clear idea of the main trends of evolution of the transport systems, and of the constraints the different states are facing.
- an analysis of a case where environmental constraints and impacts are coming in conflict with new transport infrastructure. This step was centred on the social and political debates, giving a specific importance to the different levels of policy-making and decision-making and to the way they are treating environmental risks.

A final chapter tried to give some comparative views on the three main topics of the research : transport and social change, risk communication processes and European policy implications. The main results of the first two topics are in the "Results" (see III) and of the third one is in the " Policy Implications " (see IV. b).

III. MAIN RESULTS

Results can be summarised around four questions that allow general conclusions and comparative views. Comparison is primarily used as a way to set light on the national cases and to understand the European dimension of the transport-environment policies.

1. Concerning transport systems and social change

Upgrading/downgrading. Whatever the European policies are, internationalisation of economies implies that international traffic of goods is increasing. This growth is not only quantitative but qualitative as well : flows are diversifying. This process is going to break up the different transport networks, especially if their management is increasingly divided between different policy levels (from local to international), which is encouraged by liberalisation and the development of specific European networks.

Coupling/Decoupling. The concept of coupling/decoupling is proposed to understand two developments at the same time. The first one is the development in which transport systems are multiplying (e.g. the post services with many private and specialised services added to a public service) and are using different infrastructural networks and different transport means. This namely implies a diversification of management systems . Because of this decoupling the process by which these transport systems are physically and socially connected becomes crucial to transport development : multi-modal platforms can typically be analysed in this perspective The second development relates to ways in which all these transport systems are connected with territorial units : transport flows can have environmental impacts (through infrastructure and traffic) on a specific region without bringing economic benefits in this region. This development refers to the coupling/decoupling of transport flows and local/regional economic and social structures.

Distributive effects. European transport policies, but also many national policies, appear to be based on the classical belief on the positive contribution of transport to economic development. But, if transport generates economic growth, it also has many distributive effects that have to be taken in account. International transport is more and more important for national and local economies, so that many local projects are developed in this perspective and give rise to political debates.

Institutional and Side effects. Moreover, the combination of upgrading and decoupling of transport systems has many other consequences like changes in the spatial structures, management changes that are more visible when socio-political systems are more fragmented.

In summary it could be said that transport systems changes probably are going to integrate European countries and to divide them at the same time. It is easy to understand, for instance, that the development of a high-speed network completely change the possibilities of different regions : some metropolitan areas are well connected but remote areas in different countries can have more difficulties (relatively or absolutely) to keep good links with big cities. Moreover the development of new transport networks (especially international) is carried out through new management systems whose local actors can be excluded. These processes could only be understood in depth by integrating economic, social and political analysis.

2. Concerning national situations and European integration

National situations deeply differ. Portugal has mainly to deal with an improvement of its transport system and geographical/political constraints have obliged it to develop road transport as a priority. European institutions are involved in this process not only by funding new infrastructure but also by providing local groups with resources to argue for a better integration of environmental requirements.

The Belgian and Dutch cases studies showed that congestion is an economic factor that gives rise to changes in transport systems. These two countries try to preserve the favourable position of their transport sector and to decrease economic and environmental costs of road transport growth. Wider European thinking does not play a leading role with regard to risk communication in the Dutch policy except in that sense that Dutch policy anticipates the trends to shift from road to other transport means. In a different political (federalisation) and economic context, the Belgian case study showed how transport changes are increasing fragmentation processes and conflicts between regions and institutions, making a global and coherent answer to the environmental challenge very difficult.

3. Concerning integration of environment in transport policies

Integration of environment in transport policies implies the consideration of numerous impacts, from local nuisances to contributions to global change. The Portuguese case study illustrated the classical situation of conflict between national economic interest and ecological preoccupations. For both, Europe plays an important role, but integration will only be reached by changes in the political system and management of transport. The Dutch case study clearly showed that a project, even with positive economic and environment aspects when assessed at the national level, can give rise to strong oppositions at the local and regional level. The integration is a multi-level process during which decisions have been achieved by using a mix of different approaches (research and techniques, negotiation and debate, centralised decisions) combined in complex processes of public consultation. Finally the Belgian case study illustrated the complexity of a decision-making process when the different scales of space and time are to be included in the discussion in order to achieve a consensus. All this tends to prove that transport policies, especially when trying to include environmental objectives, are to be developed and discussed at different levels and by taking different scales of space and time into consideration.

4. Concerning socio-political debates on transport and risks

It could be concluded that this integration might be possible only by opening different debates and forums and trying to coordinate them. It should be emphasised that most environmental impacts of transport projects and infrastructure are not precisely identified and have no clearly assessable impacts. They are risks, with certain levels of uncertainty. Public debates on transport projects give prominence to environmental uncertainties that are intertwined with social-economic uncertainties. The project offered a framework for analysing these uncertainties in an institutional context.

Four strategies were identified for dealing with these uncertainties:

1. the *decisionist* strategy that leaves the decisions to the formal authorities;
2. the *market* strategy that leaves uncertainties to the market forces;
3. the *technocratic* strategy that tries to cope with uncertainties by a scientific assessment of environmental risks as well as costs and benefits;
4. the *participatory* strategy that aims at a debate in which the stakeholding parties try to come to an agreement on how to deal with these uncertainties. An important aspect of such an open debate should be that trust is restored among the parties involved.

It was possible to describe the development of the debate as processes of mobilising and amplifying uncertainties on the one hand, and of reducing and closing uncertainties on the other hand. In Portugal and The Netherlands, pressure groups have raised uncertainties related to the environmental and economic benefits of the project under research against the government. In Belgium, economic actors have given prominence environmental uncertainties and the government itself raised uncertainties about the economic future of the region under research to gain authority for their plans. In Portugal and The Netherlands, the main instruments for reducing uncertainties proved to be decisions by the national government. In The Netherlands at a local level, participatory strategies acted as a closure mechanism. The results of the case studies indicated that a merely decisionist strategy, which is not accompanied by a scientific and participatory debate, is no longer a politically acceptable way of deciding about large and complex projects that are surrounded by uncertainties, as were the transport projects investigated in this research.

In all countries, technocratic strategies were used by different actors, including pressure groups, both to mobilise and to reduce uncertainties. In none of the cases, however, scientific assessments were sufficient to reduce the uncertainties in the debates on transport and environment.

Across the countries, there is a tendency of environmental protection becoming a more distinct and important arena of political debate; at the same time this arena is broadened from headlining single issues to thematizing environmental efficiency in relation to economic efficiency and physical planning. In connection with this development, the scale of the environmental efficiency problems transcend the national scale. The supranational level (in this case the EU level), is mostly missing in the public debates.

These results indicated that risks, including socio-economic risks, can only be dealt with by trying to elaborate and formulate long-term scenarios that people can trust. Trust is active in the sense that it has to be built by a process of discussion (debate), including local aspects and local problems, that assures local actors of the reality of social solidarity through space and time.

IV. SCIENTIFIC INTEREST AND POLICY RELEVANCE

a. scientific implications

Social evaluation of transport, whatever aspects are to be examined, seems to lack firm scientific concepts and methodology.

On the one hand, economics provides the main scientific resources of transport planning and policy. This can be understood by the common beliefs in the positive economic contribution of transport to economic growth. On the other hand, technical developments are expected to provide progressive improvements in traffic management. Environmental impacts, from local to global, bring together these approaches, but it appears difficult to define criteria to balance benefits and risks, especially because the distribution is very different at the different scales. Moreover the decoupling of transport systems leads to different evaluation criteria with respect to the transport means, the transport flows and the scales to be considered.

In brief, transport infrastructure and networks are so central in the development of modern societies that evaluation should be much more complex than usual impact assessment. Social consequences of transport changes are insufficiently known and assessed.

To develop an integrated science of transport

An integrated approach of transport policies and projects should be developed. From a sociological point of view, it should take into consideration the following items to be balanced :

- spatial structures and economic distributive effects;
- modes of production and requirements ;
- consumption styles;
- environmental impacts at various scales of space and time;
- management models;
- public funding.

Trans-European networks might provide good opportunities to develop integrated research on transport problems.

To take risk and not only impacts into consideration

An important finding of this comparative research was that transport cannot be assessed only in terms of impacts and quantified indicators. Transport systems imply so many changes and impacts, at various scales of time and space that risk theories look much more suitable. Shifting from impacts to risks implies further research into the dynamics of risk debates and into the different strategies that can be used to reduce uncertainties.

b. policy relevance

Policy implications of these case studies will be summarised by emphasising three main topics.

Taking distributive effects into account

European transport policy will have to give more attention to the local and regional effects of transport projects and development. The distributive effects of transport will take more and more importance as big networks are built. These new networks will induce spatial restructuring that local, regional and national authorities will

have to deal with. They probably need to have global scenarios in mind to make their own policies and decisions, and to obtain social acceptance of land use and territorial changes.

Goods transport and other transport (including urban and local) cannot be separated completely because local authorities have to connect labour force market and local economies with international networks. That will imply new forms of cooperation between private and public actors and between the different management systems of transport. So even the social aspects of transport systems have to be included in transport policies, at least by giving local and regional authorities or less-developed regions the resources to adapt their planning and transport management.

Increasing Europe's role in assessing environmental impacts and to coordinate transport and environment policies

There is no doubt that European integration as much as economic internationalisation are powerful factors for transport growth and of new infrastructure developments. But Europe's role cannot be confined to big infrastructural projects and networks : European institutions also are intervening in funding infrastructure through the Structural Funds and regional policies and, overall, the TransEuropean networks will induce deep changes in the spatial structures of many regions and countries. The coordination of environment and transport policies has to be improved at the different scales : by making environmental assessments not only of local projects and specific infrastructural projects, but also by evaluating the TransEuropean networks and the different policy tools and their consequences for countries, regions and localities. If European institutions are not involved in the whole process, it is likely that back to front processes will create many local and regional conflicts that will obstruct the decisions. Strategic environmental impact assessment is expected to be an important policy instrument in the future, but as the results indicate this instrument should be accompanied by organisational platforms for participatory debates. In the participatory debates the different aspects of uncertainties could be negotiated and agreed upon by the stakeholders involved. To address transport and environmental problems on higher scale levels, these platforms should not only be established locally, but extend to the level of the EU.

Involving European institutions in local projects design

If one considers European environmental regulations (EIA, technical norms, outstanding natural areas), Europe can be seen as an environmental actor as much as a transport actor. European involvement in transport especially is relevant where a project has transnational environmental, social or economic dimension. By establishing organisational platforms for participatory debates at the European level, as stated before, European institutions can play a more important role in projects with transnational dimensions.