

**ENV4-CT 96 - 0268**

**NEW INSTRUMENTS FOR SUSTAINABILITY -  
THE NEW CONTRIBUTION OF VOLUNTARY  
AGREEMENTS TO ENVIRONMENTAL POLICY (NIS)**

**SUMMARY FINAL REPORT  
APRIL 98**

**Key words:** Environmental agreements, Evaluation methodology, Environmental effectiveness, Cost-effectiveness, Public participation, Social acceptability

**RESEARCH TEAM**

**Coordinators:**

**Gerhard Roller and Betty Gebers**

Öko-Institut e.V.  
Bunsenstr. 14  
D-64293 Darmstadt, Germany  
Tel.: +49 6151 819115,  
Fax: +49 6151 819133  
E-mail: gebers@oeko.de

**Partners:**

**Ralph Hallo and Jan Willem Biekart**

Stichting Natuur en Milieu  
Donkerstraat 17, 3500 KB Utrecht, The  
Netherlands  
Tel.: +31 30 233 13 28,  
Fax: +31 30 233 13 11  
E-mail: snm@antenna.nl

**James Cameron**

Foundation for International Environmental Law  
and Development (FIELD)  
6-47 Russel Square  
London WC1B 4JP, UK  
Tel.: +44 171 637 7950,  
Fax: +44 171 637 79 51

**Nicolas de Sadeleer**

Centre d'étude du droit de l'environnement  
(CEDRE)  
Boulevard du Jardin botanique, 43  
1000 Brussels, Belgium,  
Tel.: +32-2-211 7811  
Fax: +32-2 211-7997

**Sub-contractors:**

**Sanford Lewis**

The Good Neighbour Project for Sustainable  
Industries  
PO Box 79225  
Waverly, MA 02179, USA;  
Tel.: +1-617-489-3686  
Fax: +1-617-489-2482,  
E-mail: sanlewis@igc.apc.org

**Jerzy Jendroska**

Environmental Law Association, Polish Academy  
of Sciences  
ul. Kuznica 46/47  
50-138 Wroclaw, Poland  
Tel.: +48 71 44 47 47,  
Fax: +48 71 44 47 47

**Stefano Nespor**

Via Cellini 1  
20129 Milan, Italy  
Tel.: +39-2-551-80508, Fax: +39-2-551-80246  
E-mail: nespor@icil64.cilea.it

**Christian Ege**

Centre for Alternative Social Analysis (CASA)  
Linnésgade 25, 3  
1361 Copenhagen K, Denmark  
Tel.: +45 33 32 05 55, Fax: +45 33 33 05 54

**Kilian Bizer**

Martinstraße 64  
64285 Darmstadt, Germany  
Tel.: +49 6151 46519,  
Fax: +49 6151 46519  
E-mail: bizer@fbsuk.fh-darmstadt.de

## I. OBJECTIVES

The main objective of the research was to identify and evaluate the contribution of agreements to environmental policy, in particular to the development of practical options in the transition towards sustainability. An additional objective was to develop options for combining environmental agreements with other instruments of environmental policy.

A general objective of the research was to contribute to a rational and transparent selection of environmental policy tools. Ideally, an environmental policy instrument is selected because it is best suited to achieving a certain environmental policy objective. The potential of „new tools“, such as economic instruments or environmental agreements, is generally measured against the yardstick of conventional „command and control“ approaches. These new tools have been argued to be capable of giving a higher level of environmental protection or effectiveness. Whether this assumption is correct as a rule or only in specific areas where environmental agreements are particularly suited to realising environmental objectives was determined in the course of the research.

Agreements are also said to have the advantage of reaching environmental policy goals with a minimum of financial resources because companies can choose the least cost prevention measures. In order to examine cost-effectiveness it was generally asked whether environmental agreements can bring about minimum cost solutions and under what conditions this might be the case.

The models of shared responsibility, co-operation and participation of relevant players argue that using the innovative potential and detailed knowledge of different players can lead to adequate, rational solutions of environmental problems. Co-operation between actors also ensures that every party contributes within its capacity to the success of the measure agreed upon. Negotiations for environmental agreements have been emphasised as offering an opportunity to get a number of relevant players involved. It was thus examined whether environmental agreements contribute to the spirit of shared responsibility and co-operation.

It has been argued that social acceptance can be the 'glue' that bonds an agreement and that effectiveness depends on wide support from stakeholders, i.e. public authorities, industry and the general public. Social acceptance is essential for an agreement to succeed. In this research project insight was gained concerning acceptance of environmental agreements and the impact of this factor.

## II. METHODOLOGY

The research was based on four research hypotheses which follow arguments frequently used in environmental policy debates about the possible role of environmental agreements as policy instruments. The research examined whether these arguments can be confirmed by practical experience with environmental agreements.

Overview of research hypotheses:

- *Environmental agreements lead to a higher level of environmental protection than other instruments.*
- *Environmental agreements are more cost effective than other environmental protection instruments*
- *The participation of all social actors is essential for the long term success of environmental agreements.*
- *A high acceptance of environmental agreements as valid environmental policy instruments by all social actors is essential for their success*

As a first step the term "environmental agreement" was defined to specify the scope of the research. In the framework of the research the term was understood as:

"An agreement or an action of self-regulation which is voluntary in character, that involves stakeholders of which at least one is the state, that is either a substitute of or that is a device for implementing or going beyond environmental law and policy, and that is aimed at sustainable development."

An agreement or an action of self-regulation: An environmental agreement may be either a contract between at least two parties (sometimes called a covenant) or a self-commitment by industry which leads the government to offer some kind of relief in return for the industry's commitment.

Voluntary in character: It is a specific element of environmental agreements that they are made voluntarily, which means that the parties have the choice to enter into an agreement. There is no legal obligation to do so.

Involving different stakeholders, of which at least one is the state: It is a vital element of an environmental agreement that it involves stakeholders with different interests. Environmental agreements that are recognised as an instrument of public environmental policy must somehow involve the state. Other parties such as NGOs or citizen groups may also participate.

At a national, regional, or local level: Environmental agreements are usually recognised as an instrument of national environmental policy. However, they may also be made at a regional or local level, for instance between a single operator and local authorities (neighbourhood agreement).

Aim at sustainable development: An environmental agreement must address the ecological dimension of sustainability. It should aim to contribute either to a reduced use of resources or a reduced release of pollutants. (The latter includes restoration or re-cultivation of polluted sites).

Connection with environmental law and policy: Basically an environmental agreement has one of three possible purposes: (1) It can be a substitute for an environmental law, (2) it can be a device for implementing environmental law or (3) it can be a device for going beyond existing policy and legislation.

The research was conducted within the framework of the European Union's (EU) policy towards environmental agreements. Thus, one aim of this research was to analyse environmental agreements in the context of European Community (EC) law. An EC Report was prepared that considers EC legal issues relevant to the use of environmental agreements as a tool to implement EC legislation, specifically EC Directives. It also analysed the trade and competition law implications of environmental agreements. One particular focus of the EC Report was to examine some of the recommendations and views presented by the Commission in its Communication on Environmental Agreements (COM 96 (561)).

In order to understand the concrete situation in the use of environmental agreements and their integration into national environmental policy, nine countries were studied: Belgium, Denmark, France, Germany, Italy, The Netherlands, the United Kingdom, Poland, and the United States. These country reports describe and analyse the current state of environmental agreements in the selected countries, their significance in national environmental policy, the fields of application, implementation obstacles, and current endeavours to promote them as an environmental policy instrument.

In order to assess the case studies, evaluation criteria were developed. These evaluation criteria were derived from the research hypotheses. The results of the case studies were then assessed, analysed, and finally used to determine if the results of the case studies support the research hypotheses.

On the basis of eight case studies, the research evaluated the success of environmental agreements. An environmental agreement can be regarded as successful if it reaches its own environmental targets. However, this success has to be assessed in the context of other possibilities to reach similar or even better results and in relation to a hypothetical situation without the agreement. Factors leading to success or failure are addressed and investigated in detail.

For an improved understanding of the processes behind (non-)successful environmental agreements, a number of parameters were identified which seem to positively influence the environmental effectiveness of agreements.

Finally conclusions were drawn for the future use, possible fields of application, and the design of environmental agreements as instruments of environmental policy.

### **III. MAIN RESULTS**

#### **III.1 Use of environmental agreements in the examined countries**

The reports on the use of environmental agreements in seven EU Member States, Poland and the US have shown that the significance of this instrument and its function in national environmental policies differs considerably.

The first experiences with environmental agreements were made in France and Germany, and date back to the early seventies. In Germany it was not before the mid-eighties that this instrument gained any relevance for

environmental policy, but was then promoted intensively by both industry and policy makers. Meanwhile, it is an almost conventional tool quite often announced by industry branches to avoid new legislative measures. In France the process for the conclusion of agreements was slowed down due to the jurisdiction of the *Conseil d'Etat* but the instrument has been revived slowly in the nineties. In the other countries examined negotiating activities started much later. In Belgium, Denmark, Italy and in The Netherlands, environmental agreements have been used since the late eighties. In Denmark agreements have been negotiated with a similar intention to that observed in Germany, that is the intention of actors from policy and industry to de-regulate by using non-legal instruments. However, agreements do not appear to play an important role in Danish environmental policy because environmental authorities have some reservations on their effectiveness and efficiency and want to evaluate the success of existing agreements before negotiating new ones.

In The Netherlands, environmental agreements acquired considerable weight through the National Environmental Policy Plan of 1989 and its 1990 successor which provided the basis for integrating agreements strategically into domestic environmental policy. In particular, agreements on energy efficiency and on emission reduction targets of specific industrial sectors are a common feature of Dutch environmental policy. In Belgium and in Italy, environmental agreements are not very popular. This also holds true for the United Kingdom where environmental agreements are a relatively new phenomenon.

The policy context in the two examined non-Member States of Europe shows other models and motivations for negotiating environmental agreements. In Poland agreements have not been concluded between government and industry associations but, instead, between authorities and single enterprises in order to reduce their emissions of pollutants. This has to be seen in the context of the practical need to reach compliance with new standards in the fastest possible way. In the US, the nineties have been a time of experimentation with environmental agreements and consensus-based processes, initiated both by the government and non-governmental parties. The driving motives for choosing "environmental agreements" are nowadays, like in many European countries, to be seen in the search for alternatives to command and control measures and for more efficient policy tools.

### **III.2 Fields of application**

A comparative look at the inventory of environmental agreements reveals a preference for specific policy sectors (see Table 3.1 and Figure 3.1). In all examined Member States of the European Union the instrument has been used in the waste management sector. The survey of publicly known agreements showed that specifically The Netherlands (17 agreements), Germany (16 agreements), France (12 agreements), and Italy (13 agreements) have turned to environmental agreements in order to solve waste problems.

Another environmental policy field in which almost all countries have used agreements is climate protection, i.e. the reduction of energy consumption. The greatest number of agreements can again be found in The Netherlands (31) and in Germany (25), but also France (6), the United Kingdom (5), Belgium (1) and Italy (1) have used the instrument to implement their climate change policies.

The prevention of water pollution is also an area where environmental agreements are used. However, the total number of agreements in this sector is much lower and not all countries examined used this instrument to improve water quality. Germany, The Netherlands and Denmark make use of this instrument in respect of water pollution more than other countries. A comparatively smaller number of agreements have also been negotiated to protect human health by preventing air pollution, water pollution and ozone depletion. Only a small number of agreements have been concluded that relate to soil protection.

These preferences do not necessarily lead to the conclusion that the instrument is most suitable in these sectors. It might also reflect a preference for certain topics in environmental policy in general or specific interests of the economic players within the sector. Forty agreements in all examined countries apart from Belgium and Denmark have addressed at least two environmental areas at the same time, which is a considerable number, e.g. air and water pollution. This demonstrates that in many countries the agreement tool is not used only to solve a single environmental problem but also addresses multi-issue questions in different environmental fields. In particular, in The Netherlands and in the USA such comprehensive agreements are quite common.

Table 3.1 Focus of targets of all listed environmental agreements

countries	waste	water	climate	health	air	soil	ozone	multi-issue	others
Belgium	7	3	-	1	2	-	3	3	-
Denmark	9	4	1	2	4	1	3	-	-
France	12	2	6	1	1	2	5	2	-
Germany	16	10	25	17	6	2	9	3	-
Italy	13	1	1	-	5	-	-	5	-
Netherlands	17	7	31	7	6	3	1	9	2
UK	5	-	5	-	-	-	-	-	-
Poland	-	2	-	1	3	-	-	5	-
USA	1	1	8	1	3	-	-	13	2
total	80	30	77	30	30	8	21	40	4

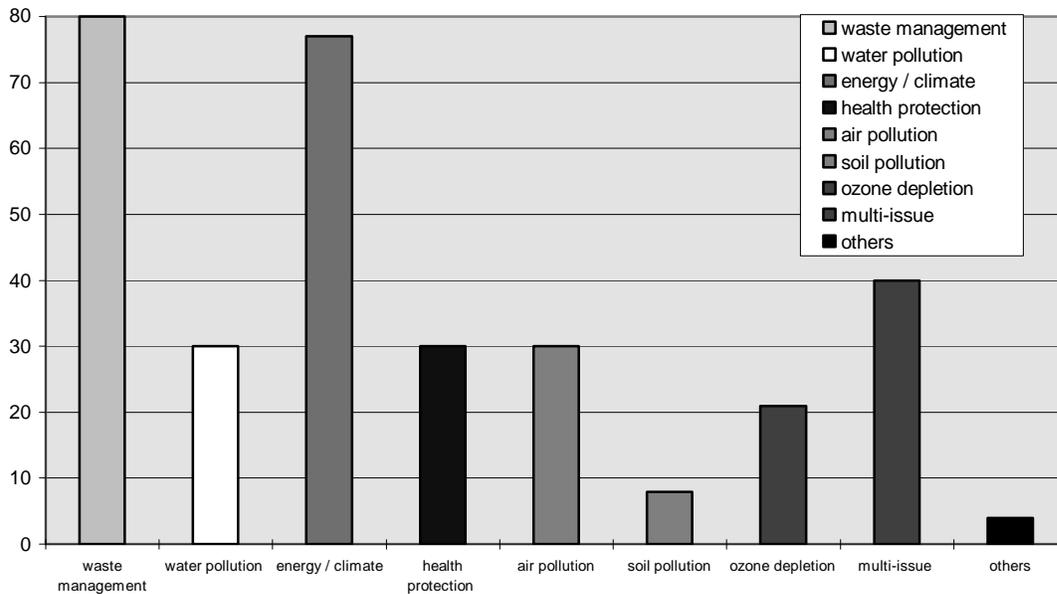


Figure 3.1 Focus of targets of all listed environmental agreements in absolute figures

**Process and product related agreements**

The survey showed that some countries seem to favour process related agreements while other countries concentrate more on product related agreements. In the Netherlands and France most agreements aim on the reduction of emissions in definite production processes. On the other side, in Belgium, Germany and the UK most agreements focus on single products. These agreements usually aim at the phase out of single hazardous substances in products or constitute safety measure or marking obligations for certain products. Additionally most of the EU Member States examined have some experience with agreements that contain a combination of product, production and other process related targets and obligations. In Poland all agreements contain targets and obligations exclusively related to production processes. In the US the majority of agreements also focuses on production processes, although agreements that fix targets with regard to certain products or classified also exist (see Table 3.2 and Figure 3.2).

Table 3.2 Target classification of environmental agreements in absolute figures

country/ target group	product related	production processes	other processes	combination
Belgium	7	3	5	4
Denmark	6	6	12	-
France	6	15	5	5
Germany	41	24	17	6
Italy	2	2	15	6
Netherlands	18	48	12	5
United Kingdom	6	-	4	-
Poland	-	11	-	-
USA	5	21	-	3
total	91	130	70	29

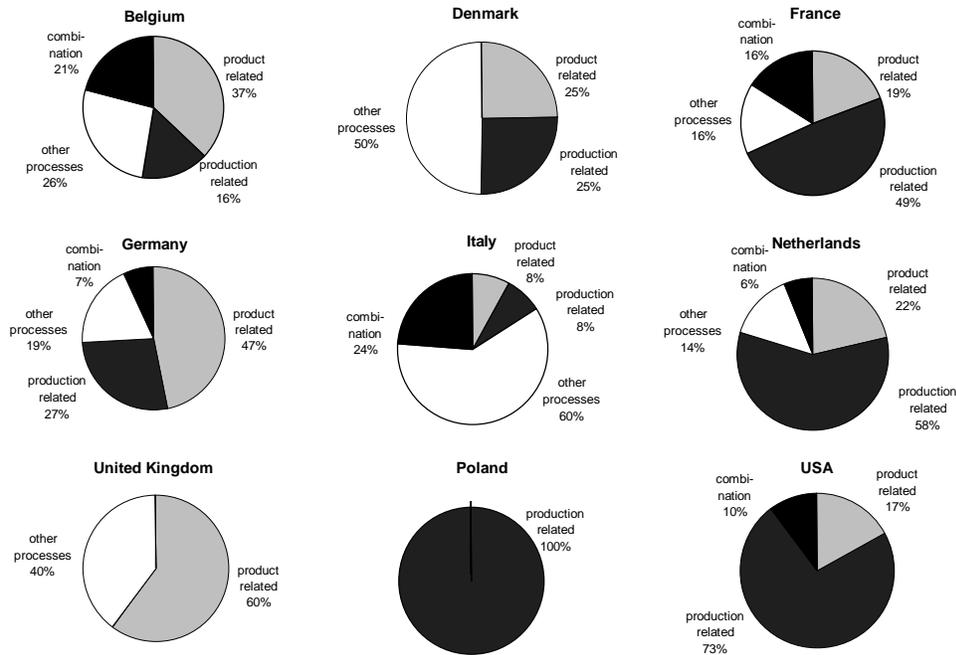


Figure 3.2

Target classification of environmental agreements in relative figures

### III.3 LEGAL CHARACTER

An important element is the legal status of the agreements. Apart from The Netherlands where 90% of environmental agreements have a legally binding status, in the other examined EU Member States almost all agreements consist only of a moral obligation on the actors to abide by their commitments (see Table 3.3 and Figure 3.3.). These kinds of agreements are thus not legally enforceable. In the countries that have attempted to establish a legal framework for environmental agreements - Denmark and Belgium - it can be observed that this framework has not been applied yet. This leads to the conclusion that a certain degree of informality is necessary to conclude agreements.

Table 3.3 Legal status of environmental agreements in absolute figures

country / status	binding	non-binding	unknown
Belgium	4	11	4
Denmark	3,5	17,5	3
France	6	18	7
Germany	2	85	1
Italy	-	25	-
Netherlands	75	8	-
United Kingdom	-	8	2
Poland	7	2	2
USA	11	14	4
total	108,5	188,5	23

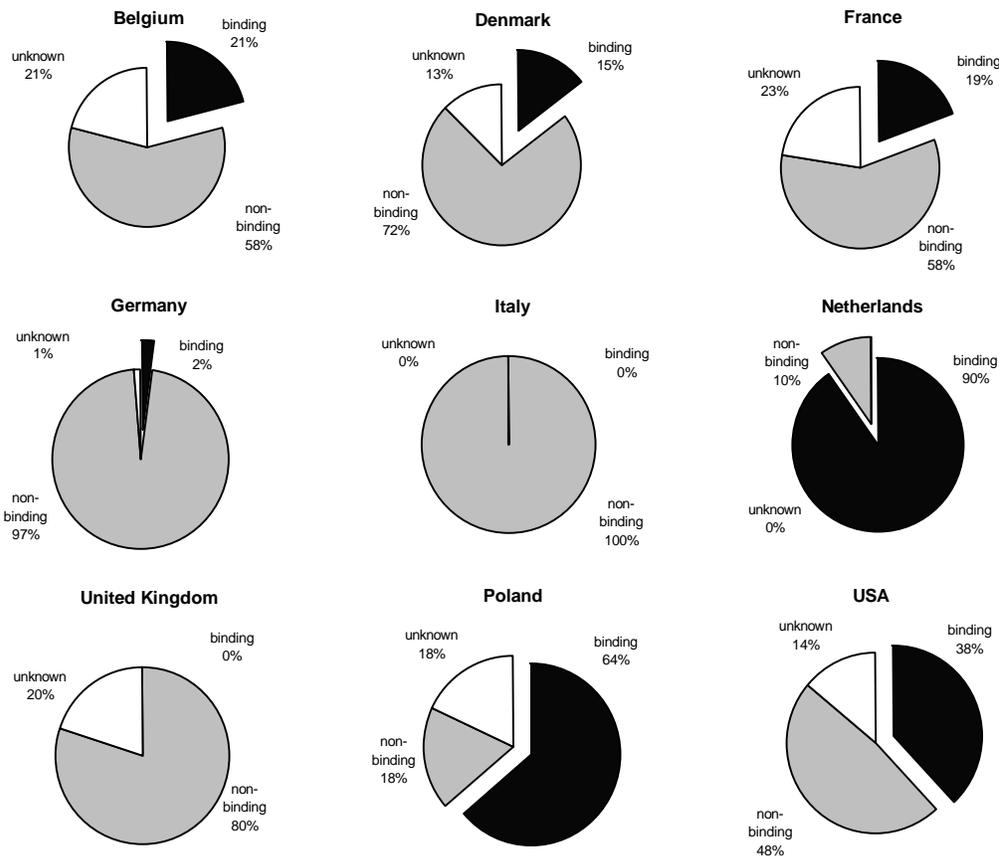


Figure 3.3 Share of legally binding environmental agreements in relative figures

**III.4 RESULTS OF THE EC REPORT**

The EC Report examined whether environmental agreements could be used by the Member States of the European Union to implement EC legislation. Pursuant to the Treaty of Rome, as amended, a Member State may choose the form and methods to implement a Directive. As EC law does not expressly require that transposition takes place through legislative measures, the admissibility of environmental agreements becomes a question of interpretation. It is well established in the case law of the European Court of Justice (ECJ) that reliance on existing „administrative practices” will not discharge a Member State’s obligations under the Treaty. This is because when a Directive is intended to create rights and obligations for individuals, transposition must take place with the legal precision and clarity necessary in order to satisfy fully the requirement of legal certainty. The principle of legal certainty places requirements upon environmental agreements to comply with minimum standards of transparency (i.e. publicity).

In the 1996 Communication, the Commission acknowledged that when Directives intend to create rights and obligations for individuals, the transposing acts need binding force and appropriate publicity. Member States are therefore required to take binding action and may not rely only on the recognition of unilateral commitments on the part of industry. Accordingly, in the opinion of the Commission, where Directives intend to create rights and obligations for individuals, it is generally not possible to implement the relevant provisions through environmental agreements as Member States would not be in a position to ensure that the provisions are applicable to anyone (free-riders, newcomers on the market). This is fully substantiated by the case law of the ECJ. The Commission does however seem to go further than the requirements of EC law when it calls for binding environmental agreements to implement provisions of a Directive which provides for the setting up of general programmes or for the achievement of general targets, where regulatory action would not necessarily be needed to achieve the objectives or targets. In general, existing practice with environmental agreements indicates that they tend not to be legally binding - this is obviously part of their attraction to industry. Accordingly, within the framework of EC law, their applicability appears to be limited.

The EC Report also examined the compatibility of environmental agreements with the Treaty's rules on trade and competition. Environmental agreements have the potential to, but need not necessarily cause internal market problems or infringe the competition provisions of the Treaty. Because the structure and objectives of environmental agreements vary to a great extent a case-by-case analysis would be needed to determine the trade and competition aspects of environmental agreements.

### **III.5 RESULTS REGARDING RESEARCH HYPOTHESES**

#### **III.5.1 Environmental effectiveness**

The study focused on environmental agreements as an environmental policy instrument. This implies that the success or the failure of the agreement had first and foremost be evaluated against the criterion of environmental effectiveness. Environmental effectiveness was assessed under three aspects:

- the relative success of an agreement in meeting its own environmental goals,
- the relative success of an environmental agreement at meeting environmental goals, taking into account the ambitiousness of these goals relative to the technical reduction potential and/or the potential if other instruments had been applied.
- the relative success of an environmental agreement at meeting environmental goals, taking into account the ambitiousness of these goals relative to the baseline.

The latter implies that the agreement is compared to the business as usual scenario or - if this was not possible - to the start situation without the agreement.

The data collected indicated that environmental agreements in general do contribute to a higher level of environmental protection compared to the situation without an agreement. The performance of the agreements studied measured against their own targets was rather positive, with over three quarters of the agreements at least partially meeting their targets. However, only just over a third of the agreements had ambitious environmental targets compared to the hypothetical situation that other policy instruments had been used. In relation to the technical potential for environmental improvement, the agreements generally scored low, i.e. do not come close to what is technically feasible.

Summarising the findings leads to the conclusion that it was not possible to prove that agreements are more or less environmentally effective than regulatory instruments. However, the comparative examination of the potential of other measures had to remain somewhat superficial, because national legislators did not assess the possible effect of neither the agreements nor alternative instruments in advance (*ex ante*). The actual success of other instruments in comparative areas either has hardly been monitored in the past. Sometimes, experiences of other countries with regard to the implementation of alternative instruments could add some data for comparative assessment.

No evidence was found that agreements are faster in reaching results than legislation, the negotiation phase for agreements took in five cases three to five years. However, under certain preconditions environmental agreements can precede and prepare and implement legislation, ensure compliance and even - occasionally - reach higher environmental standards than legally required.

#### **III.5.2 Cost-efficiency**

The case studies revealed a substantial and general lack of costs data on agreements. Apparently agreements were chosen without comparing cost scenarios of alternative instruments. In addition the research showed that there is no evidence to support the hypothesis that environmental agreements are more cost-effective than other

instruments of environmental protection. Moreover, on theoretical grounds it is highly improbable that environmental agreements are more cost effective than other instruments. This is only possible under very restrictive conditions :

- The agreement is reached by a small group which emits the same substances or produces the same hazardous or harmful products.
- The firms reveal all information about abatement costs and future investments.
- They agree upon choosing the minimum cost solution for the entire group regardless of the costs which might accrue to one member.

If these three conditions exist, the agreement will be cost effective in a static way, i.e. at a single point the time abatement costs or environmental protection costs will represent a minimum cost solution.

Only few environmental problems can be addressed by small groups of firms. However, some of the case studies showed that examples exist. But even in these cases there was no evidence found that the companies compare their individual abatement costs. An instrument is dynamically cost effective, if it gives incentives to invest in research and development and thereby lowers abatement or environmental protection costs over time. Under the restrictive conditions identified above it is even possible, that incentives are destroyed in a dynamic perspective. On the basis of economic considerations it is thus also highly unlikely that environmental agreements can go further in their ambitions than operationalising no-regret measures. Therefore, agreements might be able to realise more ambitious environmental results if other incentives like public recognition or other benefits for the companies accompany the agreement.

### **III.5.3 Participation and democratic legitimation**

Of the eight agreements examined, six were negotiated and conducted without participation of stakeholders other than industry and government representatives. The national agreements (Belgium: regional) were exclusively negotiated between the authorities and industry stakeholders. Active public participation was limited to local and neighbourhood agreements. With the exception of one agreement no indications were found that the agreements that were concluded without public participation would have been more successful with participation. That agreement required consumers to take a certain action. This might indicate that it will contribute to the success of the agreement to invite representatives of those groups that have to take part in the implementation of the agreement to actively take part in the negotiation. Information to the public about the agreement and the monitoring results has an important function because public awareness puts pressure on the parties to fulfil their commitments. All agreements were concluded without the confirmation of parliament. However, differences can be observed in this respect. In the Netherlands the targets of the agreements are set by the legislative branch. The targets are not open to negotiation. The agreements are usually connected with framework legislation. Furthermore in The Netherlands parliament does validate agreements, when they are connected with framework legislation.

In other countries the targets are open to negotiation. The targets often represent a compromise between the original demands of the executive or legislative branch and the industry representatives. Agreements are often chosen instead of legislation. This raises doubts about the legitimation of the particular agreements.

### **III.5.4 Acceptance**

The acceptance of the instrument seems to be very high with the industry parties. These parties are in general very positive about the specific environmental agreement. Only in one agreement would industry parties now prefer legislation, because the agreement suffered from free riders. The opinion of authorities is rather diverse, it seems that not all authorities can yet accept the instrument. The environmental organisations showed in all interviews a more critical and sceptical attitude than administration and industry representatives. The reason for this was that objectives were believed not to be far reaching enough or because the goals had not been reached. However agreements lacking ambitious targets are nevertheless regarded as positive to a certain extent because they initiated dialogue between the stakeholders. As a result it showed that there is some evidence that social acceptance is an indicator for the possible success of the agreement but it not generally a precondition.

### **III.5.5. Environmental agreements in the policy mix**

Only the Dutch agreements are part of an explicit government policy to use environmental agreements, the other cases have stemmed more from circumstances, almost *ad-hoc* reactions or general political preferences for non-regulatory instruments.

All the agreements studied are actually functioning in combination with an array of other environmental policy instruments. A general answer to the question how to achieve an effective combination cannot be given, because the effectiveness of each agreement strongly depends on contextual parameters. As a general rule it is concluded that environmental agreements must be accompanied on some level by credible threats that the public authorities do have other means to achieve similar environmental results and are willing to apply these if necessary, as well as by providing interesting incentives to industry.

The actual strengths of environmental agreements in a particular situation should be used to complement the weaknesses of other tools and vice versa, combined with the existing policies. This implies that the strengths of agreements can differ according to the situational context, but also that the benefits and disadvantages of other policy instruments must be transparent as well.

Combining environmental agreements with other policy tools does not necessarily lead to a higher environmental effectiveness. Whilst an agreement can be used to fulfil a number of functions, policy makers need to ensure that the characteristics attributed to environmental agreements in each individual case are activated. Agreements that function in practice as mere communication and awareness raising tools have other characteristics than those which implement environmental legislation.

Agreements do appear to be an unsuitable instrument to negotiate and fix general environmental objectives. Instead, these should be set through legislation to ensure that targets are not lowered during negotiations<sup>1</sup>. The reason for this is that that industry is usually unwilling to agree to anything but lower targets than potentially possible when technology solutions or environmentally friendlier solutions are somewhat uncertain, expensive, etc. Besides, the legitimization of negotiated goals is generally perceived as lower by third parties, which affects the social acceptance of such an agreement.

Additionally it appears that a uniform national reporting system such as the PRTR, PER and TRI<sup>2</sup> would facilitate the use of environmental agreements dealing with emissions reductions.

### **III.5.6. Recommendations concerning content and context**

For an improved understanding of the processes behind (non-)successful environmental agreements, a number of parameters were identified which seem to be of positive influence on the environmental effectiveness of agreements. This correlation was tested in the case study analyses. A distinction was made between parameters pertaining to agreement design and implementation and parameters characterising the setting or political and policy context of an agreement. Also the correlation between cost-effectiveness, public participation and social acceptance with environmental effectiveness was investigated.

As a result of the evaluation of the case studies, parameters correlating positively with the environmental effectiveness of the agreement were identified. They are shown in the table below:

---

1 This reiterates and supports the Communication.

2 PER is the (not yet realised) European Polluting Emissions Register, PRTR (the Pollutant Release and Transfer Register) is the systemic approach of the OECD and TRI is the Toxic Release Inventory of the USA Environmental Protection Agency. This inventory is used to quantifiably disclose toxic substances released into the environment.

Parameters describing the design of the agreement itself	Parameters describing the policy context of an agreement
<ul style="list-style-type: none"> <li>• clear and shared responsibilities for all contract parties involved in implementation</li> <li>• methodology for translation of obligations to individual companies and other parties</li> <li>• clearly defined environmental problem</li> <li>• pre-set (fixed) quantified targets and interim targets of demanding ambition</li> <li>• fixed reference situation</li> <li>• fixed start and end dates</li> <li>• reporting of individual companies, monitoring of agreement, verification of results</li> <li>• evaluations and corrective actions well organised in review groups or similar</li> <li>• passive public access to agreement, individual company and sector-wide results and evaluation documents</li> <li>• credible form of sanctions for free-riders</li> <li>• system for the terms for revision of the agreement</li> <li>• incentives for active companies</li> </ul>	<ul style="list-style-type: none"> <li>• all relevant negotiating and implementing parties participate</li> <li>• credible threat of application of other policy instruments, in particular legislation</li> <li>• high competitive and market pressures for industry parties</li> <li>• associated with other effective policy instruments</li> <li>• high quality environmental policy, driven by mid- to long-term targets</li> <li>• democratic legitimization of policy targets</li> <li>• high quality and publicly accessible monitoring system such as a PRTR*</li> <li>• high political interest in the issue addressed</li> <li>• high public awareness</li> <li>• motivation of relevant actors to tackle the environmental problem</li> </ul> <p style="text-align: right;">* Pollutants Release and Transfer Register</p>

Agreement parameters that were common in all cases studied were: a problem or subject definition, a target defined (although not always quantified), a definition of parties, defined obligations for industry party (however, these obligations were sometimes kept in rather general wording), industry self-financing, relationship to legal and regulatory framework defined and monitoring. These essential factors can be considered the real 'operational basics' of any agreement.

Additionally, it proved necessary or at least helpful for a successful agreement to also have clear and shared responsibilities for all contract parties (which includes a methodology for breaking down the obligations of associations to individual companies), fixed start and end dates, quantified and interim targets, an independent verification of results at the end of each interim period, transparency on the implementation of the agreement, penalties for non-compliance and incentives for full compliance, credible forms of sanctions or disadvantages for free riders and a system for the terms of revision of the agreement.

With regard to the contextual parameters it is much more difficult to define what is really important. This depends in part on the specific case. In general terms, however, contextual parameters are more important than one can draw from previous studies, and than it is addressed in the EC Communication on environmental agreements. For example, the research showed, that prior consultation with all interested groups can contribute to environmental effectiveness by ensuring that the relevant negotiation and implementation actors are identified and included, and that the environmental problem and goals are well defined and reviewed.

Many of the parameters mentioned in the table interconnect with each other and are of influence on the cost-effectiveness of an agreement and its social acceptance. The absence of one or some of the parameters in or around a particular agreement does not necessarily indicate that it is unsuccessful. However, as the case studies illustrate, the greater the number of parameters fulfilled, the greater the chance to increase environmental effectiveness.

#### IV. SCIENTIFIC INTEREST AND NOVELTY

This research has been among the first extensive comparative evaluations of environmental agreements carried out. The research highlighted some points for further investigation. The economic examination revealed a contradiction between the interests of individual companies, which strategically utilise agreements to postpone regulation or to raise the competitor's cost and the social interest to implement cost effective measures for the society as a whole. As the conditions under which the individual and social interests are equally served are

rather restrictive, research should be directed towards a broader basis of case studies including a detailed analysis of public interests.

The research also showed that further legal and political research will be necessary to determine the role of environmental agreements with regard to the further development of the democratic legislative system. Legal research will also be of interest concerning the enforcement of agreements, rights of affected third parties to judicial review and public participation and the connection between environmental agreements and competition law.

It is quite evident that environmental agreements work best in a well balanced combination with other policy instruments. What this combination is, depends very much on the individual case. Further research on the effects of different - combinations of - instruments is necessary.

The evaluation of the environmental effects of the instrument showed not only a lack of data but also a lack of evaluation of other instruments of environmental policy. The further development of methodologies and data collection for a comparative assessment of instruments of environmental policy could give transparency on their functioning.

The research also showed a preference for certain topics and certain types of agreements in different countries. It was not within the scope of this study to examine the reason for this preference. This might also be a subject of future research.

## **V. POLICY RELEVANCE**

It is one of the main results of this research that some of the arguments often put forward in favour of environmental agreements in the policy debate can neither be supported by empirical evidence nor theoretical considerations.

The examination of specific cases did not support the assumption that agreements are more cost effective than other instruments. Quite to the contrary, agreements bring about least cost options under extremely restrictive conditions.

One of the economic arguments in favour of environmental agreements is that they offer more flexibility to reach a certain goal. The research, however, showed that most successful agreements did not leave much flexibility to the parties to reach the goals of the agreements, but instead were very precise about the action to be taken. This conflict between the parallel needs for flexibility and for precise definition of action will have to be resolved in future agreements. The flexibility of means to reach a certain goal within the framework of the agreement has to be distinguished from the flexibility the instrument offers in the policy context and particularly in combination with other instruments.

With regard to the environmental effectiveness of the instrument the research showed that the agreements are often not as ambitious as other instruments discussed in parallel nor as ambitious as the technical reduction potential would allow for. With regard to environmental policy the research showed that the instrument „environmental agreement“ has in the past often been judged too positively.

A particular implication for the policy debate lies in the lack of participation and legitimation of the instrument. Agreements that are conducted on a national level currently do not reflect the spirit of „shared responsibility“.

As environmental agreements do not necessarily need participation of parliament and of the public a certain danger exists that they will function in isolation from the democratic legislative system. Formal procedural rules might offer a solution, but experience in Belgium and Denmark with regulative frameworks for voluntary agreements showed that these were not applied. If policy makers consider participation to be an important value, they will therefore have to seek solutions to achieve more involvement of other parties. However, participation procedures are usually also weak in legislative procedures. This raises the question if agreements should meet the same or stronger participation requirements than other instruments.

A critical development can be observed with regard to legitimation of environmental agreements. The agreements are usually entered into by the administration without confirmation or even participation of the parliament. An increased use of the instrument will eventually lead to a shift in the balance of power between the legislative and executive branches if agreements are used regularly. In this respect the Dutch approach of setting targets with the involvement of parliament and a mandate for negotiation that is bound to these targets can be regarded as a positive example.

The current practice might also raise questions concerning the possibilities of legal review when the rights of third parties are affected by an agreement.

One case study also showed implications regarding the EC Directive on Access to Environmental Information (90/313/EEC). The Directive obliges the Member States to give access to documents held by the authorities. If information about an agreement is exclusively held by private entities it will not be accessible to the public. This problem should be considered in the process of a possible revision of the directive.

With regard to the EC level it has been concluded that the legal framework relating to the use of environmental agreements remains unclear and would benefit from clarification through subsequent practice and case-law. Presumably, as the Commission seeks to put into action some of the recommendations contained in its 1996 Communication, legal and policy issues relating to the use of environmental agreements at the European level and their use as a means to implement Directives at the Member State level will become clearer.

The research does also open up positive perspectives for the use of agreements in environmental policy. It showed that it is possible to enter into successful agreements if the identified pre-conditions regarding context and content of the agreement are met. It also showed that agreements basically can be applied in all environmental policy sectors, provided that industry can contribute to an environmental improvement. The concentration of a great number of agreements in specific policy fields (Waste, Energy efficiency, Phase-out of certain substances) might indicate that the instrument is specifically useful in this area. Another reason, however, might also be that these topics have been in general the major concern of environmental policy for the last years.

Integration of an agreement into environmental policy will produce an effective agreement if policy itself is 'target driven' and effective. This can facilitate negotiations and contribute towards acceptance and credibility by the agreement actors, political parties and the public.

## VI. LIST OF PUBLICATIONS

The full final report and the case studies will be published by Cameron & May Publishers in autumn 1998. The book is under preparation.

The following publication has already been released:

*Gebers, Betty*

The diversity of environmental agreements, in: Glasbergen, Pieter, Co-operative Environmental Governance, Public Private Partnerships as a Policy strategy, Dordrecht 1998, p. 91 pp.

*Lewis, Sanford*

The 33/50 Program of the US Environmental Protection Agency, in: elni newsletter 1/1998 p. 10 pp.