

New developments in decision making and the place of environmental assessment in the Netherlands

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Abstract

The Netherlands have a history in evaluating and experimenting with their Environmental Impact Assessment-scheme. The key-word in the newest developments is a differentiation of assessment instruments, and new forms of strategic environmental assessment will be in the core of these developments.

This paper will firstly consider the arguments for strategic assessment and it's extent brought forward in a nearly 25 year of official attention for environmental impact assessment in the Netherlands. Then it will summarise the Dutch mandatory and non-mandatory provisions for strategic environmental assessment.

The following core part of the paper will discuss the effectiveness of strategic environmental assessment in the context of decision making and the goals of the new directive. It makes use of the concept of utilisation, the question whether the assessment report was used as a frame of reference for decision making, building upon planning, implementation and evaluation literature. Results from Dutch effectiveness research are discussed.

The paper ends with a discussion on the experiences with the effectiveness of 'environmental assessment tests' on the local and regional level. These test are less rigorous in their content and procedures but have the same overall goal of strategic environmental assessment of being a tool for integrating environmental considerations in plans and programmes. Given their limitations they are very relevant for consideration of the effectiveness of environmental assessment in decision making. Finally an argument will be developed for differentiation of environmental assessment instruments depending on the decisions to be assessed and the cost-effectiveness of these instruments.

1. Introduction

At this moment the Netherlands are going into a new phase in their Environmental Impact Assessment (EIA)-framework. We are waiting for a formal national government standpoint to be called 'More effective with EIA' to be presented to parliament. Where this will lead us to is not yet clear. It will be a process that will take the Netherlands into the next century and will involve all users of the new EIA-instruments. The key-word is differentiation of assessment instruments. And new forms of strategic environmental assessment will be in the core of these developments.

The national government standpoint is a direct result of the Second advisory report on the EIA regulations contained in the Environmental management Act issued by the Environmental Management Act (EMA) Evaluation Committee dating May 1996. The Netherlands have a history in evaluating and experimenting with their EIA-scheme. Section two will present a short history of the position of strategic environmental assessment (SEA) in the Dutch EIA-regulations.

The main topic of this paper is the relation between SEA and decision making. Regardless of the approach and methodological choices in SEA one makes in the end the instrument and process of SEA should influence decision making to obtain 'a high level of protection of the environment' by taken the results of the assessment into account during the preparation and adoption of plans and programmes (Art 1, COM 96/511). The question is here what is effective SEA in relation to decision making and the goals of the new directive.

In section 3 we will shortly go into the Dutch legislative framework for SEA, stipulating what is specific in the Dutch situation. In the following sections we will to present a critical view on what the meaning of effective SEA based on the Dutch experiences and planning, evaluation and implementation literature.

2. History

Let us start with a short history of EIA in the Netherlands stressing the position of SEA. It is argued that the Dutch approach to EIA has perhaps been more deliberate and reasoned than that of any other state within the EU because of its long history of official interest (Wathern, 1988). And indeed the history of official interest dates back to 1974, so the Netherlands are going for their first 25 years jubilee of official thinking and re-thinking of the possibilities of EIA. Remarkable is that it has been a 25 year process of continuing 'learning by doing' involving experimenting, commissioned and academic research studies, formal evaluations and advises, learning from practical experiences gained in other countries and consultations with practitioners involved.

As a starting point we could take the 6th September 1974 when, following a recommendation by the OECD, the Minister of Public Health and Environment asked the 'Preliminary Central Council on Environmental Hygiene' for advice on EIA. The council was asked to answer the question whether EIA would be a useful instrument for Dutch environmental policy, how EIA should be implemented, and whether EIA should be prescribed by law. On November 1976, the Council advised that EIA would be an useful instrument in the Dutch context.

With the advice by the Council and in the subsequent phases of experimenting and testing an ongoing discussion started on the position and the possible extent of SEA in the Dutch context. In their advice the Preliminary Council stressed the desirability of EIA on policy decisions and advised to give priority to the implementation of EIA for policy decisions (VCRMH-advice, 1977, p. 12,25).

Following the Council's advice during the period 1977-1979 nine experimental EIAs were conducted. Simultaneously complementary research was performed to evaluate the practical experiences gained in other countries, especially in the USA and Canada, and these experiences studied included EIA on plans. One of the nine trial EIAs was a forward planning appraisal.

After this period of research and after a wide range of consultation a draft bill was presented to Parliament in May 1981.

From 1982 until 1987 the EIA procedures from the draft could be followed voluntary. In 22 voluntary projects was experimented with the draft act. EIA eventually became effective in the Netherlands on the first of September 1987, so after thirteen years of preparations.

In the Netherlands there is a special advisory expert EIA Commission which plays an important role in EIA procedures. In their 1991 annual report (EIA Committee, 1992) the EIA Committee elaborated on some experiences of the Commission with the application of EIA for strategic decisions. The Commission postulated that there are differences between preparing a strategic EIA-statement and a project EIA-statement, but that EIA may have an added value if these differences are recognised.

Section 21.2 subsection one of the Environmental Management Act, the former General Provisions Act for the Environment, which contains the chapter on EIA, stipulates that the Minister of Environment should report every five years to parliament on the way the Act is being applied. The independent commission for the evaluation of the Act issued in 1990 an advisory report on the operation of the EIA-scheme. In the commission's opinion EIA generally worked well.

We are not going into detail in the recommendations the commission made and the changes it lead to. The most important recommendation from the perspective of SEA was the suggestion to broaden the scope of EIA. The commission concluded that EIA as an instrument loses its sharpness when it is generally used deliberating the main lines of policy plans. But the necessity for considered decision making based on adequate information on the consequences of decisions is still there when deliberating on these main lines. The evaluation commission recommended (recommendation number 7) for policy plans with environmental considerations to compel an environmental section or paragraph and involve the Commission for EIA. This environmental paragraph would be meant for parts of policy plans considering deliberation of main policy lines and where no EIA obligation in law exists for. The Evaluation Committee gave to consider to regulate in law this environmental paragraph and the task of the EIA committee regarding the content.

For several reasons the EIA chapter in the Environmental Management Act and the EIA Decree were revised in 1993 and 1994, among them an improved compliance to the EU Directive on EIA and the implementation of the Espoo Convention. Furthermore some methodological changes were made,

especially the broadening of the concept environmental effect and modifications in the list of activities that require EIA.

The recommendation on SEA did not directly lead to changes in the regulations. But from another corner a new SEA instrument came into practice. The Netherlands were one of the first countries to give full attention to the Brundtland report. During the discussion on the governmental reaction on the Brundtland report a motion (Boers-Wijnberg) was proposed that the government would stipulate for every ministry and every policy sector how the recommendations of the Brundtland report would be given form. This led to action point A 141 in the first National Environmental Policy Plan. This well-known plan states that many policies on all level of government have important side effects on the environment and that much more attention has to be devoted to the interpolicy co-operation, which entails that policy areas like transport policy, physical planning, agricultural policy, economic structure policy, water management, building regulations, energy policy and educational policy have to be fine-tuned with the national environmental policy (States General, 1990). The implementation of action point A 141 was co-ordinated and methodological supported by the Ministry of environment, but the actually reporting was left to the responsible Ministries themselves. The goal of the examination by the ministries was to realise changes in existing policy instruments and come up with recommendations to give meaning to the Brundtland report in their specific policy areas. A second related action point, A142, stated that 'proposals with possible important consequences for the environment should be provided with information on the consequences for the environment'. A Commission Environmental Test advised on this action point, and came up with recommendations for environmental testing. Their main advice was that external integration is a development process were building in guarantees is needed for sustainable development to be taken into account by the other departments. The output should be environmental paragraphs added to proposals and plans, not a checklist how to perform a test. An important guarantee for use could be establishing a Committee to review the process of environmental testing (Advisory Committee on the Environmental Test, 1993). In 1996 the Evaluation Committee for the Environmental Management Act issued a second advisory report on EIA. In the first report mentioned above little could be said about the effects and effectiveness of the EIA-scheme. The main purpose of the second advice was therefore to provide insight into the effectiveness of the scheme and into its effects. When we will be discussing the relation between SEA and decision making in section 5 we will draw from the range of commissioned research projects that supported this advice. The Evaluation Committee concluded that this research shows that the EIA scheme is a reasonably effective instrument and that this satisfactory result means that there is no real need for major changes in the law.

3. The Dutch framework for SEA

In the Dutch context there are several SEA instruments that serve the overall goal of strategic assessment. Two formal SEA-instruments were already mentioned in the short history above. Firstly the SEA-procedure obligator under the Environmental Protection Act in combination with the EIA Decree which is required for a number of spatial and sectoral plans and programmes. Sectors involve can be agriculture, industry, energy, transport/infrastructure, tourism, water resources, waste management and land use planning. Responsibility for the SEA lies with the lead agency for the policy, plan or programme. Since 1987 more than 30 SEAs have been carried out both on the national and the regional level, for a large part for waste management plans.

In the Dutch system SEA is related to strategic policy decisions or strategic location decisions as part of the plan. An example of policy decisions would be the choice of method for waste management (prevention, reuse, incineration or landfilling). Not the spatial plans need the SEA but the specific activity contained in the plan. Activities for which spatial plans are marked as EIA-obligatory decisions are large scale new housing projects, industrial areas and recreational facilities. Further EIAs can be requested for spatial plans for infrastructure projects like road-, rail- and water channels and major pipelines. The gravity of the environmental effects of large scale projects depends on the size, the location and the way of constructing and using these projects. For the size the 1994 EIA Decree gives thresholds. If a new development exceeds this thresholds an EIA is needed. The EIA

should be linked to the spatial plan that in the first instance foresees the construction of the project. The principal than goes that if a specific development has been environmentally assessed the EIA-obligation is fulfilled. So if the location choice of new housing development is assessed within a procedure for the decision making on a provincial spatial plan it will not be assessed again on a local level. We will go deeper into this choice of the right level of assessment in section 5.

Secondly the 'environmental test' on the national level required for all Cabinet Decisions with significant environmental impacts. The goals of this test is to give environmental and sustainability considerations a full place in national policy making.

The environmental test is meant to be complementary to the EIA-scheme. The legal basis is a Cabinet Directive and the responsibility for performing the test lies with the lead authority of the tested law or plan. The output of the test is an environmental section or paragraph contained in the exemplification of the law or in the plan. Until now experiences are mainly made with the strategic assessment of regulation, but the test is also meant in the future to be used more for environmental paragraphs in plans and programmes. Thirdly the Dutch Ministry of Foreign Affairs uses SEA where appropriate in its planning of development assistance.

Other instruments have an informal status or are not really SEA-instruments. Spatial planning law contains several obligations for the assessment of specific environmental aspects (e.g. mobility, noise, soil contamination) in plans. Further municipalities introduce environmental section in land-use plans. More and more provinces and municipalities have introduced environmental tests more or less comparable with the environmental test on the national level. In section 6 we will go into the experiences with these more informal instruments.

4. SEA and decision making

In general there is a difference between the need for environmental assessment of plans and the need for SEA as a formal instrument. Sustainable development asks for an integration of environmental policy objectives into other policy areas. This was recognised at the Rio Conference in 1992, where sustainable development was widely agreed upon, and led to chapter 8 of Agenda 21 with the overall goal to integrate socio-economic and environmental concerns in the decision-making process with a broad range of public participation. One of the four key objectives of chapter 8 concerns the development and use of specific policy-making tools and instruments that help to integrate environment in decision-making, including environmental impact assessment. According to the CSD¹ among the decision-making tools that have been particularly widely developed and used is environmental impact assessment. SEA could be a continuous decision-making tool for integrating environmental effects into plans and policies, aiming at the identification of the cumulative consequences of policies, governmental programmes and plans with impact on the environment, introducing sustainability principles into decision-making. It can also provide a mechanism for public participation in discussions relevant to sustainability at a strategic level.

In spatial planning SEA is linked with spatial activities that have potential environmental effects. There is a difference between an SEA of a plan, in which case a procedure with separate documentation is presumed, or the integration of SEA in the plan making process. The second approach could lead to minimal disruption of existing decision making procedures but holds the danger that the SEA is not or not fully undertaken in practice by lack of a separate produced document for justification (Wood, 1988).

The idea that an EIA system should apply to all activities likely to have significant environmental impacts, irrespective of their type, is quite old (e.g. Lee and Wood, 1978). Still the vast majority of EIA undertaken in countries that have legal provisions for SEA for the approval of policies, plans and programmes relate to projects. For instance the Dutch experience with over thirty formal SEA-procedures is just a very small part of the total number of spatial plans, considering for example the around 1700 local land-use plans are made every year.

Besides all advantages given to SEA there are also major well known objections against SEA. In the first place there are political objections. Especially against the restraint of the competence of responsible administrators in decision making. Further politically there can be the practically

dilemma of confidentiality of strategic decisions versus the need for public participation in SEA-procedures.

Methodological two objections are often made. Firstly the problem is stated that on a strategic decisions level a wide variety of activities exist which complicates SEA. Secondly the decisions were a SEA are linked with are not primarily concerned with concrete activities, but are often abstract. This makes it more difficult to predict quantitative environmental effects on a strategic level, especially if the technical details of design and construction of concrete alternatives are unknown.

A less heard argument is that in citizens participation the level of clearness of alternatives influence the options and willingness of citizens to participate (Coenen, Huiteima and O'Toole, 1998).

Some of these objections are well know from the general discussion about the possibilities of EIA. Part of the methodological arguments against SEA can be refuted by pointing on the growing knowledge and experiences with SEA. But considering objections there are still a very good reason to very carefully consider the effectiveness of SEAs.

What kind of decision making are we talking about? The SEA Directive refers to town and country planning plans and programmes which are part of the town and country planning decision-making process for the purpose of establishing the framework for subsequent development consents, and which contain provisions on the nature, size, location or operating conditions of projects (art. ; So the main activities to be assessed in the context of the directive will be strategic decisions in consecutive stages of decision making linked with subsequent development consents.

In spatial planning there is a problem of the right scale to perform a SEA. In the SEA Directive it is stated that the detail of the information included in the environmental statement depends on the stage in the decision making process and the assessment on other levels in this process (Art. 5 Section 2 Com 95/511). Spatial planning systems contain plans on different governmental levels ranging form very strategic to very detailed land-allocation. In the Dutch context for instance we would find:

- National Spatial Planning Key Decisions
- Provincial Spatial Plan
- Detailed Provincial Spatial Plan
- Regional (cross-municipal) structure Plan
- Municipal Structure Plan
- Municipal Land-use Plan

As explained before on the basis of the EIA-scheme an EIA in the Netherlands will only be undertaken once in consecutive decision making. If the location choice of new housing development is assessed within a procedure for the decision making on a provincial spatial plan it will not be assessed again on a local level. Some regret this, because if a SEA on the provincial plan is lacking this means that the starting point for the project EIA could be a less sensible location. But if there is a SEA on location alternatives there is no room left for considering construction alternatives with an EIA in the project itself. The law expects that the different governmental levels make a choice for the right level of EIA on the basis of a deliberated and balanced decision making.

To be linked with a SEA plans should satisfy two criteria:

- are there crucial decisions in the plan, which means decisions after which substantial alternatives are out of the question;
- is it possible to predict environmental effects.

Practice however shows that not always a balanced and rational decision is made were the SEA should be linked. In practice the EIA is often undertaken by the government level who for one or another reasons wants to speed up the process or feels for other reasons the most need to reach a certain decision. Dutch provinces have the possibility to avoid a SEA of the location by keeping the new development so global that the EIA-obligation doesn't hold. A further problem with provincial spatial plans is that they are open for possible future modifications when global developments are concretised. Municipalities can avoid SEA on a structure plan level if they change the plan in an informal plan because municipal structure plans are not obliged by law. Which is a pre-condition for linking EIA with spatial plans.

The discussion on the right level for SEA or EIA is nearly as old as EIA itself in the Netherlands. It structures itself around the dilemmas between enough freedom of choice of alternatives and enough

reliable information on future environmental effects. (Bouwer 1995). For instance in the case of the Fourth National Spatial Report Extra (VINEX) level after discussion in parliament it was decided not to perform an SEA although the VINEX contained rather concrete choices on housing- and industrial area location.

5. Effectiveness of SEA

We are getting to the important question of effective SEA's related to decision making. In a conventional approach to the evaluation of planning, both the contents of the plan, the effects of planning and the planning process itself can be the subject of evaluation (Coenen, 1996).

What does effective SEA mean? In general an instrument is effective as it contributes to its goal. The objective of the SEA Directive is to provide for a high level of protection of the environment. Goal achievement in such a substantive sense would mean that SEA would lead to environmental impacts avoided or mitigated or proposals altered in a more environmentally friendly direction. Because it is very difficult to establish a chain of causes and effects between the SEA-statement and procedure and this kind of effects it is very difficult to judge SEA effectiveness in such a substantive way. Goal attainment is something else than effectiveness, goal attainment can be due to rival explanations rather than or alongside the instrument. So if the overall goal of a higher level of environmental protection through spatial planning is reached it is very difficult to attribute these effects to SEA.

The procedural goal of SEA in the European context is that the results of an environmental assessment of certain plans and programmes are taken into account during the preparation and adoption of such plans and programmes (Article 1, COM/96/0511). In general 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. So if one formulates enabling conditions of sound practice or established principles of operational excellence (Saldler and Verheem, 1996) one presumes that good efforts will lead to good effects.

We define an effective SEA here as a SEA-statement that is taken into account in the decision making. This still leaves the options open that the SEA is linked during the plan making process or after it has been prepared.

We will illustrate the problem of effectiveness with Dutch effectiveness research. The main goal of the Dutch EIA scheme is formulated as taking the environment 'fully' into account in decision making and given the environment a full place. With a fully is meant on the same level as classical interest as economics, housing, employment, etc. The end goal of EIA is a clean environment and streamlining decisions is considered to be a subgoal. The goals 'taking the environment fully into account' has to be realised both through environmental impact assessment as a process as through a systematic and methodical reporting, the EIA-statement.

Judging the systematically and methodical reporting is no easy but a feasible job for which criteria can be developed. Judging the influence on decision making is much more difficult for the reasons stated above.

The EIA-Committee observed in her 1989 annual report that 'only in a limited number of cases a (strategic) environmental assessment contributed in a notable way to the decision making' (Commissie m.e.r., 1990). In some of the individual cases reported the conclusions were more positive (zie Sadler en Verheem, 1996, Tonk and Verheem, 1998, Buitenkamp and Morel, 1993)

One of the studies for the 1996 evaluation explicitly addresses the impact of the EIA-scheme, including the impact of the environmental impact assessment statement on decision making (Ten Heuvelhof and Nauta, 1996). The study took a stratified sample from the population of EIAs for which a decision was taken by the competent authority to draw statistically significant conclusions for different categories of EIA. Besides licence EIAs categories were transport infrastructure EIAs, routes of transport and location of dikes, spatial planning EIAs regarding concrete construction of housing, industrial and recreational facilities and the fourth category was strategic EIAs. The strategic EIAs concern what SEAs is meant to do, SEA of plans on a higher abstraction level of decisions.

The impact analyses was based on interviews with several actors involved. The study distinguishes three forms of effect: direct, knock-on and positive net effects. A *direct effect* occurs when an EIA contributes to a change in the actions of an actor actively involved in the decision-making for which the EIA was carried out, or the way in which that actor thinks about the problem. For all categories together the researchers found that 79% have such a direct impact and 21% do not. A so-called *knock-on effect* occurs when an EIA has an effect in other processes and situations than those for which the EIA was carried out. So it is a kind of indirect effect. For the whole sample knock-on effects occur in 71% of the cases and not in the other 29%.

The third category called *positive net effect* occurs if the actors consider that the direct effects outweigh the costs incurred, measured in terms of the time spent and the delay undergone by the project. For a sample of 98 cases the researchers found in 29 cases no positive net effect, in further 29 cases a slight positive net effect, in 26 cases it was moderate and in 14 cases considerable. The study also tried to explain why these effects were such as they were. A statistical analysis of the data indicated which play a role in explaining the magnitude of the positive net effect are the time when the process started and the presentation of the project.

The study was heavily criticised on the methodological ground that it measure not the real knock on effect but something as the perceived knock on effects as remembered by the respondents. An alternative approach was used by De Valk (1997) who tried to answer the question 'to what degree and in what way do EIA Statements affect the decisions at issue' by a systematic content analysis of texts that form the basis of the decision. On the basis of two samples, decisions with and without EIA-statements, he shows that that the environmental issue in decisions that are made on the basis of an EIA is significantly more important than the environmental issue in decisions that lack such an EIA-statement. But both approaches, asking actors or analysing argumentation in decision-making documents, have their limitation for effectiveness research in really showing the influence of EIA on decision making.

6. An alternative perspective on effectiveness of SEA

Here we will offer another perspective on effectiveness taken from planning, evaluation and implementation literature. The so-called 'decision-oriented' planning concept (Faludi, 1987) 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. Faludi has argued that different criteria should be used for these strategic plans that form guiding frameworks and blue-print plans that have to be implemented according to the blueprint. A conformance view on evaluation means the measuring of outcomes to intentions, which fits very well with blue print plans. The alternative to the conformance view is the 'performance view' (Barrett & Fudge, 1981). A strategic plan gives guidance. If a strategic plan is abandoned, this does not mean that it did not work. We have to look at the usefulness of the plan to the decision-makers.

There are similarities between SEA-statements and plans as guiding frameworks. An SEA-statement must found arguments for decision making. Performance needs two conditions:

- a necessary condition to take SEA-statement into account: knowledge of the content of the SEA-statement

- a sufficient condition: the SEA-statement has to be used in decision making if only to counter the environmental arguments. It is not necessary that the most environmental friendly alternative is chosen. Use does not mean in accordance with the most friendly alternative.

One could argue that between knowing and using more steps are needed. If the planning subject is familiar with the SEA-statement, considers the SEA-statement relevant, consults the SEA-statement and uses the SEA-statement explicitly in justifying his decision we could talk about an effective SEA. (Coenen, 1996). This means that an SEA-statement or procedure is not effective because it follows the principles of good practice but because it leads to use in decision making. Use does not mean that it altered alternatives or environmental effects but that environmental considerations are taken into account. Justification of this use is then the key word. Contrary to the two approaches explained in the

last section, asking actors or analysing argumentation in decision-making documents, this approach to effectiveness really shows the influence of EIA on decision making.

7. Differentiating strategic assessment instruments

It will be clear to whatever the arguments for a strategic assessment of plans and programmes there are it will be an almost impossible task to perform a formal strategic assessment for every strategic spatial decision. The Directive offers an escape from SEA for small areas at local level (Art 4 section 4 Com 96/0511) and makes the level of detail depended upon the significance of effects, the level of detail in the plan or programme, its stage in the decision making process and the assessment on different levels in the decision process (Article 5, section 2 Com 96/0511).

In the Netherlands experiences have already been gathered with assessment instruments relying on less stringent principles of documentation, procedure and the involvement of the public like the environmental test on the national level introduced in section 3. This instrument was introduced instead of a more formal SEA to:

- avoid delay of decision making;
- to easier gear the output, an environmental paragraph, to the significance of the issues raised in the policy proposal;
- provide for flexible, efficient integration with other processes through minimum procedural and content requirements.

These procedures have a very limited openness and often no public participation. Decisions are justified afterwards in separate paragraphs or sections of the plan. We still consider them as examples of SEA here if they fulfil two important conditions. Firstly there is a distinction between an assessment report, if only as an separate paragraph or section, and secondly it should be linked with some form of decision making procedure, which needs not to be formal law can also be internal provincial or municipal regulation (compare Lee and Hughes, 1995).

Arguments given in practice to develop these complementary procedures is:

- if the decision making procedure leaves very limited time or cost-effectiveness is a problem;
- if an assessment is already undertaken on a higher decisions level and the assessment on a lower decision is just complementary in a sense that
- when the ambition level of the assessment is higher than taking environmental effects in consideration. For instance a test on sustainability, how difficult it may be in practice.

In the rest of these section we will discuss shortly the choices and limitations of these alternative assessment instruments. Two forms of environmental tests are relevant here. Firstly the environmental paragraphs contained in municipal land-use plans. Municipalities are obliged by law to report in the local land-use plans about acoustic and soil contamination and mobility aspects. But more and more municipal land-use plans contain 'green paragraphs' which deal with other environmental aspects like ecological effects of spatial developments. Research shows that the use of these 'green paragraphs' depends on the restrictions in Dutch law which says that spatial plans are meant for 'good' physical environment and not to conduct environmental policy. Secondly in practice it is very difficult to enforce the statements in these paragraphs because of this unclear status.

The second type of environmental test look like the environmental test on the national level. experiences with less formal procedure called sustainability or environmental tests to be used on different levels of decision making. These methods are based on the idea that policy-makers should be forced to justify how they took the environment into account. The outcome of such a test could be ranging from a sustainability score to an environmental paragraph added to a proposal. Especially interesting are environmental tests that work towards 'environmental paragraphs' as output of these tests, were the arguments of the decision should be elaborated on instead of some sort of environmental score on alternatives.

What can we learn form these 'environmental tests' on a local level

- experiences show that in municipal practice one does not always think in terms of alternative proposals, except for go or not go;

- if the environmental assessment test has to be internally prepared knowledge of environmental effects and relevant environmental policies is a real problem;
- within the competent authority the test can be best performed by the tested policy field itself, the lead department, which means producing an environmental paragraph together with the plan or proposal. The environmental department does not have the necessary helicopter view to add environmental paragraphs to all proposals, and they are somehow considered as an opponent in municipal policy;
- experiences in municipalities show the phenomenon of 'political erosion' of the tests. The political back up of the test was very essential. If some time after introducing the test the general trend is that (a) an environmental paragraph is not taken into account, or (b) there are no sanctions if environmental paragraphs are not added, there will be erosion. After a while the test are not longer be used, in a sense that departments stop adding environmental paragraphs;
- the fear that other interests than the environment are left out in decision making as a consequence of the test leads to introducing complementary tests like a test on the economic effects of environmental regulations and policies;
- experiences show that guarantees can be build in that the test are actual used, and that there is room for outside involvement.

8. Conclusion

Based on the Dutch framework for SEA we elaborated on the effectiveness of SEA in relation with spatial decision making. A major problem in SEA of spatial plans is finding the right level for the main SEA-efforts, an important condition for an effective SEA. Because of the difficulties of defining effectiveness of SEA from both a substantive and a procedural side, an alternative approach to effectiveness could be a solution which takes the perspective of use and justification as a key element. Dutch experiences show that effectiveness research should be more than going out and asking actors if the SEA-statement and procedure were effective at the one side or studying the formal arguments used in decision documents at the other side. Further there are good arguments to look more serious into alternative, less rigorous SEA-instruments complementary to more formal SEA

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Note

¹ The Commission on Sustainable Development (CSD, 1997) reviewed the progress made in the implementations set out in chapter 8 of Agenda 21, which addresses the integration of environment in decision-making. Integrative decision-making tools are economic and policy instruments that aid the process of integrating environment and development in decision-making (CSD, 1997). These tools help decision makers achieve and measure progress towards sustainable development goals and targets.