

The Effectiveness of
Local Environmental Policy Planning

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1 Introduction

1.1 Subject of this study

In this report we present a summary of a study originally in Dutch, which can be read independently. The subject of this study is the success and failure of a certain form of planning in the Netherlands: municipal environmental planning. Dutch municipal environmental policy plans are strategic, indicative plans.

In this study we see planning as a special form of policy. Planning distinguishes itself from normal policy in that it is more focused on the connection between decisions and is more oriented toward the future. The distinction between policy and planning is only a matter of degrees. More than ordinary policy planning aims at coherence in the sense of connections between different decisions which are related on the basis of their consequences. Furthermore, planning will also be aimed more at future decisions than ordinary policy.

The focus of this study is a concept from the planning literature and from policy practice, which states that planning has certain advantages as compared to everyday decision-making. In this study we ask the question whether this specific view of the advantages of planning is also empirically verifiable. Here we distinguish between a planning conception from the planning literature and a planning form from planning practice. By a planning conception we mean an opinion which can be distilled from the planning literature about a development of the planning process which is considered desirable or meaningful (Van Vught, 1982: 79). A planning form is a design of a planning process which is found in policy-making practice (Hagelaar, 1992). Planning forms do not necessarily have to correspond to planning conceptions from the literature.

This study is based on the opinions of Dutch policy-makers at the national government level as reflected in government memoranda on environmental planning. This normative viewpoint provides us with the evaluation criteria for judging municipal environmental policy planning. The government's central objective with regard to environmental policy planning reads that planning has to result in a higher quality of decision-making.

The environmental planning system is in line with the so-called 'decision-oriented' planning concept which sees plans as guiding frameworks which enable us to take future decisions rationally and in line with their mutual coherence. Here the object of the planning is to take decisions. This object should be distinguished from the material object of planning: the physical environment. In its basic concept, the ideal model of the planning system, i.e. the ideas about the organization of the planning system and the course of the policy processes which have to take place within the planning system, dates back to 1984; it was given its final form after the publication of the bill for the Planning chapter (1989) and after this bill was discussed in parliament (June 1991). The plans of the case municipalities were approved in 1991 or later¹. As such the planning form 'propagated' by the government, i.e. the municipal planning form outlined by the planning system, will have had a greater or lesser influence on the municipal planning forms².

1.2 Aim of the study and problem definition

In the light of the criticism with regard to planning and even a certain 'anti-planning mood' prevalent among the authorities in the Netherlands, the growth of municipal environmental planning is remarkable. Among the larger municipalities with more than 30,000 inhabitants, virtually not a single municipality can be found which does not have some form of municipal planning by now.

¹With the exception of two plans, the plans we studied of the larger group of municipalities were from 1989 or later.

²The legal construction, the way in which powers were legally granted under the Environmental Policy Act and the traffic between the various institutions was organized, has only been in effect from March 1, 1993.

The statements on planning failures in the planning literature and policy practice rarely appear to have an empirical basis. Here we focus mainly on the statement that planning has failed because municipal environmental plans do not have any effect.. The phenomenon of municipal environmental policy planning has hardly been researched at all, however. Also the normative theories from the literature about how planning should take place have hardly yet been given an empirical foundation. In this study we assume that a normative planning conception from the planning literature cannot be judged as such, therefore. We can, however, examine to what extent a normative judgment from planning literature is found in planning forms in practice. Furthermore, it is possible to evaluate a number of assumptions on the relationship between the plan and ex-post linked decision-making from the normative planning concepts as to their reality content. Here we speak of the 'hard core' of the planning approach. The environmental planning system offers the possibility of judging this 'hard core' of the decision-oriented planning approach.

The purpose of our study is, therefore, to increase our knowledge of:

- the phenomenon of municipal environmental policy planning;
- the extent to which the government's objectives with respect to environmental policy planning are achieved at the municipal level;
- the circumstances under which municipal environmental policy planning is effective in terms of the government's objectives with respect to environmental policy planning;
- the circumstances under which the 'propagated planning form' as recorded in government memoranda, is effective.

With these research targets this study is in line with the school of thought in empirical planning research which wants to collect information about the performance of planning in practice. This as opposed to a second school of thought, which sees empirical research as a reason for a methodological reflection on what planners ought to be doing.

Our problem definition consists of the following questions:

1. Which objectives should be achieved, according to the central government, by means of environmental planning in general and municipal environmental planning in particular?
2. To what extent do we find a planned municipal environmental policy and to what extent do municipal planning forms correspond to the 'propagated planning form'?
3. To what extent are the objectives pursued under 1 achieved at the municipal level?
4. To what extent does planning at the municipal level contribute to the achievement of the objectives pursued under 1?
5. Which circumstances impede or promote this contribution and to what extent is this the case?
6. To what extent can the contribution of planning to target achievement be explained from the chosen planning form?

2 Theory and structure of the study

2.1 Planning and evaluation

Planning was defined by us as a special form of policy. This study is a policy evaluation. Evaluation basically is the judging of the representation or observation of a certain phenomenon (i.e. a certain situation or a change in a certain phenomenon) on the basis of certain criteria. To be able to judge planning, therefore, we need criteria by which we can judge. What do we judge when we speak of the evaluation of planning and how can we judge planning as a special form of policy? In the conventional approach to planning evaluation, both the contents of the plan, the effects of planning and the planning process itself can be the subject of evaluation.

A process evaluation of planning is problematic because a causal relation between efforts and effects is assumed but not evaluated. The evaluation is based on the idea that good efforts will result in good effects. Conversely, when evaluating the effect of planning there is a danger that we look only at the effects of planning on the policy field and that it is difficult to attribute these effects to planning. We do not know whether planning was responsible for the solution of a social problem if the plan was only an intermediate step followed by many policy measures. To ask the evaluation question on planning, therefore, it is essential that we first define what we see as the result of planning. In addition, to evaluate planning we have to determine what the relation is between planning and the results to be achieved. The way we look at the evaluation and implementation of planning depends on the underlying planning approach that is applied.

From the perspective of planning evaluation we distinguished three alternative approaches to planning. These different approaches have consequences for the function attributed to a plan and the intended result pursued through planning. The aim of blueprint planning is plan realization, while the function of the plan is to indicate the final picture that is to be realized. The aim of decision-oriented planning is to improve the quality of decision-making; here the function of the plan is to direct decision-making. In the 'planning-as-a-religion' approach, planning does not pursue any effects, but the plan has latent or political functions. The environmental planning system is based on the decision-oriented planning approach.

The conventional approach to policy evaluation looks mainly at the conformity between the objectives contained in the plan and the final policy effects. As we indicated above, such a conventional approach to the evaluation of plans leads to problems because it is difficult to make a connection between the planning objectives and the final policy effects. In evaluating strategic indicative plans, an alternative approach to the evaluation of planning can be distinguished, where the focus is on the concept of 'performance'.

However, in this study we do not satisfy ourselves with establishing the presence of performance. It is doubtful whether the performance, positive effort, yields the intended result. Therefore we here assume a different relation between planning and the results to be achieved, and will define other desired results.

In the previous paragraphs we stated that the *raison d'être* of planning lies in the advantage of planning, in the opinion of policy-makers, as compared to ad-hoc decision-making. The advantages of environmental planning are contained in a number of objectives that policy-makers at the government level aim to achieve through environmental policy planning. These objectives constitute the evaluation criteria in evaluating municipal environmental policy plans, instead of using the objectives of the plan itself as a basis, which would bring us back to the conformity criterion.

The alternative approach to the evaluation of planning from the decision-oriented planning approach results in assumptions on the way in which effective plans have an performance. Also the alternative approaches contain assumptions about the relation between

the plan and ex-post decision-making. We may speak of rival assumptions about the performance of plans.

On the basis of each of the three alternative approaches an ideal-typical theoretical model may be constructed of the relation between the plan and the ex-post linked decision. The planning forms 'directional framework' and 'blueprint plan' do not exist in practice; we can only speak of more similar or less similar. On the basis of the confrontation between the theoretical model and the planning form from practice we may arrange the planning form on a continuum of more 'directional' or less 'directional'. The core of each theoretical model is an effect pattern which describes a sequence of events and/or actions between plan and ex-post linked decision. By an effect pattern we mean here a sequence of events in the relation between plan and decision-making on the basis of the plan. Each model predicts the occurrence of a sequence of events: the effect pattern.

planning form	-->	effect pattern
'directional framework plan	-->	'performance pattern'
'blueprint plan'	-->	'conformity pattern'
'planning-as-a-religion'	-->	'no-effect-pattern'

In studying the individual decisions the principle of 'pattern-matching' is applied. Pattern-matching means that data from a single case can be used to test a theory (the pattern) when rival theories are compared (Campbell, 1975). The data from each of the studied decisions are then compared to three rival 'patterns'. To evaluate the theoretical models, hypotheses were deduced. We give these hypotheses, with their evaluations, in paragraph 3.8.

Next the relation between planning concept, planning system and municipal planning form is elaborated. We assume an indirect relation between the municipal planning forms and planning conception. In the new environmental planning system we find an operationalization of a planning conception by policy-makers at the government level. The influencing of the 'propagated municipal planning form' by the planning conception consists of three steps. The first step is the design of the municipal planning form in the planning system. The second step is the design of the planning forms of individual municipalities, and the third step is the application of the planning form by the municipal actors involved. These three steps constitute mutually linked processes, which take place in the relatively autonomous arenas of the actors.

The planning form 'propagated' by the government was realized when the new environmental planning system was drawn up. Here we see the assumptions from the planning system as a special policy theory consisting of different layers. The planning system contains a hard core which concerns assumptions on the performance of plans. The evaluation of this hard core means that we try to judge the theoretical model concerning the performance of plans, on which the planning system is based, for this specific policy field. This study is in line with the so-called integrative approach to the use of theories in evaluation research. Here the policy evaluator reconstructs the policy-maker's policy theory, and in addition makes use of social-scientific theory to formulate the (alternative) policy theories.

The translation of the planning conception into the planning system can be described as the first arena. In the study we outlined the various developmental lines which resulted in the decision-oriented planning approach. Of the three development lines of the decision-oriented planning approach we thereby distinguished particularly the planning-methodological foundations, i.e. the work done by 'followers', can be found in the new system. Following the

planning conception a plan is seen as a directional framework for later decisions.

To determine the success and failure of the planning system as a special policy theory, we first have to find out to what extent the planning system, indicated as a propagated planning form, was applied. Here the application of the 'propagated planning form' at the municipal level, indicated as the second arena, was seen by us as an implementation problem. We distinguish two types of explanations for a failure in implementation. The first explanation is that municipal actors do not know the 'propagated planning form'. The second explanation is that the 'propagated planning form' is unsuitable at the municipal level.

This unsuitability may be due to two groups of factors. Firstly, the *suitability of the municipalities according to the assumptions within the planning system* itself. This group of factors refers to assumptions within the planning system which indicate that certain categories of municipalities are not suitable for drawing up an environmental policy plan according to the 'propagated planning form'. This concerns factors such as the size of the municipality, the level of its environmental pollution, the state of its environmental policy, etc. These assumptions may be read as: it is better for small municipalities, municipalities with a limited environmental problem and/or municipalities without planning permission not to draw up any environmental policy plans. The 'propagated planning form' is considered less suitable in such situations.

Secondly, its suitability on the basis of the utility attributed to the 'propagated planning form' by the municipal actors. This group of factors concerns the opinion of the municipal actors, as part of their planning subject, on the usefulness of the desired planning form in their specific situation.

Firstly, the planning subject can have an explicit opinion on the 'propagated planning form' because municipal actors support a different planning approach and therefore do not apply the 'propagated planning form'. We have assumed that blue-print thinking in municipal policy practice has been stimulated by the design of the various financing schemes and that this may lead to more 'blue-print' planning forms and to not adopting the 'propagated planning form'.

We also assumed that the use of a 'planning-as-religion' approach may influence opinion about the utility of the 'propagated planning form'. Here we distinguished the following factors: the extent of political scope that municipalities feel they have, the political leanings of the alderman and/or municipal council, and political opportunism.

We may also find a more implicit utility judgment on the part of the planning subject under the influence of the 'advised planning form' recommended by the consulting firm commissioned by the planning subject or the 'theory-in-use' of the municipal actors involved.

The next question is to what extent these assumptions actually affect the application of the 'propagated planning form'. Here the application of the 'propagated planning form' is seen as an implementation problem. Assumptions with regard to factors which influence the application of the planning system originate both from policy theory and from supplementary social-scientific theory.

2.2 Structure of the study and data collection

This study can be seen as an evaluation study which aims to determine the extent of target achievement, determine the extent of its effectiveness and explain the extent of its effectiveness.

The subject of the study is based on two assumptions. The first assumption is that we see evaluation research as theory-judging research. The final aim of effectiveness research is to judge the core hypothesis that the planning form 'plan-as-a-directional-framework' contributes to target achievement on the objectives of the planning system, in terms of a higher quality of decision-making. The effectiveness of municipal environmental policy planning is explained

from three theoretical models about the performance of plans. These models are formulated on the basis of three rival planning approaches.

The second assumption is the use of the triangulation principle. The same research questions are studied independently of each other using different data files, different methods and different rival theoretical models.

The core of the research design consists of a multiple-case study. These cases consist of seven municipalities with more than 30,000 inhabitants, each with their own plan. Within these cases the environmentally relevant decisions with respect to the plan constitute the points of measurement. In addition, research was performed into the implementation of the environmental plans of all 110 municipalities with more than 30,000 inhabitants.

The first research question, i.e. the determination of the evaluation criteria, was answered by means of analysis of the contents of government documents. The second, descriptive and comparative, research question was answered using two different types of data files. The first file was a survey and an analysis of the contents of planning documents for all municipalities with more than 30,000 inhabitants. The second file concerned the same data, but now for the seven case municipalities.

The answers to the four remaining research questions were based every time on two different data collection methods, indicated as quantitative and qualitative decision-making studies. The quantitative decision-making study consisted of a contents analysis of decision-making documents of the mayor and aldermen. To this end decisions from three research periods of 3 months each were studied for each of the case municipalities. The first research period ended about one year before the plan was approved. The other two research periods began eight and sixteen months, respectively, after approval of the plan.

The qualitative decision-making study consisted of reconstruction interviews with officials in the seven case municipalities. The interviews were supplemented with the contents analysis of the decision-making documents.

The methods used to determine target achievement, determine effectiveness and explain effectiveness will be described successively in the respective paragraphs.

3 Research findings

3.1 Planning system targets

As we explained in paragraph 2, in this study we have chosen as evaluation criteria the government's official policy objectives with regard to environmental policy planning, indicated as planning system targets. The first research question, i.e. *which objectives should be achieved by means of environmental policy planning according to the central government*, was answered on the basis of a contents analysis of parliamentary documents, memoranda, plans and circular letters, both from the central government and from primary sources. In addition we make use of secondary and tertiary sources such as advice given by advisory bodies, and literature both from policy practice (consulting firms and municipalities) and from scientific sources. All relevant sources were analyzed in chronological order from the mid-seventies.

The *primary sources* are directly related to the design and the objectives of the environmental planning system and can be seen as the policy documents in which the official policy objectives were recorded. The aim of the environmental planning objectives is to improve (the quality) of everyday decision-making. These objectives concern the features which decision-making should have after planning. Motives analysis reveals the following objectives of environmental policy planning, as features of planned decision-making:

- taking future effects more into account in decision-making (future orientation-anticipation);
- in decision-making, providing more insight into the future effects of decision-making (future orientation-clarity);
- in decision-making, coordinating a decision better with other decisions of the planning subject (coherence);
- in decision-making, providing other actors with more opportunity to influence a decision (participation);
- in decision-making, providing information on the actions of the planning subject (motivation-clarity) and provide better arguments for decisions (motivation-justification).

3.2 Municipal environmental planning

The second research question reads *to what extent do we see a planned municipal environmental policy and to what extent do municipal planning forms correspond to the 'propagated planning form'*. By planned municipal environmental policy we mean here the presence of a municipal planning form in accordance with the 'propagated planning form' propagated by the government. This means the presence of a strategic environmental policy plan with an accompanying implementation programme, or a plan that consists of both a strategic and an implementational part, aimed at the planning functions from the planning system. *The internal function of the 'propagated planning form' can be summarized as 'to direct ex-post linked decision-making aimed at a higher quality of such decision-making'*. *This external function concerns the appeal to what is being done by third parties to coordinate their own decisions and actions to the intended government policy in the plan.* The purpose of the first part of the research question was on the one hand to give an impression of municipal plan creation, and on the other hand, to see to what extent the case municipalities are atypical of the larger group of municipalities. In the first place a comparison was made here between the planning processes of the larger group of municipalities and the case municipalities. The plans of the case municipalities originate from the same period as the overwhelming majority of the plans of the larger group of municipalities. According to their own statements, a large majority of the municipalities with more than 30,000 inhabitants (82 percent) drew up a

strategic environmental policy plan or a combination of a strategic and operational plan. As some of the more elaborate planning processes we mention particularly the plan creation processes of the case municipalities Daselo, Rijgewaard, Doterplas and Ronddam, as compared to the larger group of municipalities.

On the basis of the confrontation between the theoretical models as described in paragraph 2.1 and the planning forms of the case municipalities we have classified their planning forms on a continuum of being either more or less 'directional'. The extent to which direction is provided is a dimension on which the ideal types 'plan-as-a-directional-framework' and 'blueprint plan' can be placed opposite each other. Both ideal types constitute one of the extreme ends of the continuum.

The aim of the second part of the research question was to determine what municipal environmental planning looks like and whether and how the 'propagated planning form' (the planning system) has influenced the planning design. It appears that municipalities base their view of environmental plans only partly on the model of the 'propagated planning form'. Most plans have a more or less hybrid character. Insofar as the plans emphasize their function as a directional framework, this is always accompanied with a lot of attention being given to concrete measures of implementation. However, thinking about implementation measures is very often based on a final picture philosophy. This 'final picture' concept is inspired on the concept of an adequate level of realization of municipal tasks with regard to products, reference codes and a financial control system. However, such attention given to implementation tasks may also result in a strong internal concentration on the municipality's own services and organization instead of on its external function towards the policy's target groups.

When confronting planning forms from practice with the theoretical models we base ourselves on the planning formation process and on the plan. A planning form from practice is seen as a decision-oriented approach if the plan is meant as a directional framework aimed at the improvement of future decision-making. A planning form from practice is seen as a blueprint approach if the plan is meant as a final picture aimed at the actual implementation. A planning form from practice is seen as a 'planning-as-a-religion' approach if the plan is aimed neither at the improvement of future decision-making nor at the actual implementation of a final picture. This makes the 'planning-as-religion' approach difficult to determine because although the plan formation process may contain indications that the plan is meant as a desk-drawer plan with mainly political functions, this is indicated as such in the plan itself.

Confrontation between the theoretical model and the planning form from practice enables us to classify the planning form on a continuum of being more 'directional' or less.

Table 1 The case municipalities on a continuum of 'directionality'

<----- Extent of directionality of the plan					
Case municipalities	Daselo Rijgewaard	Ronddam	Doterplas	Bruiningen Putveld	Gielem
Consulting firm	GHI	DEF	ABC	JKL	MNO

The plans of the municipalities of Daselo and Rijgewaard we consider the most directional plans. The plan of the municipality of Ronddam is considered somewhat less directional. Its directional function is used less explicitly; rather, the plan is based on an objectives-measures-structure, although it does have a planning process with a clear independent value.

The Doterplas plan was written as a strategic plan, but in addition it strongly emphasizes its management contract character and work planning. Bruiningen and Putveld strongly emphasize the problem areas analysis of existing environmental tasks. Their plans also have a stronger final picture character than the municipalities mentioned earlier. Gielen is intended as a blueprint plan and also characterizes itself as such.

We also investigated to what extent the assumptions reconstructed about the application of the 'propagated planning form' can be refuted. The reason the 'propagated planning form' is not followed lies in the unfamiliarity of the planning system. Moreover, no connection was found between size of the municipality, environmental pollution, the state of environmental policy in the municipality or the political leanings of the municipal council or alderman. The attitude with respect to strategic planning in general and the municipality's view of its own political scope do appear to affect a negative opinion of the 'propagated planning form'. A possible factor here is the planning approach of the municipal officials involved.

A major factor, however, in whether or not the 'propagated planning form' is followed appears to be the planning approach of the consulting firm. In the case municipalities a clear connection was found between the municipal planning form and the 'advised planning form' recommended by the consulting firm. In Table 1 we also placed the five consulting firms involved on the continuum.

3.3 The extent of target achievement

The third research question, *to what extent are the intended objectives achieved at the municipal level*, was answered using quantitative and municipal data collections. All in all, 511 decisions were judged, distributed over the seven municipalities, on the basis of four main criteria: orientation toward the future, coherence, participation and motivation.

Within the *future orientation* criterion we differentiated between *future orientation-anticipation*, i.e. 'the more the future effects of decision-making are taken into account, the better such decision-making will be' and *future orientation-clarity*, i.e. 'the more insight decision-making provides into its future effects, the better it will be'.

The quantitative study found no significant increase on the indicator 'references to future effects, decisions and developments'. The qualitative study found mainly future orientation-anticipation, in the sense of a clearer view of and anticipation of expected future developments than in the initial situation, in strategic plans and memoranda within other policy fields. This applies particularly to civil engineering and traffic. Here the smaller municipalities lag behind, comparatively, in the areas of civil engineering (Bruiningen) and traffic policy (Bruiningen and Putveld). The largest municipalities were ahead in the initial situation as far as their traffic policy was concerned (Daselo and Rijgewaard).

The *future anticipation-clarity* on what may be expected in future of the municipal authorities in a certain policy field with regard to the way in which the environment will be handled within this policy field, is reflected particularly in strategic memoranda and plans in these fields. This clarity is relevant particularly in those policy fields where third parties feel a need for clarity because they are affected by this decision-making. The quantitative study appears to show an increase in strategic, environmentally relevant decision-making. In Rijgewaard, Ronddam, Bruiningen and Gielem we see a significant drop in the percentage of routine decisions from period 2 to 3.

The qualitative study does indeed show increased attention for the environment in strategic plans and memoranda within other policy fields, specifically civil engineering and traffic, as we indicated already under future orientation-anticipation. In a number of other policy fields we find new memoranda such as weed extermination (Ronddam, Daselo, Gielem), slipperiness prevention (Daselo), lasting construction (Ronddam) and guidelines for

requirement programmes (Doterplas). Future developments with regard to the environment and economics remain relatively unclear. The opportunities for the establishment or movement of businesses are relatively clear, but are strongly dependent on the case municipalities for their implementation. Within legal regulations, such scope can be explicitly used to attract employment (Doterplas, Rijgewaard) or the use of such scope can be explicitly rejected (Daselo, Gielem).

Coherence concerns the higher quality of ex-post linked environmentally relevant decision-making when seen more in connection with environmental policy. In the quantitative study a higher level of coherence was operationalized using the indicators 'the number of external integration decisions', 'the involvement of other services in decision-making', and 'the number of decisions taken at the initiative of other services' as compared to the initial situation.

In Daselo, Ronddam and Gielem the percentage of external integration decisions rises from period 1 to period 2. This increase is a significant one in Daselo and Ronddam. In Doterplas and Rijgewaard we see a significant drop from period 1 to period 2. From period 2 to period 3 all municipalities show an increase. However, this increase is significant only in Putveld and Gielem. No significant rise is seen either in the initiatives from the other services.

The qualitative analysis shows that in most of ex-post linked decision-making there is more of a relation with environmental policy. Here coherence can be operationalized as being related mainly to the contents of decision-making (in-depth coherence), or being related mainly to its process (process-type coherence). We see more of in-depth coherence between civil engineering and environment and between traffic policy and environment, because attention is more systematically paid to the environment in civil engineering and traffic policy. However, we also see more of a process-type coherence particularly for civil engineering because decision-making takes environmental aspects into account at an earlier stage and in a more systematic way.

Concerning location policies and lasting construction we may say that there is more coherence, where formerly there really was hardly any coherence. In operational decisions there is more coherence because as opposed to the initial situation, environmental aspects are taken more into account.

Participation involved a higher quality of decision-making, as more other actors were capable of influencing decision-making. In the quantitative study we could only state whether decision-making that was relevant to other actors took place more often. Nothing could really be said about their actual involvement on the basis of the quantitative study. On the basis of the qualitative study we can say that in decision-making where participation procedures were also present already in the initial situation, such as in civil engineering and traffic plans, such participation did not increase. Within the other policy fields no general differences in the level of participation could be seen between the municipalities on the basis of the examples we found. Participation appears to have increased particularly where the interests of policy target groups are affected, particularly when the municipality itself possessed few instruments in the policy field in question.

We operationalized the *motivation* criterion on the basis of the question whether ex-post linked decision-making was argued more extensively. This concerns the environmental arguments. The quantitative study showed that in the municipalities where this could be verified, no more was discussed instead of initialled in the meetings of mayor and aldermen. The extent of decision-making increased significantly only in Gielem. No criterion could be linked, in the quantitative study, to the criterion of motivation-clarity.

It is difficult to draw conclusions on the basis of the qualitative study about the level of motivation. In civil-engineering and traffic plans environmental aspects are given more attention, and environmentally relevant choices are motivated more extensively.

3.4 The extent of effectiveness

The failure of the propagated planning form, defined as the failure to achieve the objectives with regard to planning set by the policy-makers at the central government level, may be due to the application of the propagated planning form or to the inadequacy of the propagated planning form.

To be able to speak of effectiveness, three consecutive conclusions need to be drawn, therefore. First it is necessary to determine whether the 'propagated planning form' is indeed present. On the basis of the answer to the second research question we have assumed that the 'propagated planning form' is sufficiently present in the case municipalities to be able to ask the effectiveness question.

Secondly, we must be able to conclude that the plan-as-a-directional-framework does indeed contribute to the quality of decision-making. Policy theory, in the form of the 'propagated planning form' cannot then be refuted. The core hypothesis of the 'propagated planning form' reads that the planning form 'plan-as-a-directional framework' yields a higher extent of target achievement than the planning form of 'blueprint planning'. This is the answer to the fourth research question.

Thirdly we must be able to conclude that the environmental plans work under the circumstances as they were intended to work. Only after we have answered the fifth research question, *which circumstances obstruct or stimulate the contribution of planning at the municipal level to the achievement of the intended objectives*, can we answer the question to what extent the total or partial failure of the propagated planning form results from inadequacy of the propagated planning form.

The fourth research question, *to what extent does planning at the municipal level contribute to the achievement of the intended objectives*, is the effectiveness question. In this study effectiveness research is seen as theory-evaluating research. The effectiveness question is the evaluation of the core hypothesis from policy theory which states that the planning form 'plan-as-a-directional-framework' contributes to a higher extent of target achievement.

Target achievement refers to the planning system objectives formulated in terms of a higher quality of decision-making. In answering the effectiveness question use was made of the contents analysis of decision-making documents of the Mayor and Aldermen, i.e. the quantitative part, and interviews with policy officials, i.e. the qualitative part. In answering the effectiveness question we followed three strategies: a correlational approach, a quasi-experimental approach and the modus-operandi method.

In the correlational approach we examined the covariance between the extent of directionality of the planning form and the extent of target achievement. No covariance was found either in the qualitative or in the quantitative part of the effectiveness study. This means that no higher extent of target achievement was found for the planning forms further to the left of the continuum which correspond more to a plan-as-a-directional framework.

In the quasi-experimental approach we assumed that the case municipalities could be divided into two groups: an experimental group where the plan-as-a-directional framework is present, and a control group where the planning form of 'blueprint planning' is present. Both in the qualitative and the quantitative part of the effectiveness study, no clear difference was found between the experimental and the control group. This means that, given the assumption that the case municipalities can be divided into two groups, no higher extent of target achievement was found for the experimental group with the planning form 'plan-as-a-directional-framework' than for the control group with the planning form 'blueprint planning'.

To supplement the correlational and quasi-experimental way in which we have answered the effectiveness question, a limited modus-operandi method was used. Limited in the sense that we did not try to eliminate possible rival factors, but precisely the explanatory planning form factor. For this purpose we examined, both in the quantitative and in the qualitative part

of the study, whether the modus operandi of a 'plan-as-a-directional-framework' is present empirically. On the basis of policy theory we may say that the modus operandi of a 'plan-as-a-directional-framework' is present as a specific reason when there is 'conformity with reference to the plan' or 'argued deviations from the plan'.

In 39.4 percent of ex-post linked decision-making it could be established that the contents of the decisions were according to the plan. In 2.2 percent of decision-making it was found that decision-making explicitly did not correspond to the plan. In a considerable percentage of ex-post linked decision-making, i.e. 58.4 percent, correspondence to the plan could not be established. This means that on the basis of the wording of the plan and the decision it could not be determined whether or not the decision corresponded to the plan. Only a small percentage of decisions, 10.9 percent, referred explicitly to the environmental plan. In a small percentage of decision-making (2.8 percent), where there was reference to the plan, conformity could not be established.

Comparison between the municipalities showed no clear relation between the percentage of references and the extent of directionality. A remarkably high percentage of references was found for the municipality of Ronddam. Much of the ex-post linked decision-making here had a strategic character. Sectoral plans and memoranda referred to the environmental plan. Apart from having the highest percentage of references, in Ronddam also the most concrete references to measures and objectives were found.

This modus operandi was present to a limited extent for all case-municipalities, with Ronddam clearly far above average. However, no clear relation was found either in the qualitative or in the quantitative part of the effectiveness study, between the extent to which the modus operandi of the planning form 'plan-as-a-directional-framework' was present and the extent of directionality of the planning form.

3.5 Obstructive and stimulating circumstances

The explanatory part of the study focuses on the supposed connection between planning form and ex-post linked decision-making. In the explanatory part we do not try to eliminate all rival explanations of a higher quality of decision-making, but to evaluate a theoretical model of this supposed connection. In paragraph 2 we formulate three rival models for this supposed connection.

The fifth research question, *which circumstances obstruct or stimulate the contribution of planning at the municipal level to the achievement of the intended objectives*, concerns the question of whether the plans work under the intended circumstances. This question precedes an opinion on the theoretical model. The stimulating and obstructive factors were arranged on the basis of their influence on key elements of the effect patterns distinguished in the theoretical models, i.e. knowledge of the plan, the plan's relevance to ex-post linked decision-making, consultation of the plan and use of the plan.

Basically, all respondents were aware of the existence of an environmental plan within their municipalities. However, clear differences were found as to their *knowledge* of the contents of the plan. Respondents were asked to mention plan statements in their own policy fields. On the basis of the qualitative analysis the differences in knowledge of the plan between municipal respondents appear to be due to three factors: the *organizational form* of the municipality, the *planning process* followed and the *policy field*.

From the qualitative analysis various factors emerged which made the environmental plan not *relevant* to ex-post linked decision-making. One of the first factors is the translation of the environmental plan, the initial policy, into the municipality's own sectoral reference frameworks, i.e. the municipality's *own (sectoral) strategic policy*. It is not the environmental plan that is considered relevant by the respondents to their own decision-making, it is their own memorandum or their own plan. A second factor appears to be the *influence of government*

policy within certain policy sectors on municipal policies. Here the coordination between the policy sector in question and the 'environment' took place already at the government level. Rather than the environmental plan, *sectoral state policy* is seen as relevant by the respondents. A third factor could be *regional influence*. Policies are determined regionally, and regional policy is seen as being relevant rather than the environmental plan. A fourth factor that limits the relevance of the plan to ex-post linked policies is the *newness of the policy*. Previous to the environmental plan, other policy sectors have sometimes drawn up their own memoranda or plans, in which attention is paid to environmental aspects. Due to the influence on the planning process of the actors addressed, points of action from such sectoral memoranda find their way into the environmental plan.

Even if the environmental plan is considered relevant, this does not have to result in *consultation* of the plan. Various mechanisms can impede actual consultation. Environmental arguments can be introduced in *consultation situations* between the environmental department and the other departments. Certain decisions are weighed in full by this department itself.

Knowledge, relevance and consultation of a plan do not yet have to result in the *use* of a plan, in the sense that this plan influences considerations during ex-post linked decision-making. A number of factors can reduce the influence of the environmental plan in the argumentation to zero. Here a clear distinction has to be made between the influence of the environmental plan and the influence of 'environment' in the argumentation in general. One of the first factors which could result in the plan not being used, although it is known, is considered relevant and was consulted, is the *relation between policy sectors*. A second factor is the *politization of the policy issue*. A third factor is *finance*. Business-economic freedom of choice is not always present.

3.6 Empirical tenability of the theoretical models

As a second factor of failure following the application of the propagated planning form we mentioned the adequacy of the propagated planning form in the sense of the empirical tenability of the propagated planning form. We answer the last research question, *to what extent can the contribution of planning to target achievement be explained from the plans that were chosen*, on the basis of an evaluation of the three theoretical models about the performance of the various types of planning forms. These models indicate the ideal-typical performance models for a certain planning form. In planning practice, however, we do not find these ideal types but intermediate forms on a continuum of both the ideal types. The municipal planning forms can be placed on a continuum of more or less similar to the 'plan-as-a-directional-framework' or 'plan-as-a-blueprint'. On the basis of the (rival) theoretical models, we expect a certain effect pattern to dominate within each planning form.

In the 'blueprint planning' planning form we expect the effect pattern 'conformity' to dominate, rather than the 'performance pattern'. In the 'plan-as-a-directional-framework' planning form we largely expect, in addition to the 'conformity' effect pattern, the 'performance pattern'. In the 'plan-as-a-religion' planning form we expect to see more of a 'no-effect pattern'. No 'plan-as-a-religion' planning forms were found in the case municipalities. On the continuum with the dimension 'extent of directionality' the plans were organized on the basis of the intended result. We assume that in the municipalities to the right of the continuum there will be more correspondence to the plan-as-a-blueprint-model and use aimed at plan realization. In a municipal planning form more to the left of the continuum there is more of a similarity with the 'plan-as-a-directional-framework' model and the use of the plan is aimed at performance.

3.7 The occurrence of the effect patterns

If the planning subject is familiar with the plan, consults the plan and decides in accordance with the plan, it is called a *conformity effect pattern*. Such a pattern is seen only in the case of concrete plan statements which require an action on the part of the planning subject, such as drawing up a memorandum and initiating consultation. Here the ex-post linked decision does not have to have the form of an operational decision.

If the planning subject is familiar with the plan, considers the plan relevant, consults the plan and uses the plan explicitly in justifying his decision, it is called an *performance pattern*.

The quantitative decision-making study shows that we rarely see an performance in the sense of the various different decision-making situations: conformity, reasoned deviation and rejection. This means explicit written references to the environmental plan in the resolutions of mayor and aldermen are rare. In other words, the environmental plans play a limited part in the explicit justification of decision-making. Because explicit justification is lacking, it is difficult to determine whether the similarity between plan and operational decision was not based on coincidence. This is only possible when there is explicit mention of the plan during decision-making. The picture that explicit justification is rarely found is confirmed by the qualitative analysis.

In a reference to the environmental plan in the sense of an explicit reference to a concrete plan statement, the performance pattern largely corresponds to the conformity pattern. The difference lies in the intention with which the plan is used: as a realization of a previously stated plan statement to be performed, or to support an ex-post linked decision. After all, the performance of a plan statement may be the main argument in favour of a certain ex-post linked decision.

The *no-effect pattern* was operationalized by us on the basis of conditions such as the lack of knowledge of the plan *or* not considering the plan relevant although it was relevant, *or* not consulting the plan although the decision gave reason to do so, *or* if the plan is deviated from without any argumentation. The analysis shows that many respondents do not know the plan in the sense that they are unable to mention any concrete plan statements or do not consider the plan relevant to their choice situation for various reasons. The plan is rarely consulted. In a large part of the ex-post linked decisions, it appears that ex-post linked decision-making would have taken place in the same way if no environmental plan had been present.

3.8 Evaluation of the hypotheses

We deduced hypotheses on the basis of the three theoretical models. These hypotheses have the following form:

The more a municipal planning form corresponds to the
(*blueprint plan/plan-as-a-directional-framework*) model
and the more its use is directed toward
(*plan realization/performance/latent function*),
the more will we find
(*conformity pattern/performance pattern/no-effect pattern*).

These hypotheses can be depicted using the following diagram:

Planning form	Use	Effect pattern
1. More plan-as-blueprint	Plan realization	More conformity pattern
2.	Performance	Less conformity pattern
3.	Latent function	More 'no-effect' pattern
4. More plan-as-a-directional framework	Plan realization	Less performance pattern
5.	Performance	More performance pattern
6.	Latent function	More 'no-effect' pattern
7. More plan-as-blueprint or more plan-as-a-directional framework		Less 'no effect' pattern

Re 1. This hypothesis has to be partly rejected because the conformity pattern appears to depend on the type of plan statements. The conformity pattern occurs particularly in the case of certain plan statements in which certain actions and measures were recorded in the plan. On the basis of the plan statement the action is then initiated.

This type of plan statements is found more frequently in blueprint plans. Because of this, when there is more correspondence to the 'plan-as-blueprint' model and when its use is aimed more at plan realization, we also see more of a 'conformity pattern'. This hypothesis has to be rejected for those situations where plan statements are aimed at plan realization but are insufficiently concrete.

Re 2. This hypothesis does not have to be rejected. The analysis shows that if a blueprint plan is not aimed at plan realization but at directionality, the conformity pattern does occur less frequently. All the plan forms more at right on the continuum contain plan statements to a greater or to a lesser extent in the form of targets or assumptions which are directional for later decision-making and do not have any significance for a concrete implementation of the plan. We usually see no conformity pattern for this type of plan statements.

Re 3. The third hypothesis has to be rejected on the basis of our study. The 'no-effect' pattern does not depend on the type of use. The no-effect pattern also appears to occur quite frequently in plan statements aimed at plan realization or performance, if no relevant plan statements were taken into account.

Re 4. The fourth hypothesis has to be rejected. The 'performance' effect pattern is rare. The performance study does show that much of the decision-making takes place according to the plan, but explicit references to the environmental plan are rare. The performance pattern occurs both at left and at right on the continuum. The performance pattern is seen at the centre of the continuum most frequently for the case municipality of Ronddam.

Re 5. The fifth hypothesis cannot be rejected. If a directional framework plan does not focus on guidance but on plan realization, the performance pattern does indeed occur less frequently. All planning forms further to the left of the continuum contain plan statements in the form of targets to a greater or lesser extent, principles which are more or less directional for future decision-making but are mainly of importance for a concrete implementation of the plan. These statements do not result in an performance pattern but in a conformity pattern.

Re 6. This hypothesis complements hypothesis nr. 3, and also this hypothesis needs to be partly rejected on the basis of the study. As we mentioned earlier, the 'no-effect' pattern appears to occur significantly in plan statements aimed at plan realization or performance. Here the 'no-effect' pattern occurs particularly because relevant plan statements are not taken into account. In a 'plan-as-a-directional-framework' model with an application aimed at performance, knowledge of the plan is seen as a necessary requirement for performance. The study shows that this necessary condition for performance often cannot be satisfied. Irrespective of the type of plan statement, knowledge of plan statements is often lacking on the part of the ex-post linked decision-makers.

Re 7. The analysis shows that both in a municipal planning form which corresponds more strongly to the 'plan-as-a-directional-framework' model, and in the planning forms which correspond more to the 'plan-as-blueprint' model, many 'no-effect' patterns are found. This is mainly due to the fact that the environmental plan is not known, which is a condition for both the other patterns, or to the fact that the plan is not felt to be relevant. This hypothesis has to be rejected.

4 Conclusions

4.1 Summarizing conclusion

On the one hand, municipal environmental plans appear to have a mixed strategic and operational character, on the other hand they appear to have a hybrid character in terms of their function. Hybrid in the sense that they are supposed to have both a directional function as well as being aimed at plan realization.

The core hypothesis from the 'propagated form of planning' reads that the planning form 'plan-as-a-directional-framework' contributes to a higher quality of ex-post linked decision-making. The study shows that to a limited extent target achievement occurred in the sense of a higher quality of ex-post linked decision-making. However, the contribution of plans to such target achievement, irrespective of their planning form, could be demonstrated only to a very limited extent. Also in the most directional plans, the intended performance pattern (knowledge of the plan, considering the plan relevant, consultation of the plan and the eventual use of the plan by the planning subject in the sense of referring to the plan in decision-making) appeared to be present only in a small part of ex-post linked decision-making.

Firstly, these intermediary processes between plan and ex-post linked decision-making appear to be present to only a limited extent; secondly they do not appear to depend on the extent of directionality of the plans. Performance was found mainly in ex-post linked strategic decision-making.

4.2 Notes on our conclusions

Are the planning sceptics now justified in their conclusions? In paragraph 2.1 we described the so-called 'planning-as-religion' approach. In essence, their position is that what happens under the influence of planning does not differ very much from what would have happened without planning.

Four things should be noted with regard to our conclusions. *Firstly*, strategic indicative plans constitute only a small *part of the total explanation of quality of decision-making*. In evaluation research terms we speak of a weak 'treatment' or 'operation'. The planning form is part of a complex of conditions for a higher quality of decision-making.

In our study we were dependent on a case-study approach for judging our core hypothe-

sis. The possibilities of a case-study approach for judging hypotheses are generally limited. It is particularly difficult to exclude rival explanations in such an approach. Therefore, in this study we did not focus on the elimination of such rival explanations, but on the rejection of the core hypothesis; does the 'plan-as-a-directional-framework' contribute to a higher quality of decision-making. *So this does not prove that the plans, in spite of their limited target achievement, play a minor role in relation to other conditions for a higher quality of decision-making.* After all, the limited extent of target achievement may well be due to an unknown rival explanation which explains away the effectiveness of the planning form in relation to other factors.

In this study, instead of trying to eliminate every imaginable rival explanation for a higher quality of decision-making, we have focused on the processes between plan and ex-post linked decision-making. The relation between the planning form 'plan-as-a-directional-framework' as a cause and a higher quality of decision-making as an effect is not a simple causal relation which excludes all other circumstances. This study cannot provide an answer to the question in relation to, and together with, which other conditions the planning form 'plan-as-a-directional-framework' may possibly result in effective plans.

Our *second remark* concerns our *theoretical models* of the intermediary processes. The theoretical models used of the process between plan and ex-post linked decision are of a relatively simple nature. We have good reasons for limiting ourselves to simple models. To draw up rival theoretical models a relatively simple basic model is required. Otherwise it is virtually impossible to give the rival theoretical models an equal chance of being rejected. A more detailed model, which also looks at a classification of plan statements, for instance, may yield a more positive opinion on the effectiveness of directional framework plans.

Apart from using relatively simple theoretical models, we have also imposed on ourselves the limitation of a one-actor model. The argument for doing so is the supposed 'unity of planning and acting' in the decision-oriented planning approach. In our opinion this is an essential feature of the 'decision-oriented' performance study. If we abandon the unity of planning and acting, we arrive at a completely different form of 'performance research'. We will discuss this in more detail in paragraph 4.5.

Our *third remark* concerns the fact that in this evaluation we restrict ourselves to an *evaluation based on the planning system objectives*. We can also imagine other evaluation criteria. To indicate planning objectives aimed at e.g. acquiring 'commitment' or political support, we use the term 'latent functions of planning'. As one of these latent functions of environmental policy planning we can mention the fact that an environmental plan can strengthen the position of the environmental aspect with respect to other interests. An evaluation which uses this latent function as a criterion could result in a far more positive opinion on environmental policy planning. Similar findings in performance research on the (in)effectiveness of plans have also resulted in further examination of these latent functions. In the present study we focus on the processes between the formal plan and ex-post linked decision, instead of on the influence of the way in which the plan was accomplished. This would require not just a different form of decision-making, but also pass over policy theory. After all, this theory does *not* assume that desk-drawer plans have to be drawn up if necessary, because the effect on later decision-making depends on a positive implementation process. In other words: we focus on the effects of the plan on ex-post linked decision-making instead of the effects of the implementation process on ex-post linked decision-making. We will go into this in more detail in paragraph 5.5.

A *fourth remark* concerning our conclusions has to do with *research choices*. Due to the choice of population, part of ex-post linked decision-making was intentionally excluded from the decision-making population. Particularly those decisions that were mandated in part of the case municipalities - the most extreme form of autonomous official decision-making - were

left out of this population. This causes a distortion within the population of decision-making that we studied, in the sense that it contains fewer operational decisions and operational decisions of a certain type because of this.

The question is whether this leads to underestimation of the value of the plan. The distinguishing criterion in the decision-oriented planning approach between operational and strategic decisions is the level of 'commitment', the extent to which the planning subject commits himself. Our study has shown that environmental policy plans result in few decisions with a high level of commitment. As mentioned before, much ex-post linked decision-making is of a strategic nature. Because of the gradual performance of initial environmental plans in ex-post linked plans and eventual day-to-day decision making, we obtain little information about the relation with eventual operational decision-making.

4.3 General applicability of the conclusions

The conclusions of a case-study research design can be generalized only to a limited extent. In our case-study design we can only speak of an analytical general applicability. To what extent can the conclusions of this study be generalized to other policy fields? This study results in an opinion on the way in which environmental policy plans have an performance. The three theoretical models yield rival effect patterns regarding the way in which a plan influences ex-post linked decision-making. Here the central question is whether a different type of planning form results in a different performance of the plan. Here we relied heavily on the operationalization of the 'performance' concept in the decision-oriented planning approach.

Our ambition at the outset of this study was to provide an empirical foundation for a specific planning concept, the 'decision-oriented planning approach'. However, it is not this approach that is being evaluated, but its specific performance on the environmental planning system. This concerns a limited part of the assumptions from the decision-oriented planning approach, connotated as the 'hard core' of this approach. This hard core concerns the process between plan and ex-post linked decision-making. If we do see a contribution to an empirical planning theory, it was accomplished in a roundabout way. First, the relation between planning concept and municipal planning form is an indirect one. We have tried to demonstrate that the environmental planning system is based on a planning concept, and that this was eventually applied within the studied planning forms at the municipal level.

Secondly, an opinion on a specific operationalization of the planning concept cannot simply result in an opinion on the planning concept itself, insofar as this approach can be seen as a planning methodology. A methodology is not open to empirical evidence. However, we feel that the reality content of an elaboration of the strategic choice approach is certainly significant. The relation between this study and the decision-oriented planning approach does not amount to an opinion on this approach, but it does result in a reflection on this approach.

The development of the decision-oriented planning approach is characterized by a reflection on empirical findings. Although this does not strictly concern an empirical theory, which would focus on the question how decision-making in relation to the plan is actually accomplished, in its elaboration such reflection on new applications has always resulted in further development and adaptation of the methodology. Examples are the LOGIMP experiment and the structure plan project in the UK and in the Netherlands the Dommeldal study. Comments on the decision-oriented planning approach on the basis of this study are necessarily, and result in a reflection based on our empirical findings on the planning conception described in paragraph 5.5.

4.4 Position of this study

As an evaluation study, this study is in line with the so-called 'performance research' on strategically indicative plans. As the title of this study indicates, the effectiveness question is the main subject of this study. In the 'Twente'³ tradition of effectiveness research, effectiveness of strategic plans is defined as the contribution of these plans to achievement of the planning system objectives, to be understood in terms of quality of ex-post linked decision-making. Ex-post linked decision-making is environmentally relevant decision-making which takes place after the plan has been approved, and which is influenced by the plan.

In the performance study the solutions to problems that occur during the evaluation of strategic, indicative plans is solved by looking at the 'performance' of plans. Many performance studies satisfy themselves with the statement that performance processes have been initiated. Other, non-decision-oriented performance studies do not find this acceptable, and once again start looking for conformity with an message contained in the content of the plan. Here we do not see 'performance' as the desired result of planning, but as a theoretical model of the process between plan and ex-post linked decision-making. We do not satisfy ourselves with a positive opinion on the efforts that were made in relation to the plan, but we look for the advantages planning is supposed to have compared to 'ordinary' policy.

As a solution to problems with the conventional approach to the evaluation of strategic, indicative planning we see a shift in evaluation criteria from planning content to planning system objectives.

4.5 Comments on the performance research

Firstly, we feel that there are really *two types of performance research*. In the study we made various comparisons between the existing performance studies. Our study approaches performance from the perspective of one plan created by one planning subject, which aids ex-post linked decision-making by the planning subject in question. This type of performance research can also take place on what is known within the strategic choice approach as higher levels of planning, for instance when evaluating destination plans on the basis of a regional land-use plan. Ex-post linked decision-making by the planning subject still takes place within the same level of planning.

Performance research that investigates whether a planning subject adopts the 'messages' from plans from a higher level of planning for his own decision-making, is of a totally different nature. This type of performance research is not more relevant, or less, but is based on a different theoretical framework, since performance research that is in line with the decision-oriented planning approach assumes - although it is not always followed through - that 'unity of planning and acting' is required. The plan-as-a-directional-framework directs ex-post linked decision-making. This presupposes a connection between plans and operational decisions. It also implies that many plan drafters and ex-post linked decision-makers somehow belong together, that they are part of a greater whole. Concerning the performance of plans at a higher level of planning on plans at a lower level of planning, we can only speak of decision-oriented performance research if we assume a 'unity of planning and acting' between both levels of planning.

We pointed out the criticism that 'unity of planning and acting' is seldom found in government organizations. The problem that was found, i.e. that authorities are subdivided

³ Here we refer to the evaluation study carried out by the Faculty of Public Administration and Public Policy of the University of Twente, which was performed mainly within the Department of Policy Processes.

into various departments and that this results in communication problems between decision-makers who should formally be seen as part of the planning subject, is a very major one in environmental policy plans due to the integrational nature of environmental policies and the large number of departments involved.

In the environmental policy plans of municipalities we have assumed this unity, because we have defined the Mayor and Aldermen as a planning subject. We do not distinguish between formal decisions taken by Mayor and Aldermen and official memoranda. Unity of planning and acting is assumed by the direct link between the drafter of plan (Mayor and Aldermen), the institution which approves the plan (Council) and the ex-post linked decision-makers (Mayor and Aldermen or persons authorized by them). Justifying decrees is still the task of the Mayor and Aldermen, even although the preparation of such a decree is not a monolithic whole. 'Unity of planning and acting' remains valid also in the theoretical models. Here we do not use models involving more than one actor.

The empirical findings of our study indicate that it is sometimes doubtful whether the planning subject can be seen as a monolithic entity. Knowledge and relevance of the plan are not always self-evident in other municipal departments.

However, this does not detract from the principle that a plan-as-a-directional-framework can only function as a reference framework for later decision-making if there is 'unity of planning and acting'. After all, this reference framework is seen as an advance investment to be able to take 'better' decisions later on. This does not mean that a plan-as-a-directional-framework does not influence the ex-post linked decision-making by other actors. The drafter of the plan and the ex-post linked decision-maker do not have to be the same actor as long as there is a certain level of unity of planning and acting. Otherwise the plan cannot be of any significance to the quality of the ex-post linked decision-making. *In our opinion, work needs to be done on the 'unity of planning and acting' in environmental policy to enable environmental plans to really function as directional frameworks.*

Secondly, we feel that in performance studies it should not automatically be assumed that a strategic plan is always a plan as a directional policy framework. The argument that of course a plan always contains an element of a policy framework is not valid here. Whether a plan can be seen as a plan-as-a-directional-framework must be determined in actual fact. Planning methodology should not be confused with a normative planning conception.

In the development of the decision-oriented planning approach there has been a shift in thinking about the value of a blueprint plan. Initially there was strong resistance to the concept of a plan as a diagram which can and should be implemented straight off, but later on adjustments were made to the situation in which the plan is implemented. Under certain conditions, where there is little or no uncertainty, so-called 'project plans' - i.e.: blueprint plans - can definitely be used. Also in the discussion on the desired form of municipal planning, thinking about various plans under various conditions is again found in all three of the arenas we distinguished. In the Second Chamber there has been discussion about what form of municipal planning would be most suitable at the municipal level given the municipal circumstances. This discussion was also held at the municipal level when drafting municipal environmental policy plans. The acceptance of both types of policy plans, given the existing level of uncertainty, does not mean, however, that strategic environmental plans should not be suitable for use as performance plans. On the basis of policy theory, as outlined in chapter 3, strategic environmental policy plans must be directional ones in view of the uncertainties facing strategic municipal environmental policy. From this it follows that no strategic municipal environmental policies can be followed using a blueprint plan. On the basis of our empirical findings we should state that no strategic municipal environmental policies can be followed using a blueprint plan if this plan also actually fulfills the function of a blueprint plan aimed at plan realization.

5 Concluding remarks

5.1 Notes on the planning system

In the study we discussed Fischer's four evaluation levels (1980) in policy evaluations. The first five research questions of this study deal with what Fischer calls the level of 'verification': the question whether the evaluated policy serves to achieve the set objectives. Forming an opinion on municipal environmental policy planning involves more, in this study, than just the target achievement and effectiveness issues. The questions about the *raisons d'être* of planning in general and municipal environmental policy planning in particular enable us to form an opinion on the suitability of planning system targets within the municipal context. This is the 'validation' level of opinion, i.e. the question whether application of the evaluation criterion was justified. This is in line with the previously formulated need for knowledge based on the social and scientific background of this study.

Further we referred to the three levels distinguished by De Ridder and Schut (1995) in the evaluation of planning systems: the ideal model, the legal construction and the actual behaviour. The ideal model of the environmental planning system has been in existence ever since the Memorandum 'More than the sum of its parts' was published in 1984. However, the legal construction has been in existence only since the appearance of the draft chapter on planning from the Environmental Provisions Act (WABM; February 1987). This legal construction came into effect for municipalities only on March 1, 1995.

On the basis of evaluation of the case municipalities and the great majority of the larger group of municipalities⁴, all of which had drawn up their plans before this legislation came into effect, the actual functioning of the legal construction cannot yet be determined. The legal construction of 'taking into account' cannot yet be judged on the basis of this study⁵.

However, the main question here is how, on the basis of this evaluation study, we can answer the question: 'What is the actual development of planning processes within the framework of this planning system, and to what extent are the intended functions really fulfilled here?'

Out of the possible functions that might be fulfilled by a planning system, such as internal coherence, task distribution, horizontal coordination, vertical coordination, systematic policy preparation and democratic policy preparation, we focus on only a limited part, i.e. the so-called internal and external function of the plans. This study offers only a limited basis for an opinion on the remaining functions.

The internal function concerns the guiding of future decisions taken by the municipality itself. The external function is the consequence of publicizing the plan. By publicizing policy intentions, actors in the environment such as citizens, firms, social organizations and other authorities gain an insight into the type of behaviour which is to be expected from the municipalities, so that they can adjust their own decision-making to this.

The present evaluation of the case municipalities plus the larger group of municipalities offers only a limited basis for the evaluation of the assumptions on which the planning system is based. We have indicated these assumptions as a special policy theory. The part of these assumptions which concerns the municipal planning form we called the 'propagated planning form'.

In paragraph 3.2 the case municipalities were classified on the basis of their internal

⁴ In this study, the 110 municipalities with more than 30,000 inhabitants.

⁵ However, in connection with this study a graduate study was performed into the way in which municipalities, possibly in anticipation, deal with the in-depth and procedural aspects of the rules from the planning system (e.g. Buil, 1992, Ten Dam, 1993, Van de Meer, 1995; viz. also Zandstra, 1989).

function: the extent of directionality. Their directional function, even for the most directional plans of the case municipalities, remains a limited one. The key to this lies in the way the plan is utilized. All the plans were also aimed at plan realization, to a greater or lesser extent. This hybrid character results in plans which pursue both directionality and plan realization. As we saw in the previous paragraphs, they were used mainly when drawing up sectoral strategic plans and memoranda in relation to the plan and when realizing concrete points of action. Wherever the ideal model of the planning system in itself clearly results in directional frameworks, the eventual application of the planning system at the municipal level results in hybrid plans. This does not answer the question to what extent the municipal plans can fulfill an internal function. Apart from the existence of a planning system, municipalities appear to feel a need for an overall strategic framework. The municipalities themselves feel the need for plans with an internal function specifically formulated for their purposes.

The external function is difficult to judge on the basis of this study. Due to the nature of the study no answer can be given to the question whether environmental plans create more insight among the target groups into the intended municipal environmental policy. However, we are less negative than Ringeling in his criticism of the planning system. At the municipal level target groups are involved in planning. Our findings show that open planning certainly does take place.

5.2 Reflection on the planning conception

What are the implications of the conclusion that environmental policy plans have only a limited effect on the planning conception on which the 'propagated form of planning' is based?

The finding that plans are ineffective in terms of performance results in the fact that some followers feel that attention should be paid to an extension of the decision-oriented planning approach in certain of its aspects. With these attempts not to throw out the good (the performance of plans) with the bad (ineffectiveness of plans), essential features of the decision-oriented planning approach are abandoned.

First there is the viewpoint that the concept 'use of a plan' should be interpreted more widely. We can refer to a division of the 'use of plan' concept into three elements: instrumental, conceptual and persuasive use. Our study shows that in municipal plans all three of these uses play a part. In the case of instrumental use in the sense of references to the plan, legitimizing considerations may play a part. Some respondents explicitly indicated that they did use the plan in a conceptual way. Use of the plan was particularly seen when sectoral strategic plans and memoranda were drafted in relation to the plan and when concrete points of action were realized.

In our opinion, to be able to speak of directionality of a plan, there has to be an instrumental use. After all, one condition of effectiveness is that there should be explicit justification. Therefore, as opposed to De Lange (1995), we do not want to connotate conceptual use as performance, even where it focuses on the content of policies. However, during the decision-oriented operationalization of performance the main focus is on the clarification of decisions on the basis of the plan. This requires instrumental use, and we cannot speak of effective plans if there is only conceptual use.

Secondly, we pointed out the notion that also certain matters outside the scope of the approved plan can may function as a frame of reference for decision-making (Wallagh, 1994). Certain parallels can be drawn between the performance of municipal structural plans and municipal environmental policy plans. Structural plans are also strategic, indicative plans. Quantitative and qualitative performance research was performed into the structural plans of Amsterdam in particular. The quantitative performance research showed that in structural plans few written references to the plan are found in Municipal Council decisions (Wallagh,

1988, 1994). For structural plans this led to the conclusion that we should go in search of the 'world behind the plan'. Follow-up studies investigated how the various actors (the planning subject, higher authorities and private actors) dealt with the structural plan in concrete operational decisions. The conclusion with regard to the municipal actors reads:

'The various actors are acquainted with the plan. Its main outlines are subliminally present and have an performance on behaviour. In day-to-day decision-making the plan is not used as a manual. Rather it functions as a reference book from the actor's own, often specific background. For concrete objectives the municipality often resorts to its own sectoral plans.' (Wallagh, 1994: 264).

This conclusion, which is in line with conclusions from previous performance studies, shows clear similarities as well as clear differences with conclusions from our study.

Also in our study we have, in a sense, opened up the 'world behind the plan'. We also looked at both the implementation process and the use of the plan, focusing on the use process. Our study showed that in the case municipalities where according to the respondents 'it was not permitted to be absent from an environmental policy plan meeting', knowledge of the plan, its relevance, consultation and use of the plan were highest, relatively speaking. Here we agree with the conclusion that the planning process has a major influence on the use of the plan. However, we object to the concept of 'invisible results', since this might imply that we would have to satisfy ourselves with the existence of a desk-drawer plan, because the implementation of such a plan would have yielded positive invisible results such as agreement, commitment and more intensive contacts. We called these results 'latent functions of planning', i.e. the individual value that a planning process may have. We feel that here we should be careful not to discard an essential feature of a 'plan-as-a-directional-framework'. *This essential feature is that to establish links with other decisions, a frame of reference should be used: a plan.* The plan functions as an aid to ex-post linked decision-making.

Besides, we do not feel that it is necessary to drop this essential feature of decision-oriented planning. The decision-oriented planning approach itself offers a number of solutions to the relation with the planning process. In the analysis of the history of the planning system we have seen that the inter-organizational planning suggestions which were made within the strategic choice approach were not adopted in the operationalization of the planning conception within the planning system.

One of the lessons which may be drawn from the utilization study of social-scientific research, on which the extension of the use concept was based, concerns the importance of key actors. For the performance of environmental plans the presence of such a key actor within other departments, who propagates the plan within his own department, appears to be of great importance. Concerning the inter-organizational performance of the strategic choice-approach, uncertainty appears to exist about the activities of related policy sectors (class UE). Much of this uncertainty originates from other organizations that operate within the policy field of the planning subject. Friend, Power and Hewlett use the concepts 'reticulist' and 'connective planning'. The development of a planning process depends partly on the capacity of key actors to build informal networks of personal contacts. Persons with these capacities are called 'reticulist'. Friend et al. advocate the placement of such reticulists in strategic positions as an important condition of inter-organizational planning.

In other words, a significant form of uncertainty concerns the question what other departments intend to do with the plan. Precisely in this aspect the decision-oriented planning approach appears to rival blueprint planning. Blueprint planning assumes that conformity of other departments to the plan is a matter of applying enough instruments of power. The decision-oriented planning approach sees this as an uncertainty problem.

Here we should also realize, however, that it is of great importance what the advance intentions of the planning subject were with his planning. To put it very strongly: those who pursue a final picture will fail to take into account the problems caused by the involvement of

third parties (other departments) in the planning process. Vice versa, the blueprint will also be more strongly oriented toward the department drawing up the plan. In determining the extent of target achievement we found that for the two municipalities furthest to the right on the directionality continuum, i.e. most similar to the planning form 'blueprint planning' showed a significant decline in the number of initiatives from other services, while the other municipalities did not show any significant changes.

Our empirical findings showed that the 'unity of planning and acting' is partly determined by factors such as political emphasis on the importance of the plan, and is likely to vary between departments. 'Unity of planning and acting' at the municipal level is not self-evident, but it is necessary in order to realize the directionality of plans. Work will have to be done in environmental policy on this 'unity of planning and acting' if environmental plans are to really function as a directional framework. The actors within the planning subject should pursue the creation of a joint 'plan-as-a-frame-of-reference'.

Key actors or reticulists appear of crucial importance to the use of plans in such a context. This also means a shift in the perception of uncertainty from uncertainty class UR - uncertainties with regard to choices or decisions which can be taken in future by the subject itself - to uncertainty on the activities of related policy sectors (class UE).

In the case municipalities environmental policy plans were not always drawn up as a joint frame of reference. The involvement of the different actors within the planning subject in planning varied a great deal between the case municipalities we studied. Some plans have a strong focus on the service which drafted up the plan. They function as a plan in which an opinion is given on developments which are desirable from the point of view of the environment. In environmental terms we could speak of plans where the 'leapfrogging' with other policy sectors has yet to begin. First a translation has to be made into the strategic sectoral plans of the municipality itself. Then there can be an performance at the strategic level. The question then is what we will find at the sectoral operational level of the performance.

The planning conception itself indicates an important reason why plans are insufficiently able to function as directional frameworks. Plan statements should respond explicitly to any (operational) decisions for which they intend to be a framework (Mastop, 1984: 274). This was noted also in policy practice.⁶

The previous paragraphs show that environmental plans are insufficiently able to function as directional frameworks, because the plans are too hybrid in nature, i.e. they are too much split in their intentions. They aim both to realize points of action and to play a part in the argumentation of ex-post linked decision-making. Summing up concrete actions appears to be of major importance.

In themselves, concrete actions may also result in an performance on ex-post linked decision-making. However, this is not the most interesting part of performance, and besides this part is relatively easy to accomplish. The problem is, though, that the points of action were formulated on the basis of a 'final picture' concept; realizing points of action drawn up in advance.

If there is to be an performance, statements should be formulated in such a way as to be able to influence the choice situation of the ex-post linked decision-maker. Plan statements should be aimed at directionality instead of at plan realization.

An alternative appears to be using so-called degrees of hardness. A planning statement indicates when an ex-post linked decision is so essential that the planning subject has to take the reference framework of the plan explicitly into account. This suggestion is in fact made

⁶ The Central Council for Environmental Hygiene (CRMH) states in its comment on the memorandum: "More than the sum of its parts" that 'a planning statement should be capable of having an impact' (CVRH, 1985).

within the planning system. However, in our study we found only one example of such a construction (Daselo, traffic).

A second problem in strategic environmental policy plans lies in the nature of municipal environmental policy. It is typical of environmental policy that much of environmental policy needs to be realized through other policy fields. Due to the importance of external integration we find a certain type of ex-post linked decision-making. Much of this ex-post linked decision-making is, as we said, of a strategic nature. Due to the gradual performance of initial environmental plans in ex-post linked plans and memoranda, the direct relation to operational day-to-day decision-making is limited.

Much of environmental policy is not, or hardly, developmental policy, rather it is built around limiting instruments to counteract threatening developments (Salet, 1994). Therefore, environmental objectives may clash with the overall strategic objectives of municipalities. This aspect was clearly seen in the case municipalities due to the difference between municipalities focused on economic growth (and therefore employment) (Doterplas and Rijkswaard) and the municipalities with a 'green' orientation (Daselo and Gielem).

The question is whether an environmental plan can function as a directional framework if it contains mainly 'protective' policies. If the environment is to play a real part in the developmental policy of a municipality, it should either be given a central place in city development plans, or the environmental plan should be seen as being equivalent to city development plans. In analogy to the provinces, municipalities may in future have to draft integral plans for the surrounding environment.

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