IS SYSYPHOS STILL ROLLING THE STONE?

Lessons from three decades of urban transport planning in Norway.

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1. THE PROBLEM................................................................................................................................. 3
  1.1 URBAN TRANSPORT AND ENVIRONMENTAL CONCERNS.......................................................... 3
  1.2 THE ANALYSES.......................................................................................................................... 4
  1.3 SELECTION OF CASES............................................................................................................... 7
2. THE CASES. ...................................................................................................................................... 8
  2.1 CASE 1. NATIONAL ROAD PLANNING...................................................................................... 9
  2.2 CASE 2. TRANSPORT PLANNING IN CITIES......................................................................... 11
  2.3 CASE 3. THE ENVIRONMENTAL CITY PROGRAM............................................................... 14
  2.4 CASE 4. COUNTY PLANNING............................................................................................. 16
  2.5 CASE 5. CAPITAL CITY........................................................................................................... 18
3. TRENDS IN RESULTS AND EXPLANATIONS ........................................................................... 20
  3.1 TREND IN RESULTS? ......................................................................................................... 20
  3.2 TREND IN EXPLANATIONS?............................................................................................... 20
4. SYNTHESIS: PLANNING, CHANGE AND SYSTEM DEPENDENCY ......................................... 23

REFERENCES......................................................................................................................................... 26
1. The problem.

1.1 Urban transport and environmental concerns.

The topic of this article is how efforts to introduce environmental values to urban transport policy in Norway have been accomplished during a period of 30 years. In general terms it is about how new policies are adapted in established structures.

Policy goals

Environmental policy is not a constant entity through the period in question. Environmental policy as a formal public policy was established in the early 1970s in Norway\(^1\). Originally, environmental concerns in urban transport meant in the early years taking account of the interests of public transport and non-motorized travellers, traffic security and adaptation of physical solutions to the urban environment with regard to air and noise pollution levels. This is done along the lines of both pioneering and contemporary work on options for urban mobility and environmental implications (Buchanan et al. 1963, Appleyard and Lintell 1972, OECD 1971, 1974). Later, while the original intentions regarding environmental reforms have been maintained, a focus of sustainable urban transport has been added. This did not mean not a change but an expansion of environmental policy. A reduced need for individual motor traffic through integrated policies on land use and public transport, and possible restrictive measures on private car use, was added. One key element in this perspective is that sustainable transport has to meet the basic access needs of individuals safely and efficiently, and consistent with the demands on health, distributional effects, equality and environment\(^2\).

Planning, a means for policy reform

A means to moderate or change established policies is through planning. Planning means elaborating new goals and means with the intention to substitute or moderate existing policies. The element of reform in planning is conditioned by the range of deviance or change from the existing policy. The elaboration of new plans should ideally be founded on

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\(^1\) Ministry of Environment established 1972.

\(^2\) Reference: environmental sustainability in transport
new knowledge derived from an analysis of the empirical problems. The expected effect of new plans and planning processes is a change of goals and means, and in turn change of outcomes and the real situation. In our cases special planning initiatives and processes in the urban transport sector were applied as instruments to create different outcomes and realities; i.e. better environmental conditions.

Results
The 30 years’ experience tells a story of fairly unsuccessful environmental reform in the urban transport sector. Several independent evaluations have indicated that all major environmentally guided reform efforts in this period have had only moderate effects, with the environmental problems unchanged or even worsening (Samferdselsdepartementet 2002, SFT 2004, Nielsen et al. 2000, Lerstang and Mydske 1977, Mydske et al. 1992, Sager 1994, Opedal and Strand 1998).

Our empirical data of results relate to five cases of urban transport planning through the 30 years’ period: National road planning 1970-73, transport planning in cities 1989-92, city programs 1993-2000, county planning 1993-2000 and capital city transport planning 2005-. These cases represent the main trend of national initiated environmental reform efforts in the sector in this period.

Our definition of results relate to two criteria:
- production of environmental policy alternatives
- change of outcome; transport policies changed

1.2 The analyses
The criteria of results constitute the dependant variable to be analysed and explained. This is done in a theoretical institutional perspective. That means we look at institutional structures and processes as parameters of explanation. Within this perspective we apply four different angles or dimensions as type of explanations, and which edit the analytical discussion and reflections:
- the concept of asymmetry between change and continuity
- the role of knowledge
- problems of implementation
- the challenge of cumulative learning
Firstly, we see reform as a problem of asymmetrical balance between continuity and change. The challenge of reform is to change and overcome this imbalance. The strength of imbalance is in itself an explanation of results; whether and to what degree new plans are produced and policy changed. Continuity may be regarded as normal and change as deviation. Continuity is naturally embedded in institutions and organizations. It is an “automatic” character, it demands fewer extensive deliberations and decisions because it represents “business as usual”. On the opposite, change means deviation from a given course, an established order and routine and demands extra resources and efforts. The relation between continuity and change is in the outset in imbalance.

The focus on the balance between continuity and change – between an old order and a new one – thus highlights basic conditions for generating and accepting change as a step towards improvement. Such conditions include distribution of power, knowledge and resources and capacities’.

Pressure for change may develop slowly over time or be more acutely initiated and linked to perceptions of crisis, as one initial condition for change. Crisis is related to dissatisfaction with existing policy and practice. To generate effects perception of crisis should be shared by both agents of change and guards of existing order.

Secondly, when change does not occur and the existing order is preserved, one question concerns the state of knowledge of the problem, as basis for reform decisions. Is the lack of change due to a lack of relevant knowledge of the problems to be solved?

What is the role of knowledge in reform processes? In theories of planning, the role of rationality and knowledge are central topics and regarded as critical conditions for change and reform (van Gunsteren 1976, Camhis 1979, Friedman 1987, Faludi 1973). The rationale of planning is to generate change through the production of new knowledge. New goals demand new and relevant knowledge and documentation. Planning promotes rational processes as means-end analysis, evaluation of alternatives, holistic evaluation and developing strategies within specific time horizons, which is essential for knowledge-based change.

Knowledge may, however, be seen as bounded by institutional contexts. Planning theory gives insight into the institutional conditions for bounded rationality, with implications for the access and search of relevant and new knowledge by different sources, and into conditions for different forms of knowledge (Forester 1989, Benveniste 1989, March and Simon 1958).
Reviewing the history of environmental city and transport planning over the past 30 years we consider whether failure was due to inadequate knowledge, such as alternative and new knowledge, sources of knowledge, and professional or lay knowledge.

Thirdly, change of outcome (criterion 2) is dependent on the implementation of plans, which, however, is conditioned by institutional and authority structures. When adequate knowledge is available, but policy and decisional behaviour remain unchanged, the problems may be related to specific implementation structures and processes. When consensually based reform efforts fall short, the question of power and power structures becomes naturally prerequisites of reform (Sabatier 1986). The focus is directed especially towards the relation between the planning institutions as reform agents and the established allocative and implementation system.

The challenge and responsibility of implementation is often regarded as separate from that of generating new policies and of making political decisions. This is reflected in the literature on implementation (van Meter and van Horn 1975, Mazmanians and Sabatier 1983). The failure or success of the implementation of plans may depend on whether planning is organized marginal or central to the process of power in the relevant field, the level of conflict and the capacity of implementation. This is especially important when implementation is based on consensus. In city and transport planning, the division of authority between the different segments of government is decisive, both within the cities and between the different layers of municipalities, regions and state authorities. The implementation of plans is dependent on authorities who control budgets and have regulative power, and their acceptance and incorporation of the plans.

Fourthly, sequences of reform attempts are occasions of learning. In a time sequence the transfer of experiences may occur as a cumulative process in decisional systems. The question of learning mechanisms in the sequence of cases is a next step in our discussion of how and why it is difficult to change a long-running process. This is a matter of institutionalized mechanisms depending not just on random individual possibility occasions (Glosvik 2002, Røvik 1998). Can we find continuous mechanisms of learning through the period in focus, where especially the later cases build on experiences from the previous cases? The history of city and transport planning in Norway is one of repeated attempts to
change city and transport policies in a more environmentally friendly direction. Is any lack of change also due to lack of mechanisms of learning?

We focus on two aspects of learning at the level of organizations. One is whether and how knowledge of previous outcomes is systematically transferred to succeeding cases over time. The other is the role of special actors (politicians) and their contribution to learning in decisional systems.

These four perspectives are applied on a sequence of cases. They are rooted in organizational and planning theory. As such, the theories have strong inductive elements; they can be seen as accumulated and systematized empirical experiences from similar institutions, organizations and situations. The theories reflect real and empirical problems. In this sense they may be a valid focus of analysis on a more general basis across time and space.

1.3 Selection of cases
First shortly about some of the context to where the cases belong:

In the administrative system of transport in Norway the responsibility for planning and operation of various forms of transport and associated infrastructure is split between a number of actors at the national, regional and local levels of administration and decision-making. Planning of road and public transport infrastructure involves all three levels of decision-making. Responsibility for the quality and operation of bus transport systems lies with the county administration, while subsidies for local rail transport in general are controlled by the Ministry of Transport and Communications. The municipalities are in a key position in relation to environmentally motivated efforts in land use and transport planning, responsible as they are for all land-use planning and decisions, including parking policies, in accordance with the Planning and Building Act. There is a division of responsibilities between the national and county environmental authorities and the municipalities regarding the setting of relevant environmental goals and standards. The higher levels of administration, such as the Ministry of the Environment, will encourage and support the municipalities in their setting of environmental goals and in practical work, and will be engaged in setting the minimum standards to be met in short or long-term planning, e.g. noise or air pollution levels.
Looking back over the past 30 years of transport planning in the major urban areas in Norway, we can identify essential *national initiated planning* initiatives to break the trends of increased car use and dependency, environmental deterioration, public nuisance and health problems and traffic safety. Common to all these are the following:

- Initiatives taken by the government aimed at obtaining changes in trends through innovative and holistic approaches to transport and land-use planning at the local level, which involve key ministries such as the Ministry of Transport and Communications and the Ministry of the Environment.
- Professional support to local planning organizations, usually by issuing of guidelines and booklets offering professional guidance.
- Financial support for local planning.
- Planning initiatives, commonly of an ad hoc nature, and not implying any specific institutional changes with respect to formal responsibilities for planning, financing or decision-making.

In this context the selected cases are:
- County planning in urban regions (1993-2000).
- Capital city planning - Oslo package 2005 - ?

2. The cases.

2.1. **General results**

During these 30 years there has generally been no essential improvement in the environmental problems related to urban transport, the key areas of environmental transport planning. As part of a reporting of a national research program on local transport and land-use policies, a team of Norwegian researchers observed that for more than three decades there had been fairly broad political consensus about the (environmental) goals for transport and land-use policy in Norwegian urban areas (Nielsen et al. 2000). Nevertheless, the study reveals that there are notable gaps between
stated goals and results. Urban sprawl and land use today conflict with the stated goals of more concentrated and less transport demanding land-use patterns. Changes in use of modes, from individual car use to public transport, or other sustainable modes, have not been achieved. Car traffic continues to grow, while public transport, walking and cycling are losing market shares, e.g. in the period 1970 and 1995 there was more than 100 percent growth in car traffic across the city border of Oslo. The number of persons killed or injured in traffic accidents has been approximately 12 000 yearly since 1970 and traffic accident rates are still high in urban areas (Elvik et al. 1997). Traffic noise and air pollution is regarded as one of the major remaining environmental problems in Norway, and one that affects the largest number of people (SFT 2004). Road traffic is clearly the largest of all sources of nuisance, and accounts for about 70 percent of noise annoyance in Norwegian cities. In addition, urban sprawl has been increasing, along with a significant reduction of green spaces within city areas (Nyhus and Thorèn 1996).

Regarding remedial actions, the local environment and the urban population have benefited from some, not very large, environmental improvements, mostly in relation to road traffic. However, urban and transport development today is regarded as being no more sustainable than previously with respect to global environmental issues (Nielsen et al. 2000).

2.1. Case 1. National road planning

*Description* The Norwegian Road Plan for Cities and Urban Areas (Norwegian Road Plan II, NVP II 1970 – 73). This was the first national road plan for urban areas and involved 80 local planning organizations. The need for improved accessibility, urban visual and environmental qualities, noise reduction and improved traffic safety was the focus of the plan (Lerstang and Mydske 1977).

*Results*

*Were environmental alternatives produced?*

The question is whether the planning efforts elaborated relevant alternatives to existing transport policies in urban regions. In NVPII 1970-73, specific environmental problems associated with roads and road traffic were addressed, e.g. as elements considered in comparing road investment alternatives. Along with elements such as walkways and
opportunities for cycling, these were all aspects that seemed innovative with respect to national road planning.

However, the planning process did not produce environmental alternatives. It was adapted to the established planning processes in traditional sectors, the road sector and land-use planning in the municipalities, concerning timing, volume and content. The technological infrastructure, roads, was one clear focus of the planning exercise. A general evaluation of the local processes, and the interplay between central guidance and local work, confirms the view that local planning was primarily adapted to the road sector’s need for improved road plans in urban areas (Lerstang and Mydske 1977). The question of relevance of the plans in the environmental sense seems only partly fulfilled.

Change of existing policies?

In NVP II, the focus of planning was the need for transport infrastructure as part of the recurring, national long-term road planning process. The plan generally meant no real change of policy.

Some changes may still be traced. Furthermore, the cooperative effort in local planning between a number of actors from counties, municipalities and road administration was clearly regarded as innovative by key participants. However, the character of an ad hoc project organization for pure planning purposes was not followed up with the establishment of any permanent structure of this kind. Although the central NVPII commission argued in favour of more comprehensive transport planning in urban areas very few institutional changes were actually implemented. Probably the most important was a change with respect to the Road Act, allowing alternative use of road funding for the purpose of public transport investments in cases where this could be shown to be the best way of enhancing transport capacity in congested areas. However, later evaluations of this mechanism show little evidence of practical application within road administration (Moen and Strand 2000).

Explanations

The imbalance between a possible environmentally sustainable transport system and the existing one was not altered, because the new plans were adopted to the existing ones, which favoured motor traffic.

Were the planning initiatives based on, or did they produce, alternatives to the existing knowledge, and was it applied in new policies? The availability of alternatives may
in practice be crucial in generating change. In practice, the planning was often founded on a traditional situation and problem analyses, as in NVPII, but also gave room to new and fresh sources of information. The art of planning is a field for experts as far as scientific investigations and goals-means analysis are important and relevant. In NVPII there was an extensive use of professional knowledge, but adapted to motor traffic structures.

In NVPII planning and implementation activities and structures were separate. The traditional authorities had the implementation responsibility and were the dominant actors in the system. The decisional processes were steered by the National Road Plan, a product of the existing system, which favoured road building.

*Learning* from previous environmental oriented traffic planning was not so relevant, since such efforts were more or less non existent.

2.2. Case 2. Transport planning in cities.

*Description*

The Norwegian Integrated Land Use and Transport Planning Scheme (TP10, 1989–92). This plan was launched in 1989 in response to growing concern about the environmental and other effects of road transport in Norway’s 10 largest cities. The focus was the need to develop more sustainable transport solutions, solutions which could reduce the growth in car traffic. (Mydske et al. 1992, Lerstang and Stenstadvold 1993, Sager 1994).

*Results*

*Were new alternatives produced?*

In TP10 1989-92, transport technology, e.g. roads, as the objective of planning was not predefined. Here, the ministerial guidelines stated that environmental concerns should be integrated in the planning processes in a way that ensured these concerns were regarded as a premise for, and not just a consequence of the plans under consideration. The ministerial guidelines for TP10 also paved the way for more holistic approaches towards developing new and environmentally sound transport systems and with regard to future land-use patterns. However, the existing institutional system for transport planning and the authority system for transport policies and administration were not supposed to be changed.
before or during the process. As a consequence, the new planning was adapted to the existing order of planning, budgeting and decisions in traditional sectors and by authorities (Mydske et al. 1992, Lerstang and Stenstadvold 1993). The new planning produced more environmentally sound and favourable alternatives and strategies than the existing ones, but, with a few exceptions, they were not formally adopted by local decision-makers (Sager 1994).

The proposals regarding change of direction for transport policies were commonly rejected in the local political decision processes (Sager 1994).

**Change of existing policies?**

In TP10 (1989-91), long-term scenarios were elaborated which indicated how changes in land use and transport policies could radically reduce further growth in car traffic. The plans proposed a number of environmentally motivated measures. Several cities suggested new mechanisms of transferring revenues from local road pricing systems to improve the funding of public transport in the regions. These initiatives were not supported at ministerial levels. Many decision-making processes modified the proposals in favour of more extensive road investment programs (Sager 1994). In addition, the regional offices of the National Road Administration also revised the proposals in favour of traditional road investments (Lerstang and Stenstadvold 1993). Furthermore, only a minority of the planning organizations in the 10 urban areas actually suggested that the new planning organization should continue or follow up the work.

Consequently, suggested improvement in the funding of public transport operation was not followed up in this sequence of urban transport planning. The outcome of transport politics in the cities, however, was the opposite of the planning goal, namely a focus on more resources for car traffic. In spite of alternative plans, there were no change of policy.

**Explanations**

Here, the imbalance between continuity and change remained unaltered.

The best example of new knowledge in the series of cases is probably TP10, which elaborated three different and alternative scenarios: One with priority on public transport, one with priority on environmental values and problems and one trend scenario. Both the public transport and environment scenarios clearly generated new knowledge based
on new and alternative analyses of transport policies. In this way new knowledge was introduced with the purpose of creating a basis for discussions on medium and more short-term actions.

New knowledge in the scenario work in TP10 1989-91 was in part based on the application of state-of-the-art types of local transport models. An evaluation of one of the most ambitious and model-intensive processes in the TP10-city of Tromsø, however, indicates a number of challenges regarding the application of new knowledge with respect to understanding and acceptance among others; laymen, NGOs and politicians (Lerstang and Stenstadvold 1995). Despite extensive work on modelling and forecasting of future transport volumes throughout the urban area, a general observation was that most interest groups and political actors paid little attention to these resource-demanding parts of the planning product. Another ex post evaluation of model application has pinpointed a number of inherent weaknesses, i.e. insensitivity to important policy variables such as changes in land use and transport supply, and major failures in attempts to model public transport (Arge et al. 2000). This indicates that there were significant problems associated with the production and acceptance of new knowledge.

The trend, however, was to prefer readily available and well-established sources of knowledge to new ones rooted directly in the problem area. In general, evaluations of (the NVPII and) the TP10 indicate that the availability of data and professional information was severely curbed by the narrow time limits set for these processes, leaving little time to establish new databases or to communicate with alternative sources of knowledge through extensive professional or public participation (Lerstang and Mydske 1977, Mydske et al. 1992).

TP10 processes relied on professional knowledge. The professional planning of TP10 was demanding, and in practice dominated by scientific experts with little participation from the public and politicians (Mydske et al. 1992, Lerstang and Stenstadvold 1993). Commonly, politicians participated in reference groups that were to react to information or proposals from the planner’s side. The end product, the planning proposals, was dominated by professionals.

An evaluation of the potential for implementation of TP10 in three major cities indicated a severe lack of implementation capacity in two of the cities and potential problems in the third (Lerstang and Stenstadvold 1993). Regarding conflicts as a potential disturbing factor, there was a general lack of productive conflict-solving, leaving established conflicts to future processes. Furthermore, the study indicated that lack of implementation
capacity regarding public transport and environmental protection measures facilitated initiatives from notoriously well-organized sectors with high implementation capacity, such as the road sector.

The question of *learning* inputs to TP10 concerns the transfer of knowledge and experience from NVPII to TP10. This was generally not the case. Transfer of experience could have been transmitted by the politicians, who were to a large extent involved in NVPII, but not so much in the next case.

### 2.3. Case 3. The Environmental City program.

**Description**

The Environmental City Program (1993-2000). Five of the largest cities participated in this program, and a number of environmental and transport projects were initiated and supported by the Ministry of the Environment. The aim of the program was to apply trials and measures aimed at changing trends in a more environmentally sound direction, and with the long-term perspective of developing models for more sustainable development (Opedal et al. 1998, Opedal and Strand 1999).

**Results**

*Were alternatives produced?*

At the local level, the planning proposals were adapted to what local actors considered realistic and not threatening to the given order: Green belts, walkways for pedestrians and cyclists, the rehabilitation of dwelling areas, and so on. In addition, several initiatives were taken to obtain more sustainable transport policies in the cities, but these seemed to be severely curbed by the need for realistic projects as part of the program (Opedal et al. 1998).

*Change of existing policies?*

In the Environmental City Program 1993-2000, the problem of recognition and the problem-solving processes relied mainly on local initiatives and local actors and decision-makers. Only to a limited extent did the local organizations manage to involve national and regional road and transport authorities in their work. Consequently, rather few projects addressed
major transport problems and related problem-solving. Lack of coordination between the
Ministry of the Environment and other national authorities partly resulted in contradictory
signals to the cities. Obviously, the key transport authorities did not see this program as an
opportunity to change direction in local transport planning (Opedal et al. 1998).

Explanations

The imbalance remained unchanged. In the Environmental City Program 1993-2000,
the ad hoc character of planning was obvious. From the outset, the national transport
authorities did not play a key role in this program headed by the Ministry of the
Environment, and to some extent this could explain the lack of motivation and interest
among transport authorities at various levels for this planning initiative.

New problems usually demand new knowledge. Was the moderate effect on policies
due to lack of knowledge? Was the knowledge in the plans new or was it a compilation of
already existing knowledge in the decisional process? Traditional and alternative knowledge
is not necessarily synonymous with “old” and “new” knowledge. Our planning examples
contain combinations of both “old” and “new” knowledge as constituent elements of the new
alternatives in the planning proposals. Expert knowledge in social and environmental fields
might have a background in an established tradition, but be “new” in an urban planning
context. The new planning could also conduct new empirical analyses without it being said
that the paradigms were new.

Generally, knowledge in this field should focus on relations between both social and
physical factors on the one side and environmental qualities on the other. This knowledge is
alternative to the prevailing paradigm. In the Environmental City Program, the cities dealt
with relations between city structure, public transport and land-use patterns, all linked to
goals for sustainable development. This was built partly on empirical analysis, but founded
mostly on established planning principles and already available knowledge. To the extent
new knowledge was generated, this was more a result of participation and ideas from
involved persons than from technical or professional work (Opedal et al. 1998).

Programs such as the Environmental City Program facilitated the application of lay
knowledge in interactive processes with professional planners.
The ad hoc character of the planning and lack of co-ordination between central authorities made implementation less effective. In retrospect, the only direct organizational follow-up that can be traced has been the earlier mentioned county planning work in Jæren (Nielsen et al. 2000).

Was TP-10 based on learning experiences from previous programs and was it concluded itself as input to later learning? TP10 was not concluded in a synthetic end report -- neither in a scientific paper nor in a government white paper. Either of these circumstances could have strengthened the possibilities for organizational learning, especially if a more continuous process had been established. The aspect of organizational learning could also be related to how previous lessons and professional knowledge were introduced to each of the planning exercises through, for example, guidance and guidelines. In this case the most extensive work was conducted in the NVPII, where a number of process and content-related guidelines were published and distributed to the local actors. Less work on guidance was conducted in TP10. In the Environmental City Program, no practical guidance on future challenges with respect to transport and environment was issued. The potential of learning from NVPII or TP10 was therefore not applied in later processes.

2.4. Case 4. County planning.

Description

Initiatives were taken by the Ministry of the Environment to develop county planning in urban regions (1993-2000). County planning is superior to urban planning, which in most cases are municipal or inter-municipal. The aim was to promote more sustainable and holistic solutions to common problems between various actors, e.g. neighbour municipalities, transport authorities and companies and county sectors. Several cases of county planning in the largest urban areas originated from the previous and above-mentioned TP10 work, while others were initiated by the new national guidelines. (Miljøverndepartementet 1993). These national guidelines promoted sustainable land-use patterns, coordination of land use and transport with the aim of minimizing the need for car transport. In 2000, a county plan for urban development in the region of Jæren, including the city of Stavanger, was presented, as a result of more than 8 years of work and was acclaimed in 2002 for outstanding planning qualities by the Norwegian Housing and Planning Association.
In our analysis, we considered this plan as representing state of the art with respect to regional land use and transport planning (Strand and Moen 2000, Lerstang and Stenstadvold 2001). County planning at Jaeren from 2000 indicates how a major coordination effort in urban planning can be developed by involving a number of political and administrative bodies.

**Results**

*Were new alternatives produced?*

Although environmentally aware and ambitious, the county planning was adapted to institutional frames and did not interfere with the core domain of the dominant actors. For instance, an investment package for roads in the region, based on toll rings, was developed prior to, and fairly independently, of the final decisions in the formal and long-term county planning process. The planning was generally consensus-oriented, with a focus on land-use conflicts and strategic decisions regarding public transport infrastructure. In an ex post evaluation of this planning, the level of coordination in general is regarded as moderate (Lerstang and Stenstadvold 2001).

*Change of existing policies?*

The focus was on directions for long-term land use and transport planning, all adapted to constraints with respect to the environment and conservation of present land use in areas with numerous conflicting interests. Although public transport infrastructure and related land use is regarded as one of many key issues, a radical shift in transport policies and actual changes in the use of transport modes in the region have yet to be seen (Moen and Strand 2000, Lerstang and Stenstadvold 2001). Furthermore, a major toll ring system in the region for road financing purposes was established shortly before the regional plan was adopted. This seems to have been little influenced by the rather extensive county planning process.

**Explanations**

An *imbalance* between the new plans and the existing policies and practices was not altered, although the new plans built on new and relevant *knowledge*. The borderline between planning and *implementation* was not really crossed, due to the heaviness of existing policies. The county plan for urban development in Jaeren was conscious approach
to learn from the previous case, TP10, with key political actors on a continuous basis working with the plan for more than eight years (Lerstang and Stenstadvold 2001), with benefits for the plan but with moderate impact in its implementation.


Description
(Oslo package as the latest significant example, uferdig, ev. andre byer)

Results

Explanation
For the capital city of Oslo, no local initiatives were taken to participate in the experimental initiatives mentioned above. One viewpoint was that the need for permanent institutional change was obvious and implied that measures of a more radical and permanent character should be put into practice. One problem with this, however, is that there has been long-lasting disagreement between the different political parties about the direction such changes should take. In 1997, a commission investigated common problems and possible solutions with respect to local democracy and administration and planning in the metropolitan area (NOU 1997: 12). In transport planning and implementation, the commission differentiated between short-term and long-term measures. Among the more immediate measures, the commission advocated use of a common county plan for the whole metropolitan area, common public transport administration across the county boarders and a decentralization of railway service administration to the county level. In a longer-term perspective, a majority of the commission recommended significant administrative reform in the direction of one county for the whole metropolitan area, or a single metropolitan municipality.

At present, implementation of important elements in the transport infrastructure in the Oslo region is based on agreements on financing between the government, the county of Akershus and the city of Oslo. These agreements, “Oslo packages 1 and 2”, are linked to the toll ring system from 1990 and financing through toll ring revenues and additional funding from the parties. The packages comprise measures for the implementation of specific road and public transport investment projects as results of negotiations, and cannot be regarded as product of comprehensive and holistic planning (Lerstang and Stenstadvold 2003). Furthermore, the packages do not address the question of possible restrictive measures on car traffic, directions for future land use and urban development in the region or the present and
future need for funding of public transport operation and service. So far, only public transport investments have been included in the packages. In regard to attainment of environmental goals in the region, no specific impact assessments have been conducted as part of the process behind the packages (Lerstang and Stenstadvold 2003, Sørlie 2000).

(Hva sier dette? Hva med forslagene 2006?)
3. Trends in results and explanations

3.1. Trend in results?
The new plans were of moderate relevance, and had little effects in the direction of changing development towards an environmental sustainable direction. The imbalance between continuity and change was hardly disturbed. Existing policies remained relatively unchanged. Planning efforts were either adapted to the prevailing policies or, when they represented policy alternatives, seem to have had a moderate impact on actual decisions. Generally, the key environmental elements in the plans have only been implemented to a limited degree through the periods.

One generally held view is that all the planning initiatives preceded an increase in traditional road building. Whether it was because or in spite of the plans is an open question. The plans improved the knowledge base for both existing and alternative policy directions.

In Norway there is no firm tradition of long-term monitoring of implementation of transport planning proposals or decisions. There have been some ad hoc evaluations of decision. In retrospect, the only direct organizational follow-up that can be traced has been the earlier mentioned county planning work in Jaeren (Nielsen et al. 2000).

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<thead>
<tr>
<th>Results/Cases</th>
<th>Case 1</th>
<th>Case 2</th>
<th>Case 3</th>
<th>Case 4</th>
<th>Case 5</th>
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<tr>
<td>Criterion 1</td>
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3.2. Trend in explanations?

The four theoretical angles applied in analysing the history of environmental planning in city and transport policies in Norway all focus on striking empirical aspects of reform and change. The lack of intended results are due to the following:
Firstly, the imbalance between the given order and the reforms efforts was not easy to overcome. Policy imbalance as a result may be seen as conditioned by an institutional imbalance, between planning and established institutions.

Secondly, producing new and alternative knowledge through planning to replace a given policy is problematic. In all our examples, professional knowledge constituted the core of the planning process, but the professions and professional knowledge varied from traditional technical and economic to environmental, social and alternative technological knowledge. The potential conflict between traditional and alternative knowledge and between “old” and “new” was mainly a conflict between professions.

In general, the rationality of knowledge in planning efforts seems to have been contingent on institutional factors such as the logistics of the planning process, resources and timing of information sources and the existence and role of experts in the administrative systems. This means that knowledge in itself hardly play any autonomous role in generating change, but is contingent on institutional settings which give it a pragmatic character. Knowledge counts, but power decides.

Thirdly, if new policies are agreed upon, lack of adequate implementation structures may block these policies. In all our examples, the planning organization was separate from the implementation organization. Typically, in major national efforts such as the NVPII and TP10, the professional participants in the planning organization did not leave their original units, but participated in planning on the basis of a specific and interim project organization. Furthermore, the organization of projects of this nature normally lasted for only a short period of time, 1–2 years. Implementation was left to the permanent institutions and relevant budgets. Separation of planning and implementation authority causes power imbalances in the decisional process, with consequences for the outcome of the processes. In the implementation organization, the road sector was commonly regarded as dominant. In cases of strategic adaptation of planning to the implementation structures, the planning goals are confronted with the existing goals. In such circumstances, the planning seemed to change focus from environment to car traffic. In cases of policy reform, a clear discrepancy between the environmental targets of planning and implementation was obvious, leaving the environmental goals with little implementation effects. The unwillingness of central authorities to change the institutional system to promote new solutions also contributed to the low degree of acceptance for the environmental solutions.
Organizational structure and division of work between planning and implementation organizations has been discussed for the greater urban areas in some national white papers (Parliamentary White Paper no. 46 (1999-2000): National Transport Plan 2002-2011). In 2003, however, the Ministry of Transport and Communications initiated institutional reforms in four urban areas. These new organizations may pave the way for more permanent reforms of the institutional framework for transport planning in urban areas.

Fourthly, when mechanisms of learning over time are weak or absent, repetitions of shortcomings are hardly to avoid. The mechanism of learning has to combine knowledge of the outcome of previous initiatives with new and repeated initiatives. In our story the relevance of learning increased through the time period.

Some paradoxical experiences from the sequence of planning events in this field are the absence of transfer of knowledge between them: NVPII seems to have been forgotten when TP10 started. Furthermore, TP10 seems to have been forgotten when the Environmental City Program started.

This may be due to a lack of continuity of persons through the cases. It is a fact that few persons at the central level were involved in more than one of these national efforts. This kind of personal overlap was to some extent more visible in some of the local organizations. One outstanding example is the regional plan for Jaeren, where learning and competence from local TP10 work set the framework for the regional plan. In this case it was the local politicians who transmitted experience over time. Several evaluations indicate, however, that the politicians normally are being placed a long way from professional work and with little responsibility for the directions that local planning would take (Mydske et al. 1992, Lerstang and Stenstadvold 1995).

The weak transfer of experience between the planning cases may have been due to organizational factors such as the ad hoc character of planning, fragmented structures, weak national and local responsibility for the memory of previous experiences, turnover of personnel and short time horizons of budgets. If experiences are to be utilized as a basis for learning, there should be institutional structures and mechanisms that actively transfer knowledge of previous results and outcomes to new reform activities and behaviour. This seems not to be the case in our story. These are the experiences through the four theoretical perspectives, and they seem to converge.
4. Synthesis: Planning, change and system dependency

We have so far discussed the results of environmental policy reform efforts in urban transport in relation to distinctive theoretical perspectives. One understanding is that the separate explanatory factors may be conditioned by another. Accordingly, we culminate the discussion with a broader perspective seeing the single elements: change, knowledge, implementation and learning form a web of interdependent relations in institutional systems. The system dependency of even single reforms is then a relevant problem. This ends in a classic question: Is it possible to reform one part of a system without changing the whole system?

The institutional context in our cases is the political and administrative system. Public decisional processes are power systems based on legality, resources, knowledge and tradition. Political and administrative systems have formal aspects with division of formal and legal authority with relevant instruments and means. They are systems of values, traditions and attitudes that constitute them as holistic institutions. They are embedded with cognitive structures as knowledge systems that organize the perceptions of reality and problems to be handled. But cognitive structures, the rational of planning, can hardly be regarded as autonomous entities. They are linked to power. This means that when reform transcends a rational discourse, a change in power relations is a prerequisite for changed policies and rationalities.

This is a key concept in the classic literature of organizational analysis by Scott (2001). Scott’s three pillars of organization -- the regulative, the normative and the cognitive -- all contain elements of power, the regulative and normative explicitly. Power is not an additional structure, but is embedded in structures such as rationality, rules and regular behaviour.

Change within an existing order is a classical problem. Reform means that either the resident organization with its rules, norms, roles and individual actors has to behave differently, or that new organizations have to replace old ones. As shown in our cases, the first alternative is often difficult. Proposals for new policies were produced by new planning organizations. They were, however, ad hoc and they were complementarily targeted towards the given system, not to substitute them. The second alternative, creating new orders, means a clear redistribution of authority, which may be unrealistic in the short run. One practical
problem in our case is the legitimacy of the new planning efforts within the system. This is the problem of the divergent newcomer. Processes of reform challenge the existing order of regulations, normative and cognitive structures, and thus power. A successful outcome is often put at risk when planning, for instance through knowledge production, disregard power aspects. The second alternative may be contingent on the first. Power in both cases is challenged through all the stages of planning, from establishing new knowledge to the moment of implementation and learning.

Reform is often promoted across institutional and authority borders through consensual mechanisms. Reforming policies through planning by production of (new) knowledge is a consensual steering strategy. Implementation of change dependent on consensus will not challenge power systems, due to its character as pragmatic policy adaptation. Radical change of goals within coherent systems, however, is particularly difficult and vulnerable without changing the whole system as a power context. Reform and change mean crossing power lines. When power lines are not moved, change is dependent on consensual coordination and argumentation between power lines. But consensual change disregarding power is decisively restricted in ambitions and normally only adaptive to given power structures. Consensual change is usually not radical. Ad hoc planning and consensus-based reform thus do not change established power systems.

What kind of power was actually challenged, and how did this condition the success or failure of environmental planning efforts in urban transport policies? In our cases, legal and traditional power was challenged. The general picture is that the central road authority controls the governing of roads and elements affiliated with roads. This authority had the legal base and controlled the main resources in the transport sector. Along with the municipalities, it also controlled the regulative and other key decisions. Some power is in the hands of local politicians, who control the normative aspects of public decisions in the municipalities. In some of the planning cases, awareness of this generated the active involvement of politicians.

What kind of power was effected? Did the planning mean a change in the legal and traditional order of power? No planning initiative to change policy in the transport sector has so far resulted in a change of the organizational structure. Alternative environmental planning obtained legitimacy in the road sector only to very little degree. Consequently, one could regard planning and learning as a challenge to the institutionalised cognitive power. Competence and planning capacity as cognitive structures have been critical in developing environmental plans in the transport sector. In practice, the county authorities have been
dependent on the external expertise of consultants and on the public road administration in elaborating and assessing various planning proposals. Competence and ability have been further weakened by a lack of organization of learning processes from previous efforts. This concerns professional learning as well as aspects on how to organize the processes, the involvement and commitment of the political actors and various stakeholders and the accumulation of knowledge as a basis for more radical institutional reforms.

Is the fragmented structure in politics and administration a problem for reform policies? The overall picture is that no single authority has the sole power and responsibility of a holistic policy of transport, land use and environment. There is a division of responsibility, resources, values and knowledge in the political and administrative system, in our cases between the road and transport sector, central authorities in transport and environment and the municipalities, which demands a high degree of coordination if new policies are to be obtained in an environmental direction. But coordination in a system where the basic rules of order and interplay are not questioned may be a powerless instrument with less predictable outcomes. Or, put in another way, the most likely outcome will be a result of the work of sectors with the most resources and highest planning capacity, and with a well-designed implementation apparatus. More roads seem to be a more likely outcome than measures that might turn the transport trends in a more sustainable direction.

After all the years of reform efforts, are there new trends to be observed? In 2004, the Norwegian government presented a new National Transport Plan for 2006-2015 (Samferdselsdepartementet 2004), which states that there is general agreement on the need to curb the growth in motor traffic in cities and that well-functioning public transport services should be available to all. The plan stresses the need to improve the cooperation between state, counties and municipalities, and that the government is willing to try out new types of organization, both in the major urban areas and in the counties. Several pilot and new organizations have been established whose purpose is the coordination of transport policies. Furthermore, the need to establish formal agreements between national, regional and local authorities in urban areas is envisaged. Such agreements are yet to be established and it is much too early to consider them as a permanent measure in future transport policies for urban areas. However, the signals in the new transport plan in Norway could be regarded as a step in the direction of more permanent reforms in urban regions. One might say: … after all these years. The fundamental argument of this article, namely that it is difficult to change policy without changing institutions and systems, may be acknowledged indirectly in these new reforms.
References


