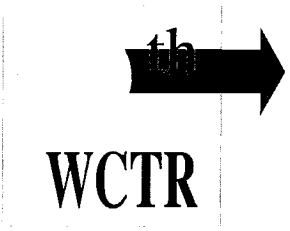

DESCRIPTION AND ANALYSIS OF THE PLANNING PROCESS OF THE HELSINKI METROPOLITAN AREA TRANSPORTATION SYSTEM PLAN 2020

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Abstract

During years 1990-1994 a large planning work (called PLJ) concerning the transportation system was made in the Helsinki Metropolitan Area in Finland. The aims of the work were ambitious and the contents quite versatile, as all the transport modes, land-use, decision-making and financing processes were handled altogether. The purpose of the study presented in this paper was to analyse how the PLJ planning process succeeded, so that the experiences gathered can be used when revising the plan and in other similar planning works. The analysis is based on careful study of the actual process and on focused interviews of 29 persons, who participated in the process.

INTRODUCTION

During years 1990-1994 a large planning work concerning the transportation system was made in the Helsinki Metropolitan Area in Finland. In this work all the transport modes, land-use, decision-making and financing processes were handled simultaneously. As the final result of the work the Helsinki Metropolitan Area Transportation System Plan 2020 (PLJ 2020) was approved by the Helsinki Metropolitan Area Council (YTV) Council in September 1994.

The purpose of the study presented in this paper was to write up a comprehensive report covering the PLJ planning process and find out its strengths and weaknesses. Especially the planning organization, the co-operation arrangements, the structure of the planning process, the methods used, and the decision-making process were studied. The analysis was based mainly on focused interviews of persons who had participated in the process. Reasoned proposals for developing the process and planning and decision-making methods were made on the basis of the analysis. The study was prepared as a master's thesis (Ojala 1997) in the Laboratory of Transportation Engineering at the Helsinki University of Technology.

BACKGROUND INFORMATION ABOUT THE HELSINKI AREA

The Helsinki Metropolitan Area consists of four municipalities: Helsinki, Espoo, Vantaa and Kauniainen. Helsinki is the capital and the biggest city of Finland. In 1988 (the base situation in PLJ) the population of the area was about 813 000 and the number of jobs 442 000. The area is 764 sq. km. The Helsinki Metropolitan Area is the fastest-growing area in Finland. (YTV 1991b.). The community structure of the area follows a "finger" model. Housing and business areas extend radially from the main centre (Helsinki) alongside the major transportation corridors (rail and road). There are also two major ring roads (Fig. 1).

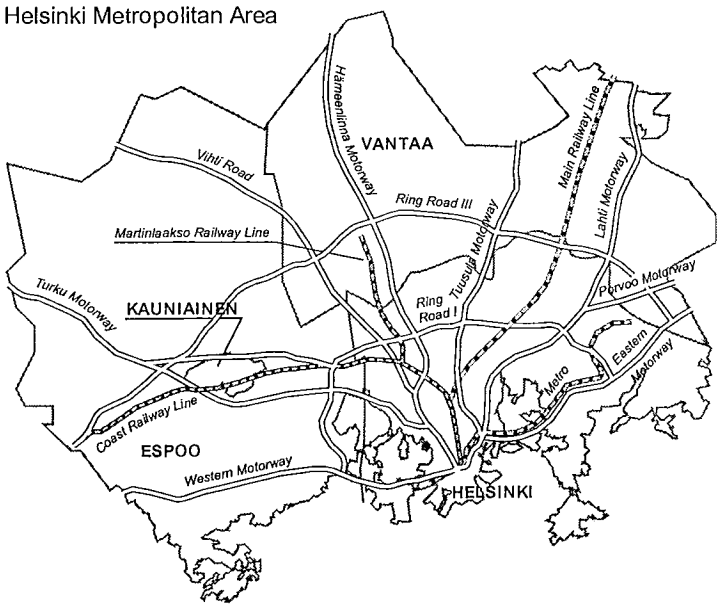

Figure 1 - Helsinki Metropolitan Area (YTV 1996)

In 1988 the car density in the area was 320 cars/1 000 inhabitants. 60 % of all households had at least one car. On a normal working day over two million journeys were made inside the area, 46 % of these were made by car, 32 % by public transport and 22 % on foot or by bicycle. The share of public transport was higher on journeys to the centre of Helsinki. The share of public transport of all motor vehicle journeys has decreased continuously, in 1966 the share was 66 %, in 1976 53 % and in 1988 42 %. (YTV 1991b.)

In Finland municipalities have a local self-government. Every four years residents elect a local council, the supreme municipal authority. An executive board does the practical administration. Municipalities supervise land-use and building activity within their areas and are responsible for street maintenance, water supply and sewerage, coordination of waste disposal and energy supply, and environmental protection.

Despite their administrative boundaries, the four municipalities of the Helsinki Area today present a complete functional entirety. The Helsinki Metropolitan Area Council (YTV) is the joint municipal organization for co-operation among the four cities and its functions are regulated by a special law. YTV is responsible for waste management, public transport, air quality management, and from 1997 also for development planning. Highest decision-making body of YTV is the Regional Assembly of 22 members (before 1997 called YTV Council with 44 members), elected by the cities for quadrennial period. The Regional Assembly nominates the Executive Board, responsible for the execution of the Regional Assembly decisions. The Board consists of 14 members, and their term of office is two years.

There are many authorities responsible for transportation subsystems in the area: four municipalities, the Uusimaa Regional Council, YTV, the Ministry of Transport and Communications and all the separate state transport authorities, the Ministry of Environment, etc. The lack of jointly accepted transportation policy and strategy has continuously caused problems. Every party has their own decision-making processes and timetables in planning and budgeting, and because of the lack of coordination, the plans have been overlapping, even contradictory. This was also found in an international audit in November 1992 concerning the transportation planning of the Helsinki Area (Baumann *et al* 1992).

THE PLANNING PROCESS OF PLJ

Starting-points

A large transportation study (LITU 88) was made in Helsinki Metropolitan Area during years 1987-1990, where data about the present traffic situation, and some background information were collected. Similar studies had been made in the area in 1966 and 1976 followed by planning work concerning transportation system, but decisions on regional transportation policy and development actions were not made. Based on LITU 88 data a new transportation system planning was started. The *general programme* for the Helsinki Metropolitan Area Transportation System Plan was approved by the YTV Board in August 1990 and a *project programme* in April 1991.

Traffic problems in the Helsinki region have so far been quite bearable. In general, the transportation system works quite well, although local problems do exist for all transport modes. The level of service of public transport is good and its proportion of journeys is high. The car traffic is also fairly fluent. Traffic safety is at high Scandinavian level and environmental problems are mainly local.

Problems, however, increase all the time. The continuous growth of motorization is leading to the sprawl of urban structure and weakening the functional conditions for public transport. As a result of that the car traffic will increase thus reducing the share of public transport. Environmental problems will also increase because of the growth of car traffic.

Disagreement about regional transportation policy and actions may partly have caused the fairly small share of state transportation financing in the area. Thus, transportation system planning was seen as an instrument to formulate common goals to develop the transportation system, to avoid the problems ahead and to put the separate actions in order of preference. A jointly accepted plan would also serve as an expression of common will of the region in the negotiations of state financing.

Organization

The planning work in PLJ was carried out as project, which was placed in the Transportation Department of YTV. The costs of the planning were shared equally between the Ministry of Transport and Communications and YTV. A management group appointed by the YTV Board led the project. It included representatives of municipalities of Helsinki, Espoo, Vantaa and Kauniainen, Finnish National Road Administration, Ministry of Transport and Communications, and YTV. A representative of Finnish State Railways as an outside expert and a group of other experts was named to assist the management group. During the planning process ad hoc project groups were formed for special tasks. Several contact groups were also organized and plans were discussed with some existing co-operation groups like Helsinki Metropolitan Area Transport Commission. Consultants were used to make carefully defined studies (Fig. 2). Participation opportunities were provided for private citizens and citizen groups. Information about planning was given openly and largely in newspapers and in other media.

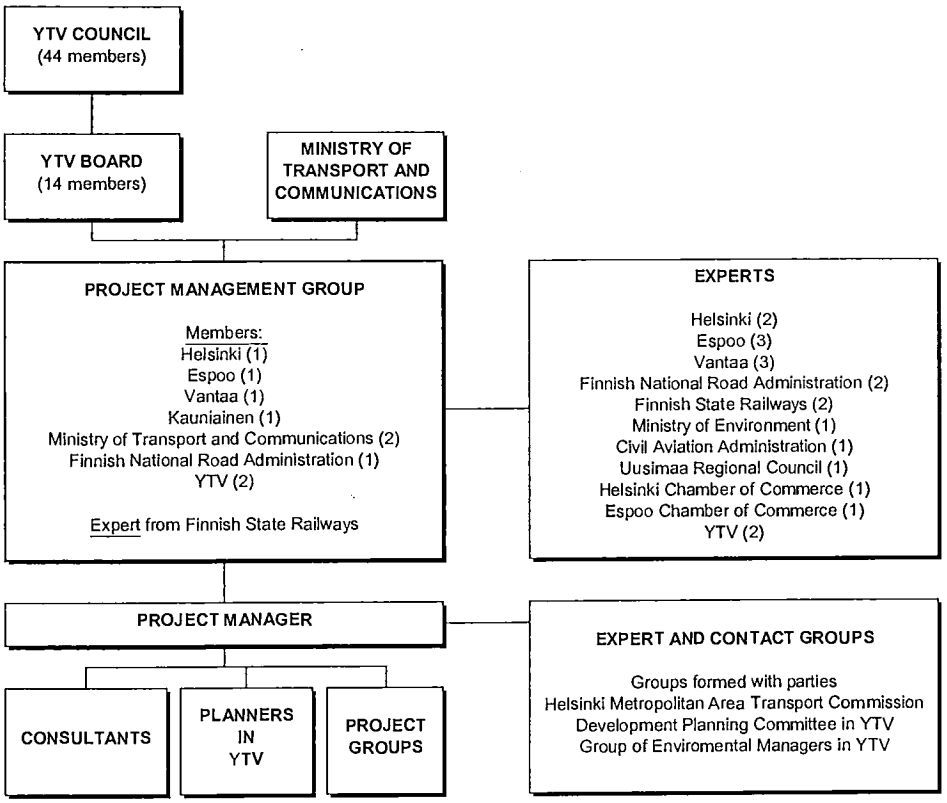

Figure 2 - The planning organization of PLJ (Ojala 1997)

Goal and extent of the planning

The overall goal of the development of the Helsinki Metropolitan Area transportation system is to improve, by transportation-related methods, the quality of life of inhabitants in the area as well as the opportunities for commercial and capital city functions. The objective of PLJ project was to produce a plan aiming at that overall goal, a plan in which sufficient agreement between the state and the municipalities of the area is found. The plan had to be realistic enough to be implemented and to cover all the transport modes. Balance between transportation and land-use had to be found. It was also aimed at developing the regional decision-making and financing systems. (YTV 1991a.)

The planning area covered the areas of municipalities Helsinki, Espoo, Vantaa and Kauniainen. During planning also some solutions concerning the neighbouring municipalities and the regional commuting area were handled. The year 1988, when the latest transportation study in the area was made, was regarded as the base situation of the plan. The target year was year 2020. (YTV 1991a.)

The subject of the plan was the transportation system of the area. The planning process covered all land transport modes and passenger and goods transport by land to ports and airport. The planning concentrated mainly on transportation policy and on the developing of public transport system, main road network and cycling. In the planning of different transport modes the aim was to stay on a system planning level. In addition to pure transportation questions, the decision-making and financing processes and the interaction between transportation and land-use were also studied.

Planning and decision-making process

PLJ project was divided into four subprojects, of which the subproject 1 included the actual preparing of the transportation system plan and was to be supplemented with the results of other subprojects. The planning and decision-making process of PLJ is shown in Figure 3. PLJ was based on the data collected in the transportation study made in 1988. On the basis of the study traffic models were formulated so that forecasts of the future traffic development and the impact assessments of different planning alternatives could be made.

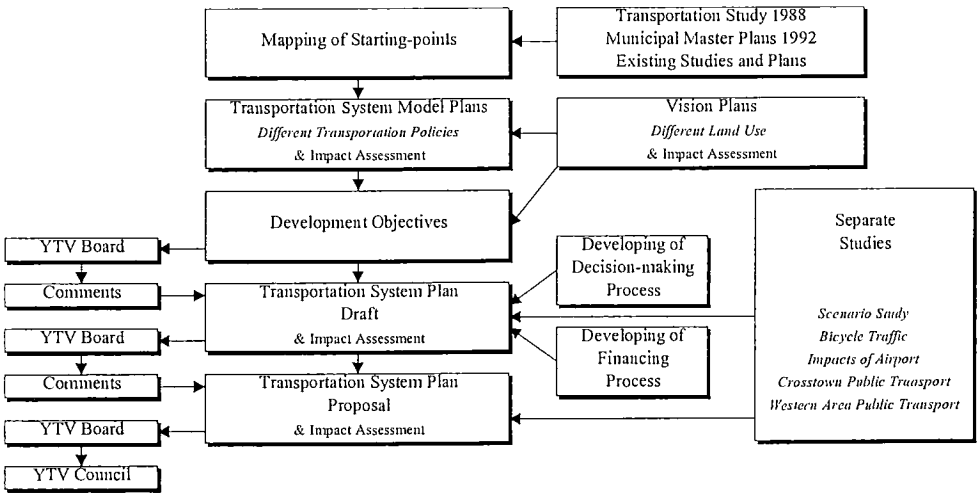

Figure 3 - The planning and decision-making process of PLJ

To begin with four *vision plans* were made in subproject 2. The aim was to find out how land-use decisions different from municipal master plans would affect the transportation system. The first vision plan was based on release of market forces and priority of private car traffic, second on powerful increase in land-use and priority of rail traffic, and third on zero increase in land-use and low investments. The fourth vision plan aimed at environmental goals in a situation of substantial increase in land-use. Vision plans were finished in October 1991. The traffic, environmental and economic impacts of the vision plans were assessed. Also the base transportation system (present network completed with road and rail projects already started) and the full transportation system (all the road and rail projects included in the municipal master plans) were tested.

After the analysis of the vision plans, three transportation system *model plans* were formed in subproject 1. The aim was to find out, what the consequences of different transportation policy decisions would be and how the actions needed would affect traffic conditions, environment and economy. The goal in the model plan A was a well functioning car traffic with minimal driving costs. In the the model plan B the aim was to raise the modal share of public transport and in the model plan C to minimize the adverse environmental impacts by integrated land-use and transportation system planning. In model plans A and B the land-use was based on the municipal master plans, but in model plan C some changes in activity location were made. The model plans were finished in June 1992 and analysed like the vision plans.

The *development objectives* of the transportation system were set on the basis of the vision and model plans, and the impact assessments of them. The idea was to determine a transportation policy that is based on a joint agreement of the separate parties. Therefore the objectives were discussed in the YTV Board. The Board gave preliminary approval to the objectives in December 1992 and sent them to the parties for comment. The objectives were finally approved together with the plan in 1994.

Some *separate studies* were also made when needed, for example the bicycle traffic, crosstown traffic, and Western Area public transport system were studied in more detail. The opinions of the citizens were asked about the goals of transportation policy. As well, *scenario papers* were asked from four experts acquainted with the future development in order to figure the prospective changes in national and international policy and their effects on transportation system development.

The final planning started in December 1992. The *transportation system draft* was drawn up on the basis of the existing plans and studies, the studies made in the PLJ project and the written comments on the objectives. The projects proposed by different parties were scheduled and fixed together. The draft was represented on maps and tables. In the transportation system *development programme* the projects were divided into three phases. Projects belonging to the first group were scheduled for implementation before year 2003 and in second group before year 2010. These projects were considered to improve the functioning of the transportation system most and to be ready for implementation in that time range. Projects in the third group (implementation before year 2020) were considered somewhat uncertain and their need and justification are still subject to review. A rough traffic forecast was made before the draft was presented to the YTV Board in a seminar in May 1993. The Board set a working group to discuss the draft closer. The group changed some parts of the draft, and in September 1993 the draft was approved by the Board and distributed to parties for comment. An impact assessment of the draft was made and included into the comment material.

Subprojects 3 (Decision-making) and 4 (Financing) proceeded side by side with the actual system planning. In subproject 3, the aim was to investigate the present decision-making processes in transportation projects, to identify problems in them, and on the basis of the analysis, to find a better decision-making system. The task was, however, found very difficult and only some preliminary proposals for developing the regional decision-making system were made.

In subproject 4 the present financing situation was investigated. It was also aimed at finding new financing methods and better financing system as a whole. In the beginning of 1993 road tolls were

studied at the Ministry of Transport and Communications. Due to negative response to the study, the tolls were also left out of PLJ, even though they were discussed in the earlier phases of the project. The investigations of other new financing methods were also left without greater attention, only the introduction of local fuel tax was presented in the final plan to be considered as a new financing source. The sharing of costs between state and the municipalities was discussed largely and some proposals were also included in the final plan.

The draft was completed into the *final plan* on the basis of the comments received, some further studies, and discussions with the parties. Further studies were made about crosstown public transport and Western Area public transport systems, the subjects of the biggest disagreements in the development programme. The citizens' opinions about the transportation system draft were asked in a circulating exhibition and financial impacts of the biggest projects were investigated closer. Some minor changes were made in the scheduling and the costs of the projects in the plan. The impacts of the final plan were reassessed.

In April 1994 the plan was finally ready to be presented to the YTV Board for approval. The Board had a seminar about the plan and decided later that the matter is so important that the plan should be referred to the YTV Council. The plan was presented for the Council and the representatives of the municipalities in a seminar. The YTV Council approved the Transportation System Plan for the Helsinki Metropolitan Area finally on September 30th 1994 and also decided that the Plan will be revised every four years.

MAIN CONTENTS OF THE FINAL PLAN

The PLJ 2020 plan contains the development objectives of the transportation system, the main networks for the year 2020 and the transportation system development programme in three phases. The objectives are presented below in Table 1. The development of public transport is the major objective.

Table 1 - The development objectives of PLJ 2020 (YTV 1994)

1. LAND USE
Densify the city structure in order to reduce the need for travelling, and increase possibilities for public transport as well as for walking and cycling.

2. PUBLIC TRANSPORT
Develop public transport so that it is a competitive mode of travel. Improve public transport economics by improving the efficiency of the network and by competitive tendering entire public transport system.

3. CAR TRAFFIC
Maintain operating conditions for car traffic outside peak hours and peak areas at the present level.

4. WALKING AND CYCLING
Forcefully develop walking and cycling connections, conditions and safety.

5. COMMERCIAL TRAFFIC
Provide a high level-of-service for commercial traffic.

6. TRAFFIC SAFETY
Guarantee high level of traffic safety in accordance with Nordic standards.

7. ENVIRONMENTAL ISSUES
Reduce traffic related local environmental impacts and fulfil national and international objectives for reducing carbon dioxide emissions. Develop and support pro-environmental travel habits.

8. ECONOMY
Metropolitan Helsinki will receive a fair share of state financing in relation to its traffic volumes and the special traffic fees and taxes collected in the area.

9. IMPLEMENTATION
Carry out the transportation system development measures in a coordinated and democratic manner.

About 60 % of the investments included in the plan are related to public transport projects and rail transport will form the backbone of the public transport system in all directions, except in Southern Espoo, where the public transport is still based on bus system. The road network is based on the existing system. Development projects are mainly focused on improving ring road connections (new Ring II).

Implementation of the development programme will require financing of about ten thousand million Finnish marks by the year 2020 (1 USD ~ 5.1 FIM ~ 0.8 EUR). The state should participate, at an average share of 75 %, in the financing of the projects that will be jointly implemented. The cost sharing formula can vary depending on the project. But in financing the metro and such basic investments, which improve public transport operation conditions, the state should contribute at least 50 %.

ANALYSIS OF THE PLJ PROCESS

Method of the analysis

The analysis of the PLJ process was based mainly on focused interviews made during the study. In all, 29 persons who had participated in the process were interviewed. These persons were trustees of YTV, officials of YTV and other parties, consultants, and representatives of transportation and business life organizations. The written research material available consisted of documents concerning PLJ.

In the focused interviews persons were allowed to tell freely about their opinions conceming the themes of the interest of the study. The interviews were recorded and afterwards written out. Information was sorted by themes in order to find out the different points of view, and to make conclusions.

Main results of the analysis

Organization and the co-operation between parties

The organization was seen quite heavy, but on the other hand, it was stated that the organization could not have been much lighter, either. Because the planning subject was so wide and complicated and concemed so many organizations, the parties had to be allowed to participate in the planning in order to make them committed to the results. So most of the interviewees were pleased with the number of parties involved, and said that though integrated strategic level transportation system planning concems many, and experts of different areas are needed, everybody cannot belong to the fixed organization. Smaller groups must be provided for other participation opportunities. Many also stated that it was positive that so many different parties were heard during the planning via expert and other project groups. Only the social sector of the society was found to be missing nearly totally.

The management group was considered to have been composed in a good way. The parties, who are responsible for transportation decisions in the region, were represented. Though some persons criticized that there were not any representatives from the Ministry of Environment and the Uusimaa Regional Council in the group. State Railways would also have been wanted into the group as a full member, because the rail traffic had essential role in the plan. More land-use, environmental and public transport expertise was considered to have been good for the group, because now the management group members were mostly leading officials responsible for general transportation planning. The number of members in the management group was found to be the main problem in these kinds of projects. There cannot be too many persons in the group otherwise the functioning and decision-making will become too slow.

Many of the interviewees thought that despite the size of the organization it, however, was quite functional, practical, and flexible. YTV Board delegated some power to the management group to decide on hiring of consultants and temporary workers in to the project. There were no all-time functioning bodies except the management group. Project groups were organized on ad hoc basis for some special tasks. The group of experts nominated by the YTV Board did not have any regular meetings, but the experts were contacted every now and then and asked about actual planning questions. Some persons named for experts though felt somewhat ignored. A more exact division of tasks in the beginning of the process would have been needed, so that there had not been false expectations.

The planning and decision-making organization was considered to be successful compared to the previous trials to formulate a regional transportation plan. The preparation of the plan and the decision-making were separated from each other, but the plans were presented to the decision-makers after each phase. That way the decision-makers stayed aware of what was happening and the planners got important feedback about the political issues. The fact that the YTV Board was interested in the planning by itself (set committees to consider things closer) was also seen positive for the commitment into the plans. On the other hand a long minus was given for the connections to the municipal decision-makers; some seminars are needed to ensure their information needs and commitment, too.

The interviewees were quite satisfied to the information flow between the project and the parties. There were many information channels: information was delivered both by the members of the management group and the named experts, which also got the minutes of management group and project documents. During the planning some contact groups were also formed in order to discuss openly about the planning issues and to get some feedback. Though the information between parties was considered open, it was guessed that everybody in the inner organizations of parties did not necessarily get enough information. Some persons also said that sometimes so much material was received that it was impossible to have time to look over and adopt it. Maybe a regular memorandum about essential issues would have been better.

Most of the official co-operation was located in the management group. Concrete planning co-operation was made in the different project groups set to make some precise planning tasks (for example the vision and model plans) or to guide the consultants. The project group members were named by the management group and selected with the help of the parties involved. The interviewees thought that groups were a good and productive way to work and to learn to think, what is best for the whole region. Group work also helped people to commit themselves to the plans. And because much of the work was made by official duty, planning costs did not rise very high. The seminars held during the planning were also found as a good channel for two-way interaction: a large number of people can be given information at same time and participants can hear about opinions of the others and discuss about them directly.

Citizen participation

The interviewees' opinions about the need of citizen involvement in the strategic level planning were divergent. The most critical part of the interviewees said that citizen participation is not needed at all, because in democratic society citizens elect trustees to represent them. The majority of the interviewed considered the participation as a positive idea, but stated that on strategic level it is hard and expensive to arrange it well, because the planning concerns so large area and so many people. Only the methods of informing and representative participation were regarded possible. Negative experiences from the former planning projects seemed to have made people suspicious of the need of participation. Occasions arranged for citizens have had poor attendance. It was complained that only the persons who have some special interest to advocate are present, while the general public is not interested in such large and distant things handled on strategic level. Their interest is aroused only when things start to threaten their own neighbourhood. A part of the interviewees, however, insisted that there must be citizen participation in all kinds of planning projects, especially when deciding on the future development strategies. Inhabitants and enterprises in the planning area were seen as an important source of information about the local problems, needs and values. Besides, it was expressed that many citizen organizations have nowadays a lot of expertise and international contacts, which are useful for the planning.

Many of the interviewed admitted that in PLJ project there were some good efforts in involving the citizens, but the actions were not scheduled and planned well enough. The interview survey was made late and the amount of feed-back gathered in the draft exhibition was quite small. More activity from the project staff would have been needed in order to arouse discussion in newspapers and to get people to tell their opinions. It was also highlighted that citizen participation should be scheduled into the early phases of planning before any decisions are made. In the beginning it is important to inform citizens openly of the planning, and to let people know what kind of information is needed from them. A good way to start

project is to make a thorough interview survey and to ask citizens what they think the biggest problems in transportation system are at the present and what they want from the transportation environment in the future. With the help of the results of this kind of survey it is easier to make the problem definition and to formulate the development objectives. It was reminded that citizens should also be heard later when deciding on the planning alternatives and the final plan. Open discussion occasions and smaller group discussions were found as a good method for citizen involvement in the later phases of planning.

Planning process

The structure of the planning process of PLJ was found quite good and reasonable. The iterative process getting level by level more detailed was found helpful when discussing difficult strategic issues. The planning was phased so that intermediate stages, from where it was easier to continue, were formed. Things, which belong together, were organized as subprojects to make the handling of them easier. In fact, the planning process in PLJ was not quite ordinary. Vision and model plans, and scenarios were made, and objectives were not set until after the visioning phase. Many of the interviewees stated that idea was good, but complained that the linking between phases was not clear. There seemed to be a great uncertainty among the interviewees about what the influence of vision and model plans on the objectives was and what the connection between objectives and the final plan was. Some even stated that the plan could have been made as well in the traditional way without any visioning. On the other hand it was admitted that visioning aroused the thinking and contributed the final approval of the plan.

Most of the interviewed persons considered that planning proceeded quite logically. Sometimes it was necessary to come a few steps back and think over, as in any planning work. However, planning was held in hands and was not led astray. Still some complained that too many issues were handled in PLJ. As a result of that planning swelled and studies, not actually useful for planning, were made.

Most of the interviewees also considered that new things that appeared during the planning were taken up for a discussion well in PLJ. For example starting points of forecasts were changed because of the economic depression in the early 90s and a re-study of light rail was made when an active citizen group presented their idea of organizing rail traffic to Southern Espoo. Some persons thought that reacting to the changes in economic development could have been stronger, because the final plan was clearly oversized compared to the economic situation at the time of the interviews.

Planning and evaluation methods

Some new planning methods, like visioning and scenario technique, were used in PLJ. The interviewees considered that the trend was good but the methods did not fully succeed. With the help of vision and models plans it was, however, easier to see what the consequences of different transportation and land-use policy decisions were. The decision-makers could reflect their values to the results of the studies. The desired future could be determined. With the help of the vision plans and the scenario papers the future development and the changes and threats brought by it could also be foreshadowed. Little more weight on the visioning and scenario study would have been wanted. The studies were modest and partly overlapping. More courage to see new things coming and "feet loose from the ground" -mentality would have been needed. Vision plans would have been wanted to be downright and different enough in order to make it easier to see why the assessment results of the alternatives were different. It was stated that visions and scenarios made in PLJ were not properly what is meant with visions and scenarios today. The concepts were argued a lot during the planning, too. Many of the interviewees expressed that the main reason why visioning somewhat failed, was the novelty of the method.

The forecasts and impact assessments gathered quite a lot criticism. Most of the interviewed though admitted, that forecasts are needed in support of planning and decision-making, but preparing and looking at them cannot be the main point in the planning. There is so much uncertainty in the forecasts that decision-making on the basis of them only is very dangerous. It was also reminded that there is a big

risk of manipulation in forecasting; if one starting-point is changed the results are different. The starting-points should be determined together with the parties. In order to illustrate the uncertainty in forecasts sensitivity analyses are needed, and the results of them should be presented to the decision-makers, too. The PLJ forecasting system based on EMME/2 traffic assignment and models developed on the basis of transportation study in 1988, was however considered to be well-functioning and of high standard. Even though the traffic models were criticized to be based on the present-day traffic behaviour and to forget effects on the modal choice resulting from the qualitative improvements of the transportation system.

In the PLJ project the evaluation method used was somewhat different from the former methods. Impacts of the planning alternatives were assessed after each phase according to the assessment framework developed in the beginning of the process. The impacts were divided into three categories: i) man, society, comfort and safety (i.e. traffic), ii) environment and man as a part of it, iii) economy. The impacts were not summed up, but every impact was described in a way characteristic of it. Traffic impacts were got straight from the forecasting procedure. Environmental and economic impacts were counted on the basis of the traffic forecasts and other data. Detailed methodology for the assessment was developed during the process. Some cost-benefit calculations were also made. The disaggregative evaluation method used got positive response from the interviewees. Aggregative cost-benefit analysis was though found necessary to be used along with other kind of evaluation, but all impacts cannot be measured and changed in money. Impacts which cannot easily be evaluated in quantity but which, however, have some remarkable effects, should be assessed at least roughly verbally. Especially on the system level there are many unrneasureable impacts like impacts on city structure and on the living conditions. As a result of this the public transport projects cannot often compete with the road traffic projects on the cost-benefit basis. The evaluation methods were desired to be developed for that respect. Also social impacts and distribution of impacts were suggested to be assessed.

Political decision-making and the importance of the plan

The majority of the interviewees considered that the political discussions in PLJ process proceeded well and succeeded, at least formally. The decision on the transportation system was made. Scheduling of decision-making was considered to have been right. The objectives were taken to the decision-making bodies of the parties in the early stages of planning, and in this way the decision-makers were made to be committed to the whole planning process. More opinion rounds were not wanted, because they lengthen the planning process. It is sufficient if opinions are asked after essential planning phases. Some even suggested that part of the opinion rounds can be replaced by seminars in order to speed up the process.

The working group of YTV Board in the drafting phase was considered important for the process of finding consensus. The group established a political discussion forum in which persons of important position in municipalities could agree on essential issues, and committed themselves to the plans. The commitment of these key persons created a basis for further political discussions. Although some of the interviewees complained that the working group was a mistake, because there was not representative from the Ministry of Transport and Communications in the group. Ministry, however, had a chance to be heard and participate in the process from there on. It was regretted that even so the Ministry sort of stepped aside from the project and final statements of plan were not received from the Ministry. Some problems also arose because there was no mutual understanding about the final decision-making practice. Some of the interviewees thought that YTV somewhat overstepped its authority and made decision on issues belonging to the municipalities or the Ministry of Transport and Communications.

The interviewees said that the final commitment to the PLJ 2020 is not quite clear because of those little obscurities in handling. Municipalities were considered to be largely committed, but opinions of the commitment of the state were many. The status of the plan was, however, found to be high. The greatest importance of the plan lies on the fact that for the first time such a common paper has been made. It is now much easier to continue negotiations between the state and the municipalities on the basis of the plan. Also plenty of regional thinking and co-operation were learned.

Integrated transportation system planning

Integrated transportation system planning was considered to be a proper planning practice. Most of the interviewed stated that in order to accomplish well functioning transportation system, it is necessary to deal with all the different transport modes and things affecting them at the same time. Transportation and land-use have a strict interaction with each other and traffic has many environmental effects. Co-operation between different planning sectors is necessary in order to solve complicated planning problems in a sustainable and effective way. Many of the interviewees would have also wanted, that the planning area had covered all the commuting area of Metropolitan Helsinki.

The biggest problem of transportation planning in the area has been the lack of regional transportation policy and disintegration in decision-making. Most of the interviewees found transportation system planning as a means to solve this problem, as a means to define joint regional objectives about the direction to which transportation system is to be developed. This way solutions with the greatest advantages to the region can be achieved and vain and overlapping work can be avoided. Operative planning will happen in coordination towards the jointly accepted objectives. Many stated also that there should be one organization, which coordinates the planning, decision-making and implementation and also has all the funds needed for realization of the plans. The same organization ought to be responsible for the traffic management, too. The regular revisal of the transportation system plan was seen very important. In that way the plan will stay up-to-date and planning will form a continuous process.

The concept of integrated transportation system planning is new in Finland, the term was used first time in PLJ. People still understand it differently; that was seen in the interviews. In PLJ project there seemed to have been some problems in the scope of the planning: it was not quite clear what things belong to system planning and in what extent. Many complained also that the planning process lasted too long.

Many of the interviewed criticized that two much time was spent for formulating the development programme in spite of discussing thoroughly about transportation policy or the traffic management. On the other hand it was admitted that transportation system planning also requires some kind of investment programme in order to become concretized. Some thought that part of studies made in PLJ were too detailed and there were too many studies on the whole. It was considered that on the system level rougher examinations, outline figuring and concentration on essential points are enough. That way some savings can be achieved both in the costs and in the duration of the planning process.

Many of the interviewees thought that too much attention was paid to the duel between car and public transport. The other transport modes, walking, cycling, and goods transport as well, were not handled enough. Also the co-operation between different modes was not discussed as much as should have been; all transport modes are needed in order to accomplish a well functioning system. It was also criticized that things affecting traffic (land-use, economic development, new forms of financing) and things traffic has effects on (environment) were not handled sufficiently. Especially the connections to the land-use planning were not good enough. It was expressed that the biggest problem in combining the land-use and transportation planning was that YTV did not have mandate to decide on land-use issues. In the land-use planning municipalities always stick hard to their self-governmental power. The municipal master plans were just finished before PLJ and nobody was ready to change them, so there was not much space.

Most of the interviewed considered that the three phase development programme was a good method because it helped the planners and decision-makers to think what investments are essential in the near future and what investments may be needed in a long run. The distant projects can be reviewed in the following planning rounds when there is more information about the future development available. On the contrary some interviewed persons thought that the three-phase development programme was only the means to put aside all the difficult and controversial questions.

Recommendations

The following recommendations have been made on the basis of the analysis so that the integrated transportation system planning process will be effective and the aims set will be met:

- In order to find the common language between parties, to agree on the contents and the aims of the plan and the planning and decision-making methods an opening seminar should be organized in the very beginning of the project. All the persons who will extensively take part in planning or in the decision-making, must be present in the seminar.
- The planning process must be as clear and consistent as possible so that all parties can follow, how the planning proceeds and understand how the final results are got. Planning must be divided into distinct phases, which all have their own task. Special attention must been paid to the linking between phases. The choices made in every phase must be closely argued and results must be clearly reported. Proper conclusion documents after each phase are needed in order to improve the linking.
- In the beginning of the project it should be carefully considered what things are relevant to the work and in what extent things must be studied so that planning will not expand too much. In the strategic level system planning detailed examinations are not needed.
- In order to demonstrate the uncertainty of the future, alternative plans based on different scenarios should be made.
- In order to pay attention to the different values different planning alternatives should be made.
- Disaggregative decision-making methods should be used in impact assessment. In them the aim is not to find the one and only best alternative, but to produce pluralistic material for the decision-making. On system level many impacts are hard to measure or to give monetary value, so aggregative methods based on cost-benefit analysis are not suitable to be used as the only method.
- Strategic environmental impact assessment should be included in the transportation system planning.
- Land-use planning and transportation planning should happen at the same time. In that manner it is easier to be sure that goals important for society will be fulfilled.
- Versatile and extensive co-operation between different administrative and professional sectors is necessary in order to solve the conflicting planning problems and to develop environment in a sustainable way. Different kinds of seminars and forums are useful to increase co-operation and to ensure information needs.
- Citizen participation should be developed, because the inhabitants of the planning area and business-life and citizen organizations often have valuable information of local conditions and values. The participation should be placed in the beginning of the planning, when the planning problems, goals and alternatives are under discussion. In early phases of planning it is also possible to take conflicts systematically under consideration. Citizen participation can be made more effective by organizing negotiation committees of representatives of citizen and interest groups. Participation possibilities should be offered to individual citizens, too.
- It is important that municipal decision-makers take part in the planning process. Participation could happen for example in seminars. Information should be well organized. Participation and openness in the planning will increase the commitment to the plans.

SITUATION AFTER PLJ

Over four years have passed since the YTV Council approved the Helsinki Metropolitan Area Transportation System Plan. The first revisal of the Plan is going on at YTV, as the Council decided. The revision is to be ready in the beginning of year 1999. Among the first reports produced in the revisal were the "Assessment of the Present Day Traffic Situation" (YTV 1997b) and the "Assessment of the Implementation of the Helsinki Metropolitan Transportation System Plan" (YTV 1997a). The reports show that the share of public transport of all motor vehicle journeys has dropped to 39 % from the 42 % in 1988. Situation will not be better in the near future, because some of the public transport investments in PLJ 2020 have not been implemented as planned. Some actions improving the competitiveness of public transport have fortunately been made. That includes reduction of fares, some speeding measures,

and improving of passenger information and standard of bus stops. Also some bigger rail projects have got some financing. Road projects have been realized as planned: building of Ring II has started and actions on other ring roads are proceeding. So it still seems that the road projects have been implemented in larger scale than public transport projects despite PLJ.

Revisal reports also show that the number of inhabitants has increased faster than estimated in PLJ forecasts: over two thirds of the increase estimated for the forecast period has already been fulfilled. Thus, the forecast of the number of inhabitants has been revised. The forecasts of the number of jobs and the percentage of unemployed needed also some re-examinations, because they were quite optimistic.

In Prime Minister Lipponen's government programme there is an agenda point according to which the government will participate in the realization of the Helsinki Metropolitan Area transportation system in a project order which is listed in the plan mutually agreed by the municipalities involved. YTV has also proposed to the Finnish government a revision of the financing system for transportation investments in a way that improvements will be made in the financing and implementation of public transport projects, which are promoting the realization of the Helsinki Metropolitan Area transportation system development objectives.

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