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**Environmental Voluntary  
Agreements:  
A New Model of Co-operation  
between Public and Economic  
Actors**

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**ENVIRONMENTAL VOLUNTARY AGREEMENTS: A NEW  
MODEL OF CO-OPERATION BETWEEN  
PUBLIC AND ECONOMIC ACTORS**

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# **Environmental voluntary agreements: a new model of co-operation between public and economic actors**

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## **Technical abstract**

The diffusion of voluntary agreements can be considered as the result of the innovation of environmental policies based on a new style of interaction between public and private actors. As the environmental problems complexity increases, an evolution of interaction model occurs.

The literature on environmental policy innovation shows in a clear way that the use of voluntary agreements and their real capability to produce relevant effects are strictly linked to the innovation paths of environmental policies, policy styles and policy networks. In this paper we will focus our attention on the evolution of the model of interaction between public and economic actors as the key element to evaluate voluntary agreements effectiveness in policy targets reaching.

## **Non technical abstract**

The diffusion of voluntary agreements can be considered as the result of the innovation of environmental policies based on a new style of interaction between public and private actors. As the environmental problems complexity increases, an evolution of interaction model occurs.

A change in the interaction forms also implies a change in the ways actors face problems and consequently in the ways they think and act. The resulting policy implementation structure is an effect of the participation and co-operation degree of a number of actors (public bodies at the national and local level, economic actors, citizens and environmental associations etc.). And it is also a consequence of the nature of actors and of actors' roles and resources into the decision-making process.

The literature on environmental policy innovation shows in a clear way that the use of voluntary agreements and their real capability to produce relevant effects are strictly linked to the innovation paths of environmental policies, policy styles and policy networks. In this

paper we will focus our attention on the evolution of the model of interaction between public and economic actors as the key element to evaluate voluntary agreements effectiveness in policy targets reaching. The effectiveness analysis proposed refers to the instrument capability to effectively create new policy communities and networks and to the conditions under which the networks can operate and develop effective decision-making processes.

This choice of analysis reflects also the need to better understand the recent evolution in the use of voluntary agreements in Italy, where in the end of 1998 the Italian Government decided to use voluntary agreements as an important instrument to achieve the national commitments for Kyoto Protocol. The recent experiences show that the first obstacle to an adequate use of these kinds of instruments in Italy is still the actors' difficulty to interact in this new way and to understand the conditions and constraints of such a system.

In the first part of the paper (par. 2 to 4) we will outline the evolution path of environmental policies which characterises the emergence of voluntary agreements as a new model of interaction and we will present a short survey on the current debate on effectiveness.

In the second part (par. 5) we will present the recent Italian experience. We will shortly outline general problems relating to the use of voluntary agreements until now and underline the new problems we are facing for the agreements which are in the negotiation phase as a tool for reaching Kyoto commitments.

**Key words:** environmental policy instruments, voluntary agreements

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## 1. Introduction

The diffusion of voluntary agreements can be considered as the result of the innovation of environmental policies based on a new style of interaction between public and private actors. As the environmental problems complexity increases, an evolution of interaction model occurs.

The new approach underlines the importance of the direct involvement of all actors in the policy-making and target setting processes. Public actors are increasingly leaving a portion of their coercion power in favour of a different equilibrium with the other social actors. Actions based on “exchange”, as the result of a “bargaining process” are becoming more frequent. Government leaves its *super partes* role in order to get into the policy arena as an actor like the others. All this means an evolution in policy-making model and in policy content (Hansen, 1997).

A change in the interaction forms also implies a change in the ways actors face problems and consequently in the ways they think and act (Subirats, 1995). The resulting policy implementation structure is an effect of the participation and co-operation degree of a number of actors (public bodies at the national and local level, economic actors, citizens and environmental associations etc.). And it is also a consequence of the nature of actors and of actors’ roles and resources into the decision-making process.

The literature on environmental policy innovation shows in a clear way that the use of voluntary agreements and their real capability to produce relevant effects are strictly linked to the innovation paths of environmental policies, policy styles and policy networks. We could then say that, in voluntary approaches, actors leave their “old castle of roles and behaviours” in order to enter the policy arena under a new and different system of goals, means, resources and interaction forms (Pesaro, 1998).

In this paper we will focus our attention on the evolution of the model of interaction between public and economic actors as the key element to evaluate voluntary agreements effectiveness in policy targets reaching. The effectiveness analysis proposed refers to the instrument capability to effectively create new policy communities and

networks and to the conditions under which the networks can operate and develop effective decision-making processes.

This choice of analysis reflects also the need to better understand the recent evolution in the use of voluntary agreements in Italy. In the end of 1998, the situation was characterised by a high level of incertitude on the capabilities of the system to reach the new ambitious environmental policy goals of the Kyoto Protocol. Italian Government decided to use voluntary agreements as an important instrument to achieve the national commitments.

On the other hand, the recent experiences show that the first obstacle to an adequate use of these kind of instruments in Italy is still the actors' difficulty to interact in this new way and to understand the conditions and constraints of such a system. Even if we can notice a significant increase in agreements quality in time, the effectiveness of the agreements still appears strictly tied to actors' capability and willingness to create new and wider policy networks and ways of interaction.

In the first part of the paper (par. 2 to 4) we will outline the evolution path of environmental policies which characterises the emergence of voluntary agreements as a new model of interaction and we will present a short survey on the current debate on effectiveness.

In the second part (par. 5) we will present the recent Italian experience. We will shortly outline general problems relating to the use of voluntary agreements until now and underline the new problems we are facing for the agreements which are in the negotiation phase as a tool for reaching Kyoto commitments.

## **2. The environmental policy evolution**

According to a Lowi's hypothesis, «The *modus operandi* of public policies is the principal independent variable which explains the relation between different actors: “what” is decided explains “how” to decide and also “who” decides (Dente, 1990)». Apart from all the criticisms followed to this assertion, this approach seems appropriate to illustrate how the dynamics which characterise the evolution of environmental

policies extent and objectives is at the origin of the emergence of new categories of implementation instruments, as in the case of environmental voluntary agreements.

The evolutionary path of environmental policies has been characterised by similar phases in most industrialised countries. The changing process has often started because of the need to respond to human health problems caused by the increasing pollution and, consequently, because of the “discovery” of the need to protect natural environment from the aggressions which were responsible for the increasing deterioration.

This takes us, in the first place, to strategies for the control of polluting emission by industry, easily recognisable as mainly responsible for pollution and excessive exploitation of natural resources. In a second phase, still paying attention to pollution sources linked to economic production, the interventions are directed towards an increase of innovative technology use to minimise emissions (at least to the level of legislative limits). In Italy we can consider this turning point to be the introduction of the “Legge Merli”, in 1976, for the quality control of wastewater.

The environmental policy, in this period, is characterised by the definition of quality standards for single natural resources (air, water, land..) on the one hand, and by the tendency to push the system towards a wiser use of resources to favour the development and diffusion of adequate technologies on the other. The available policy instruments are mostly command and control. Moreover, in this phase the proposed solutions for pollution control are quite exclusively *end of pipe* (purification of emissions just before their diffusion in the environment).

The relationship between different subjects involved in the policy process is extremely conflicting. The weight of public opinion is still low, the opposition by industry is very high and the implementation and enforcement of laws is slow and difficult.

Even if a degree of improvement was achieved, following the realisation of the imposed quality standards, the demand for a stronger public action is growing. At the same time, also because of the increasing presence of environmental associations, the environmental culture and the awareness of the existence of rights of public use of environmental resources tend to be created and diffused. We can notice the widening of the field of the interest conflict and the development of opposition movements to



industrial activities perceived as polluting or dangerous (sometimes with the spectacular effects of the actions of Greenpeace or the antinuclear movements).

At the same time, the increasing availability of studies and information on cause-effect chains that characterise environmental dynamics arrives to demonstrate the impossibility of reversing the environmental degradation process that is taking place if only *end of pipe* technologies are used, due to the complexity, the interdependencies and the environmental processes dynamics (Lewansky, 1997). It is therefore necessary to plan the policy processes on the basis of a new target set, founded, first, on the development of real clean technologies to be diffused on a large scale in the different industrial sectors and, second, on integrated management of environmental problems, aimed at reducing the impacts of firm activities as a whole.

The need for an answer to the increasing “environmental demand” and the need to face degradation problems in a more structured and long term way, push public subjects in the direction of institutional innovation, with the creation of Environmental Ministries and Environmental Agencies. As Lewanski says, for instance, the establishment of the Ministry of the Environment in Italy in 1986 (with a little delay compared to most of the other European Union’s countries) shows the quality jump. This evolution refers to the aggregation of formal competencies previously dispersed around a unique body, to the emergence of a public subject holder of its own interests in this field and to the recognition of a *status* for the environmental policy similar to the other sectorial policies (Lewanski, 1997).

In most of the European experiences the period following the establishment of the new subject of environmental policy is characterised by a series of contacts with industry, looking for instruments for the identification of major environmental problems, priority targets and solutions. If the establishment of the Ministry represents the turning point towards the definition of an explicit environmental policy program, this cannot be implemented without the active participation of economic subjects. As a matter of fact, the definition of an industrial policy for different sectors is increasingly conditioned by goals and environmental constraints on production processes and products (Signorino, 1996).

Policies evolution, at this level, presents also another peculiarity, linked to the growing complexity of socio-economic systems, the environmental protection targets and a strong international interrelation and interdependence. This last element, in particular, has «the effect of weakening the impact of policy actions on the home country, while strengthening their impact on other countries (Majone, 1997a)». Policy actions are then developed which establish close connections between strategies defined at an international level and innovation activities at individual State level (the development and implementation of Agenda 21 is an example).

In light of these factors, the changing trend that characterises the form and the content of environmental policies shows an incremental model, adding the existing objectives to others that reflect the growing complexity of the system. A possible example is the environmental policy of the European Union. In this, a series of basic principles are identified to be the conditions and, at the same time, the foundations for the development of the policy-making process. The action logic is progressively enlarged from the reaction to pollution to the prevention and to the maximum possible reduction of environmental impacts. As a consequence, the number and the variety of actors in the policy arena as well as policy instruments will be increased.

Starting from the *polluter pays principle*, based on traditional command and control instruments, in early '90s the approach changes, as a long term “ecosustainable” development demands not only pollution control tasks but, above all, the integrated action for the reduction of all environmental impacts. Then, the principal goal becomes the participation of all activity fields and social forces, in the direction of the *principle of shared responsibility* among public administrators, public and private sectors and citizens (European Environment Agency, 1997). The introduction of the *precautionary principle* aims to push the system to the reduction of the general impact of human activities. In the more strict interpretation, chosen by the European Union, the principle suggests that no action must be undertaken if there is even a minimum doubt that important environmental damage could occur, independently from scientific evidence (Maastricht Treaty, p.2.18, in European Commission, 1997).

As the policy goals ambition grows, a growing difficulty of implementing the interventions has to be faced, while their efficiency decreases: the action to control

pollution has decreasing marginal costs (Zeppetella, 1996) while involving an increasing number of actors. In addition, to reach concrete results, the more ambitious the policy targets are, the more essential the active collaboration of all the subjects in the policy process becomes. Therefore, to move to preventive policies, it becomes essential to build consensus before the occurrence of environmental damage and to obtain an action coming directly from the subjects that are traditionally subject to policies.

The next phase is the introduction of different and more effective policy instruments, based on changing policy targets and system conditions. A variety of instruments to obtain a range of possible actions to face an environment the ever more complex from the point of view of intervention priority definition, interrelations among different actors and socio-economic impacts.

But the changing path is not a *Darwinian* one, which selects policies to be used in particular temporal phases and in which to chose an instrument means to leave another. It is an incremental evolution, where actors in the policy arena have an enlarged mix of different objectives, tools and means at their disposal. There is no need to abandon a model for a new one, but to contextualise policies and instruments into macro-objectives. The principal target of public governance of environment must remain the degradation prevention by means of quality standards for polluting subjects and of command and control implementation tools. This does not exclude the opportunity to ameliorate these limits by the use of other instruments which enable economic actors to choose fields and action priorities in an active way (see next paragraph).

### **3. Voluntary agreements in environmental policy innovation**

As the complexity of the system and the potential importance of the intervention increase with respect to environmental policy targets and the relative priorities, it is possible to note an increasingly frequent recourse to a mix of instruments. On the basis of the targets themselves, these instruments present a range going from the imposition of quality standards to a variety of mechanisms for the development of new decision sets, based on consensus and voluntariness. In order to determine important changes in

the trends and in the current practices and to involve all society sectors in the spirit of shared responsibility, it is necessary to develop and apply an increasingly large mix of instruments. Environmental policy will then be based on four main sets of tools: regulatory, market-based (including fiscal and economic instruments and voluntary agreements), horizontal support (research, information, education, etc.) and financial support mechanisms (European Community, 1992).

The recent evolution of environmental policy approach shows an increasing tendency of public subjects to actively involve the society as a whole and, in particular, to develop instruments for the co-operation with economic subjects, both in order to define environmental targets and to find adequate solutions. The policy innovation can be identified in the emphasis placed on the definition of sets of long term objectives with a wide political and social base, on the integration of environmental policy objectives in others policy fields (intersectoral integration) and on the mobilisation of decentralised capabilities (Jänicke, Weidner, 1997). In this respect, Majone notes that the traditional trade-off between persuasion and command and control is in a process of great change, as the effectiveness of the first is also eroded by the growing complexity of public policies (Majone, 1997). The new policy's effect is, in fact, dependent on the capability to influence behaviour, consumption patterns and production models of many individuals and firms. Targets that are better met through credibility and persuasion.

This dynamic system develops on two parallel paths: co-operation in order to define laws, under the concept of "negotiated regulation", and the development of new tools, based on direct participation of economic subjects to policy-making processes. In this category voluntary agreements can be found. Promoted, in different cases, by public administration or by economic subjects, these mechanisms permit the active involvement of all of the actors both in the definition of policy targets and in the implementation of solutions.

This trend can be observed in the different European countries and at a more general international level, even if characterised by deep differences in policy styles and in ways to make use of implementation instruments. Every phase seems characterised by a diffuse use of specific interaction models, with variable success on the basis of their peculiarities and of their capability to respond to actors' expectations.

Instruments that characterise this policy-making process, as economic instruments, often represent an alternative solution to the more traditional command and control instruments with particular reference to State failures in implementing environmental policy. The question of “which instruments for which targets” is central to the debate, particularly from a scientific point of view.

The new instrument categories can be found on a *continuum* which, in light of the growing complexity in the implementation of environmental protection goals, goes from direct regulation, imposed to the system by command and control or economic instruments, to voluntary action by economic subjects, in terms of selfregulation and voluntary adjustment to better environmental performance standards (Amadei, Croci, Pesaro, 1998; Croci, Pesaro, 1998).

In the search for an analytical environment in which to arrange these new instruments, it is important to stress how one of the main constraints is linked to their strong variability in terms of form, content, actors and interaction model. A definition was therefore sought which allowed for the taking into consideration of all forms effectively presented in reality, in order to identify main characteristics and modes of functioning.

Under such a dynamic a new conceptual category emerges. It refers to the concept of *joint environmental policy-making*, an environmental policy process developed through common action by a large variety of actors involved in the environmental policy arena. This theory tends to underline the aspects of policy modernisation under an ecological perspective. The policy process is thereby defined as «new environmental policy initiatives that have as a common denominator more co-operative, participative and interactive ways of environmental policy formation and implementation aimed at consensus building of goals, strategies and implementation paths (Mol et al., 1996, p.2)».

The concept of ecological modernisation refers to theories linked to policies innovation and is recent, as the basic literature demonstrates: see Waele, 1997 (in which an original contribute from the same author is quoted from *The New Politics of Pollution*, Manchester University Press, 1992); Mol et al., 1996; Enevolsen, 1997; Liefferink, 1997.

In this contest, innovation is connected to changes in State intervention strategies, where the action is not necessarily directly aimed at the environmental field, but is always strongly characterised in terms of sustainability of public action from an ecological point of view.

Among the dominant elements in this process one notes:

- the identification of science and technology as central elements in ecological reform;
- the growing importance of economic and market dynamics;
- the revision of the traditional role of the State, in light of the discussion of its failures

In the first perspective, the starting point is that, with reference to sustainable development theories and to the necessity to forge an innovative process aimed at prevision, there is a widely-shared need to progressively replace end of pipe with other more advanced technologies. These new, more advanced technologies are not only able to re-orient production processes and products in a more eco-compatible perspective, but are also able to reorganise the entire technological system in terms of ecological selection (therefore replacing, over time, the activities which have unsustainable environmental impacts). The ambitious nature of these objectives notwithstanding, it is easy to understand how, at least from the point of view of theory, that the sharing of targets by all the policy actors involved represents a crucial point in the development process.

With the goal of pursuing an ecologically sound innovative process, modernisation theory strongly emphasises the themes of sustainable development, diffused since the end of the '80s as a result of their insertion in international environmental programmes. The second key factor of success for the new policies is therefore the development of an active role for the economic sectors and greater attention to the dynamics of market mechanisms. As Weale notes, economic development and environmental quality are interdependent, but no more in an adverse or non-compatible way as in the '70s and '80s. Modern market and economic mechanisms can be renewed – and they are, in an increasing way – according to an ecological rationality. The internalisation of the

external effects (pollution) is one of the already visible results, together with the development of environmental standards in economic processes (the diffusion of environmentally sound practices in normal industrial and economic activities, but also the demand for minimum environmental requirements at general company performance level).

On the basis of the regulatory nature of environmental policy and following the general theories on the failure of the State, the modernisation theory reviews the traditional role of the State in the process of policy-making. From centralised and authoritative, often tied to typically reactive, kinds of policies, to participatory and decentralised ones, focused on prevention goals. In a perspective of greater participation of all involved social actors, the tendency is furthermore to shift responsibility for the achievement of given sets of objectives onto the market, even through incentive mechanisms. Some of the main effects of this tendency are:

- the increasing spread of consensus building and mediation approaches;
- the increasing participation of regulated actors (or, more generally, the subjects of the policies);
- an increasing use of informal networks to face conflicts or to build consensus on a specific set of goals;
- a considerable dynamic in the development of new legal mechanisms for public goods protection;
- the environmental conflict management, based on the new balances created by the functioning of the new approaches.

Within this framework, negotiation is not a bargaining form to solve conflicts but, better, a peculiar interaction model of a new way of policy-making. A mechanism to find out goals, to involve actors in a direct way, to mobilise system resources to reach expected results (with reference to different levels of problems, typology of subjects and territorial interest).

Different elements must be introduced in order to explain the performance of voluntary agreements in comparison to other potential instruments which respond to the required new sets of characteristics (e.g. other economic instruments and pure self-regulation,

without the need, at least at a formal level, of public bodies commitment, as in the case of voluntary agreements). The main element is undoubtedly connected to the characteristics of the interaction between public and economic actors or, more generally, among the different groups making up the policy network. The process of ecological modernisation is, in fact, based on changing behaviours and attitudes of all the actors involved in the policy process, in conditions of high uncertainty levels with respect to the need or opportunity for high levels of environmental protection (where regulation or taxes result unacceptable).

- The various levels of public administration can no longer be considered a unique depository for univocal and scientifically defined collective interest. In fact, the traditional authoritative position is no more the only possible one, due to the emergence of new roles and competent bodies linked to specific goals.
- The economic actors are no longer only “part of the problem” but also “part of the solution”, as the innovation process gives firms a role of increasing responsibility and active participation in the processes of defining long term policy targets. This occurs because of their fundamental role in deciding the evolution of production models, technologies and products to be put on the market.
- The other social actors, with particular reference to citizens-consumers, can no longer be simply considered as “those who are polluted” but, on the contrary, they can play a significant role in influencing firms and public administration behaviour (Jänicke, Weidner, 1997) through, for instance, the expression of their preferences.

It is therefore evident that a transformation of the interaction models occurs, producing effects and consequences on the set of objectives and the choice of instruments which can be used to obtain the objectives themselves.

The diffusion of this approach is tied to some basic elements. The analysis of this diffusion provides information on the factors motivating the choice of certain types of tools associated with it – including voluntary agreements – and on their success or failure in reaching the objective set in different national contexts.

Voluntary agreements in the environmental sector are essentially contracts (Amadei, Croci, Pesaro, 1998), although ones having a variety of possible legal consequences



(sanction typology and possibility of recourse to the courts in the case of non-compliance, possibility of recourse in the judgement of third parties, etc.). The distinctive characteristic of their functioning is the way in which the objectives of the collective interest are pursued, that is to say through an interaction between public and economic actors directed to the creation of stimuli to firms for pro-active behaviour and to the exchange of information and experiences.

Under this perspective and from a political-institutional point of view, the political culture of the different national contexts is extremely important: innovation is greater where the policy tradition is already oriented towards co-operation and action based on consensus between public and private actors. But this is not enough to explain why, in environmental policies, the evolution of interaction models occurred starting only from early '90s (Liefferink, 1997).

Therefore the concept of *policy style* emerges, used to point out the existence of cultural factors (Vogel, 1986), of prevailing systems and organisational procedures developed by politicians, public administration and other actors, more or less involved in policy-making processes. If we focus on the development of *policy communities* characterising the different policy systems, the attention is drawn from individual actors role and from individual national realities analysis to interactions which take place inside actors networks and to interdependencies which characterise the development at an international level (Lewanski, 1994).

Furthermore, as Liefferink notes, according to the hypothesis of a progressive revision of the methods for environmental problems regulation, the joint environmental policy-making networks are informed mainly by business interests (1997, p.16). The diminishing use of regulation based on quality standards and on forms of direct intervention by the State leads to the revaluation (even if under particular conditions), of the importance of economic resources, thereby reinforcing the position of economic actors in the policy process.

From the point of view of policy network approach, the experience of countries like Netherlands and Germany is important. In these countries the innovation path goes from an already existing co-operation between public administration and economic actors to a systemic co-operation, that takes into consideration many other actors. This creates a

type of mediation system of eco-corporative interests (Jänike, Weidner, 1997), and an increase of acceptability and legitimisation of policy-making processes based on consensus building.

The development of *target group oriented* policies in the Netherlands is a good example of these dynamics. As Kuks and Ligteringen note, up to mid '80s Netherlands's environmental policies (separated according to specific environmental sectors) «were characterised by a very low participation of policy target populations in the policy-making process, optimistic and therefore ambitious goals and direct regulations as a dominant policy instrument (1996, p.1)».

Moreover, considering the variety of environmental impacts produced by the different groups of actors, the policy-making process develops from policies oriented to specific groups of products, production processes and environmental sectors to policies based on the whole activities and integrated impacts by groups of actors. In the new policy style, the groups of actors previously subjects to the policy-making processes are actively involved in the process itself. A process in which stimulation of self-regulation by target groups is experimented as an alternative governance process, passing from a *theme oriented policy approach* to a *population oriented approach* (Kuks, Ligteringen, 1996).

This policy innovation path is the basis for the development of a consultation system with the different actors groups on an equal level and, consequently, for the set up of “covenants”. Covenants are used by target groups to influence the policy process and by public subjects as an opportunity to obtain an environmental commitment by target groups.

Target group policies principal features are:

- legal targets become boundary conditions for the policy, which develops in a variety of possible ways and on the basis of instruments such as covenants or, more general, voluntary agreements;
- the definition of the agreement's specific goals occurs inside the negotiation process as considered an effective mean to define targets and expected results;
- the integration of environmental rules at the target group level;

- the beginning of a process of internalisation of environmental externalities and of stimulation of private self-initiative;
- the creation of support conditions for the development of environmental policies based on consensus building and shared responsibility.

Under such a hypothesis, the selection of policy instruments is oriented to stimulate the system. Consequently the development of policies oriented to the identification of adequate communication and mutual consultation tools and skills, to the choice for environmental agreements, to the education and, in the different cases, to the adequate financial support results very important (Kuks, Ligteringen, 1996).

Since the beginning of the 1990s, voluntary agreements have been an instrument of increasing importance in environmental policy-making of industrialised countries, although there are some precedents dating as far back as the 1980s. From the point of view of economic players, interaction with the public administration in the environmental field constitutes a strategic aspect that conditions their development. From the point of view of the public administration (in its role as regulator), interaction with industry in the environmental field is an aspect of environmental policy (Crocì, Pesaro, 1998).

In the wake of the *joint environmental policy-making* approach, the relevant context elements which could contribute to explain the reasons of the present degree of diffusion of voluntary agreements and the increasing attention paid to their functioning model seem to be similar to those Liefferink notes for JEP (1997, p.9-13):

- the existence of deregulation and new regulation trends, based on a different equilibrium between public and private actors;
- a political modernisation dynamic which underlines partnership and co-operation between public and private actors, in many cases coming with policy networks characterised by corporative models which promote policy programs or ideologies with a high degree of functional representativeness and interaction among actors involved in the policy processes.

First, the emergence of State failures and the consequent trend to decrease direct intervention areas by public administration take to the formulation of new regulation

models, which combine market-based elements with a great confidence in shared responsibility. This is particularly evident in environmental policies, where the re-regulation process is based on interaction among all the actors in the policy arena.

In this respect, voluntary agreements represent a way to concretise this approach, drawing particular attention to the active and responsible involvement of industry as the actor with the competencies, capabilities and resources needed to effectively implement the new generation policies.

Secondly, the dichotomy between economy and ecology is decreasing and, moreover, economic development and environmental regulation are interdependent, as states the well-known theory of sustainable development (World Commission on Environment and Development, 1987). This implies an increasing importance of the market-based mechanisms on the one hand, and the active involvement and assumption of responsibilities by actors originally subjects to the policies on the other. Here actors are called to participate in a direct way to policy-making processes, due to their role in terms of control on key resources for the innovative process.

#### **4. The conditions of applicative effectiveness: the debate**

The evaluation of the effectiveness of the voluntary agreements is currently the subject of heated debate. Furthermore, the debate is characterised by a substantial lack of experience of its application, as well as data and adequate reliable methodologies for evaluation. The debate is being developed in two directions: the economic evaluation of the instruments of environmental policy-making with the objective of identifying those with better performances (AA.VV., 1996) and the need to verify the effective capacity of a series of interventions in order to achieve the environmental goal desired (European Environment Agency, 1997). Despite having recognised the importance of this limitation, empirical evidence leads to the identification of possibilities and conditions of functioning which characterise the use of agreements.

When voluntary agreements are used in the best conditions, under determined constraints for the actors adhering to them and in a policy innovation context, it is

thought that properly functioning agreements could allow for the achievement of a series of desired results which would not otherwise be possible through regulation:

- greater applicative effectiveness as the objectives are determined on a consensual basis;
- greater applicative flexibility and the possibility of rapid, consensual adjustments in tune with evolving reality;
- greater awareness of local particularities and the capacity to adapt to the context, valuing the principle of subsidiaries.

The major international organisations refer to a very similar group of arguments, as demonstrates by OECD (Storey, 1996) and European Union (Commission of European Communities, 1996, European Commission - DGIII.01 Industry, 1997 and European Environment Agency, 1997) positions.

As an example, the European Commission, in its 1996 Communication on Environmental Agreements underlines some possible benefits (at due conditions) Commission of European Communities, 1996, part III):

- the encouragement of a pro-active approach from industry, as they lead to the dialogue with firms not only at a consultative level and in the final phase of regulation process, but during the whole decision-making process;
- cost-effectiveness, as they leave greater freedom to industry to decide on how to reach the environmental targets, leaving the companies to find cost-effective solutions adapted to its specific situation;
- faster and less constraining achievement of objectives compared to the legislation.

The recent study by Mol et al. (1997) proposed the comparison of effectiveness of voluntary agreements in reaching environmental goals in three countries which seem to present the same features in terms of policy style and policy network: Netherlands, Denmark and Austria.

Even if the evaluation has not been really methodical, some important conclusions could be drawn on agreements direct functioning (Mol et al., 1996, p.20):

- voluntary agreements are most applied and seem to work out rather well on single product use or emission source control and on waste management issues;
- difficulties emerge in capability to conclude commitments when private participants are very heterogeneous, fragmented and loosely organised;
- voluntary agreements seem effective where economic actors can find a series of favourable conditions for the development of activities object of the agreements: available technological solutions, budgets allocated to develop such solutions (high pro-activity level) and solutions which entail only moderate costs.

In any case, the effectiveness analysis must be conducted on different perspectives when use of voluntary agreements is the consequence of the impossibility to face an environmental problem by command and control regulation. This is a critical aspect, as most of the available empirical experiences demonstrate that voluntary agreements are rarely chosen because of their intrinsic qualities, but, more often, because of the aversion or opposition to authoritative imposition and to the use of instruments with heavy impacts on socio-economic systems.

In this context, emphasis is placed on the fact that the greater flexibility obtained using contractual instruments must be balanced by a clear system for classifying the relationships among the actors involved. The context of reference, the premises and the starting conditions, the objectives and the proposed means of achieving them must be clear and plausible.

The voluntary agreement therefore represents both strong potential with respect to its ability to achieve consensual solutions, as well as margins of “risk” with respect to the way in which it is used (Amadei, Croci, Pesaro, 1998).

The involvement and the direct or indirect consideration of the positions of the other actors that are interested in the agreements - without being participating, contracting parties - are also important. These actors include:

- competitors;
- other firms in the sector;

- social forces (citizens, environmental associations, consumer associations, unions, etc.).

With respect to the social reference system, four elements, in particular, have been underlined by environmental associations as essential for the correct and effective functioning of the agreements (Friends of the Earth, 1995):

- the legal nature of the instrument, in particular in the lack of formal elements whose functioning could bind the signing parties to their commitments in due time and acting ways;
- the transparency during the negotiation process, with particular reference to a possible “regulator capture”;
- the availability of formalised instruments for the control of activity phases and for the checking of the achievements of targets;
- the adequate accessibility to information concerning all the agreement phases.

The main factor that tends to emerge with respect to the conditions for the functioning of the agreement is then the definition of a guarantee system. Three aspects of this are described below:

- a guarantee of the reaching of concrete and reliable results with reference to environmental policy targets, that means that agreements must not represent a way to lower the degree of environmental protection. This requires the negotiation to have as the object interventions with clear, effective and measurable environmental improvement contents. The interventions also need to occur within a clear reference framework on the basis of which the improvements must be measured.
- a guarantee of the transparency of the process of integration and negotiation with respect to social actors and institutions. This requires the establishment of a system of regulations which allows for a climate of trust and understanding where the solutions adopted and the results obtained are publicised (in order to disperse doubts of collusion among institutions and firms and to give the public administration the required check and control) (Amadei, Croci, Pesaro, 1998);

- a guarantee to check the competitive conditions between firms that have access to and those that do not have access to the negotiation tables with respect to economic players. This is done to avoid a distortion of competition and as an assurance of the respect for the commitments made by the public (Amadei, Croci, Pesaro, 1998);

Transparency and protection of competition become the two principal key elements with regard to the evaluation of the effectiveness and equity of voluntary agreements in comparison with the other instruments available for the achievement of environmental objectives.

In particular (Croci, Pesaro, 1997):

- Voluntary agreements are an instrument that defines reciprocal commitments, and is therefore an instrument that formalises an exchange. Furthermore, this is the origin of the majority of the criticisms of its use: the institutional actor, in fact, unlike regulatory activities, commits by using several public resources. It is therefore necessary that the conditions to which the commitments must be maintained be highlighted in the text of the agreements. What follows is therefore a problem of legitimisation of action and commitment and the ability to verify the achievement of the objectives with respect to the interventions undertaken, both by the public administration and by the economic actors.
- Voluntary agreements, in order to effectively reach their pre-set objectives, must contain the conditions for checking and controlling: the effective undertaking of the pre-established activities; the capacity for the action undertaken to bring about the anticipated results in the time foreseen; and the quality of the results achieved with respect to the provisions. The crucial point for the development of voluntary agreements is the verification of the putting into action of the predicted interventions to the foreseen conditions.
- The social legitimacy of the recourse to voluntary agreements as an instrument must be guaranteed through adequate formalisation, particularly with respect to public action. In fact, the agreements tend not to pass through the normal channels of “democratic” decision-making, unlike policies expressed through law.



The empirical evidence shows the importance to evaluate the interdependencies between institutional forms and the models of agreement in the various countries as a result of a certain policy style and of a prevalent interaction model. Policy style and interaction model have in fact an influence on the way to incorporate the new instrument within the existing institutional model. This, in fact, also influences the realistic capabilities and potentials of the instrument functioning (as demonstrated by the effects of the interdependencies at the European Union level and the consequent Union's choices).

However, one of the more controversial points in the current effectiveness debate remains the result assessment. As a matter of fact, up to now it has been very difficult to measure real effectiveness of voluntary agreements, due to the relative innovation represented by voluntary agreements as an environmental policy tool and to the high heterogeneity of data collection activity in this field at the European level.

In particular, the actual experiences seem not sufficient to verify voluntary agreements potentials in terms of cost-effectiveness. This is, perhaps, one of the most controversial points of the debate, as supporters and opponents to the instrument have often presented their arguments in favour or against the use of agreements on a purely theoretical basis and in lack of case studies. That is without a sufficient taking into consideration the influence of the elements connected to real situations, the policy targets and the availability of other instruments, the concrete functioning conditions and means and the implementations constraints.

## **5. The use and diffusion of voluntary agreements: the critical elements and the evolutionary path in the recent Italian experience**

From the point of view of use and effectiveness of voluntary agreements, the Italian experience (Pesaro, 1998 and Croci, Pesaro, 1998) shows that better results were obtained when:

- The agreements were considered an implementation tool of legislation at the local level and when the situation was strongly characterised by territorial peculiarities.

This effect was even more evident in the case of agreements signed in industrial districts with specific productions and production processes;

- There was a need for an adequate instrument to push public administration to an active intervention to solve problems at the local level (for instance, infrastructural interventions for the improvement of selected waste collection activity);
- The agreements had an anticipatory or integrative value (Croci, Pesaro, 1998) with reference to legislation. This because:
  1. it resulted difficult to encourage companies to adopt an innovative technology path in an autonomous way (because of the potential effects of an autonomous action on sector competitiveness);
  2. an eventual intervention based only on legislation could make the level of commitment for industry unacceptably high;
- The agreement presented some basic elements: clear and, when possible, quantified targets; a reference framework to measure the environmental performance and the expected improvement (e.g. in percentage on a defined basis in a defined time); a type of control and checking mechanism for evaluating results.

In general terms, the use of voluntary agreements was conditioned by:

- the duration of the agreements, in particular at the level of the evaluation of results. In fact, the long-period commitment and the natural evolution of the firm (without the agreement) must be considered;
- the capability, during the evaluation phase, to make a distinction between the effects which are a direct result of the agreement and those produced by particular circumstances or by laws that begin to work at full capacity;
- the insertion of elements which consent an assessment on agreements' capability to obtain the expected targets, in the present reality and with reference to the importance of the environmental problems to face;
- the identification of evaluation instruments which could increase the credibility and legitimisation of the use of voluntary agreements (with reference to other possible

action forms). This through the definition of a recognisable model, accepted by the whole reference system,

In particular, in the interaction process of voluntary agreements, the role and the position of the different groups of social actors have a relevant influence on the evaluation of environmental effectiveness, cost-effectiveness, real dynamical effects on real situation (both at the technology development level and at the behaviour model level).

It is important to underline that public administration attitude and way of acting must evolve for a correct and effective use of the instrument. Public administration must, in fact, develop the capabilities to understand and take into consideration the signals coming from industry. This implies a shifting from the *command and control* mechanism and from the rule imposition towards shared action based on voluntariness. On the other hand, as the evolution implies high costs and as the changing dynamics deeply influence the system as a whole, the action perspective has to be a long-period one.

In the Italian experience we can recognise three phases in the diffusion of voluntary agreements:

- Agreements signed until 1996, before the European Commission has officialised this instrument. These agreements present a high variability degree in terms of form and content. Furthermore, they were not easily recognisable due to a low degree of information diffusion and the incapability of the signing parties to use the new instrument;
- Agreements signed between 1996 and 1998, more accomplished than their predecessors, but still not inserted in a clear policy project on the use of new instruments;
- Agreements signed after 1998 and in negotiation phase. These are the product of an interaction with increased awareness of the nature of the commitments and of the conditions of collaboration between public and private actors. Moreover, they are included in a more accomplished policy framework, developed under the Kyoto Protocol commitments influence.

The sector agreements seem to respond better way to this last model, as they contribute to the definition of the rules to be applied on a broad level and to reduce the *free rider* behaviour (as an influence on policy results).

On the other hand, sector agreements are more difficult to accomplish in Italy. In the negotiation at the sector level, the identification of shared goals between public administration and economic actors becomes more difficult as well as the sharing of commitments among individual companies inside the sector. The analysis of the Italian situation (Pesaro, 1998; Croci, Pesaro, 1998) shows significant differences at the local level. A possible example is the case of the transport sector, where the peculiarities of infrastructures and activities at regional and sub-regional level make it difficult to identify common goals and commitments.

In the perspective of Italian commitments for the Kyoto Protocol, ENEA (National Body for Innovation, Energy and Environment) tried to promote voluntary agreements during 1998 in a variety of economic sectors and policy frameworks. From the point of view of interaction analysis, ENEA's experience has been of great value as it shows that effectiveness of agreements begins at the negotiation level, when content, form and control and checking conditions are discussed and accepted.

ENEA's experience, even if at a level of agreements project, shows both strong and weak points in the realisation of projects and isolate the critical points linked to individual sectors peculiarities and environmental matters. From the analysis of the projects it emerges that the use of voluntary agreements, in particular at the economic sectors level, is often very difficult if not impossible. Most difficulties occur in the following circumstances:

1. Many differences of interest between potential signing parties;
2. It is impossible to guarantee the adherence to the agreement of all subjects who's action is needed for the agreement success (in particular in industrial sector negotiations in presence of potential free riding attitudes);
3. The implementation of the agreements implies or is conditioned by the intervention and the action of non-signing actors (e.g. agreements in which the industrial performance was submitted to a change in water and electricity tariffs managed by public parties not directly involved in the negotiation process). This holds also when

the agreement's success is closely tied to the development of specific legislation with obligations for a number of non-signing parties (e.g. a project for the increase of electricity production by cogeneration where signing parties asked for a regulation for a favourable access of producers to the electricity distribution net with the absence of the net competent body);

4. There is a little coherence between content and commitments foreseen by the agreements and concrete actions that can realistically be developed by signing parties. Targets must be developed on the basis of the real nature and realistic capabilities of the parties. In order to reach goals all concerned subjects must be involved, even if this means to open the agreement to other signing parties or individual subjects;
5. The complexity degree of the situation is too high and there is a lack of adequate information for the development of concrete actions in time (i.e. for this kind of agreements, a short to medium term, between 2 and 5 years).

Moreover, the use of voluntary agreements as a more flexible and adequate instrument with reference to market balance and dynamics seems linked to a number of different and important "systemic" conditions.

The diffusion of voluntary instruments, as a means to force parties' to assume their responsibilities for the functioning of the new action mechanisms, demands an increasing confidence and serious collaboration between public administration and the economic system (industry in particular). At the same time, a renewal of the administrative and institutional organisation must also be achieved, in order to associate the major flexibility of instruments with new organisational models or with a major flexibility in the public-private interaction (still undermined by a bureaucratic administrative culture).

The choice by public administration to use voluntary agreements on a broad scale and at every territorial and economic sector level implies also the realisation of promotion and diffusion mechanisms. In particular a number of resources and capabilities must be called upon:

- economic and financial (both in terms of accessible funds for the development of agreement projects and in terms of incentives and defiscalisation means);

- legislative (instruments for the administrative simplification, reduction in the number of laws and their complexity, regulation containing the explicit reference to voluntary agreements as a possible implementation tool in a variety of fields);
- organisational, with the realisation of “infrastructures” for the negotiation of agreements and to supervise their development and results;
- informative, for the diffusion of an “agreement culture” among all the potentially involved actors and for a better understanding of the functioning mechanisms of the instrument.

With reference to the finding and the use of financial resources by public subjects to promote and realise agreements, the accessibility to the funds must be conditioned by a number of constraints and clear rules, in particular for sector agreements at the national level but also at the local level. This as a guarantee for the real achievement of the expected result in the time and ways outlined by the agreement itself.

In the same perspective, the public subjects will have to face the problem of definition and implementation of checking mechanisms, with a logic of clearness and measurability of results against a pre-specified system of indicators.

If objectives are quantified, the checking process is easier. On the other hand, actions for the achievement of environmental goals could also be qualitative. In Italy, for instance, we have to underline the importance of the availability of agreements as a co-operation and co-ordination tool. In a first phase, the different parties co-operate in order to realise the starting conditions. In a second phase, under the outlined conditions, the parties can isolate operative goals and intervention priorities in more specific agreements.

It is interesting, from a policy-making point of view, to have the possibility to negotiate agreements where joint action is the goal. This under a main constraint: the agreement must be able to identify a kind of “product” the effect of which could be verified and controlled. In the Italian experience, an example can be found in the negotiation process in the transport sector. In that sector, the serious lack in terms of disposable data and information makes it difficult to develop an effective decision-making process, both in terms of innovation path and environmental performance. In such a case, the

development of an agreement with goals of information collection and experimentation could represent an important step towards the realisation of more coherent policies with a larger potential to be effectively implemented. Moreover, the agreement serves the purpose of assembling around the negotiation table actors that, until that moment, were unable or unwilling to collaborate in information collection and elaboration (basic elements for the following long-term decision-making process in the sector).

The identification of a general guideline framework for the realisation of agreements is a key element. And the principal condition remains the clear definition of targets and commitments by parties. This to make the checking and control activities easier and more transparent to parties as well as to third parties.

This addresses to another crucial issue: the sanctioning system in case of breach of contract by signing parties (also in the debate at the European Union's level). In the Italian experience, it seems not necessary to identify a "standard model" for the sanctioning intervention. If in the reference system the agreement culture is diffused and legitimisation and social acceptability degree are fairly high (in presence of action constraints and control rules) it should be possible to create the conditions to avoid a standard and rigid "formula" of voluntary agreement and not lose the instrument's flexibility and adaptability features. These advantages depend on the functioning conditions quality and not on the exclusive use of a rigid and unique model. The quality of functioning conditions makes the agreement binding to the signing parties and transparent to third parties, together with the presence of a number of basic elements (on the formal base of a general reference list, like the European Commission's proposals in the Communication of December 1996).

This means also that one of the most important starting points for an extensive and advantageous (in terms of environmental goals) use of voluntary agreements is the capability by public bodies to create a clear and stable policy innovation path. The choice of instruments is the "long-term product" of a visible and direct decision-making process. This addresses the capability of public administration to indicate in an explicit way the stated priorities, both in terms of targets setting and public-private interaction mechanisms, as a signal of constancy and coherence of public action.

In Italy the institutional reference framework, in recent years, seemed particularly favourable towards the realisation of a system for the implementation of environmental objectives based on voluntary agreements. Agreements have been indicated as a prior level instrument for the achievement of the Kyoto Protocol commitments. In fact, during the second National Conference on Energy and Environment, held in Rome in November, 25<sup>th</sup>-28<sup>th</sup> 1998 (the first one was held ten years ago), a “Pact for Energy and Environment” has been undersigned by all involved social actors: national government, public bodies at national, regional and local level, economic associations in all sectors, social and labour associations, environmental associations and consumers associations.

The Pact is the expression of a political voluntariness to adopt a system of voluntary agreements as an important procedure to achieve energy and environment goals. The system consists of a network of sector national, regional and local agreements, as well as of agreements signed by individual economic actors on particular goals. The project provides the premises for the sharing of policy targets by all involved social parties. It allows further to identify the basis of a common commitment and to indicate a number of functioning conditions for the system implementation.

The Pact is a political-institutional framework agreement. Its functioning mechanism allows the implementation of the political trends presented in the document itself by a system of agreements where, at the more adequate sectorial or territorial level, concrete objectives and commitments are identified. The technical and operational conditions are outlined in a clear way as well as the agreement duration.

Moreover, the Pact outlines not only the functioning conditions for the systems, but give clear terms for the targets reaching. In the case of complete inaction by the signing parties during one year, or in case of default of negotiations in a slightly longer period, a regulation already prepared will be put into action. A Control Committee has been created, while CNEL (National Council for Economic and Labour), in which all social parties are represented, will act as the guarantee.

The agreement system, even if created to connect national sector agreements as a framework for sector regional and local agreements and individual local agreements (as the real implementation level), does not assume a necessary hierarchical or chronological dependence between the different types of agreements. On the contrary,



in some real experiences, it emerged how the development of sub-sectorial or partial (signed by only a part of the sector companies) agreements could represent an important phase to further and deepen negotiations at the national level (from the point of view of contents, conditions and involved subjects).

In December 1999, one year after the signing of the Pact, a state of the art has been drawn by ENEA and CNEL and presented during a workshop (Falasca, 1999): what are the results of one year of interactions and discussions between public and private actors within the Pact framework?

The implementation capacity, at present, seems weak. ENEA is working on 36 national level agreements: 5 in energy sector, 9 in transport sector, 4 in renewable energies, 5 in civil sector and 13 in industry. But only 6 agreements have been designed after the Conference while, on the whole amount of 36, only 4 have already been undersigned and 7 are in the realisation phase.

The main reasons are identified in (Falasca, 1999):

1. a scarce awareness of the potentials of the instrument itself by public and private actors, as it demands a new way of interaction and negotiation culture;
2. a kind of opposition by economic actors, expecting incentives and, to a large extent, unable to really understand the opportunities coming from agreements in energy saving sector (a priority area according to the National Conference on Energy and Environment goals);
3. the delay of the Italian government in designing the regulation framework.

Although the national level agreements appear as to necessitate some more time to be adequately designed and implemented, the process at regional and local level seems more dynamic.

The design and implementation capability results greater when actors and problems occur on a restricted territorial area. At this level, interactions and negotiation activities are definitely more strictly related to singular targets and it is easier to get all the stakeholders involved into the agreement process, while success chances significantly

increase. In this case, voluntary agreements are used as more flexible tools, capable to push local systems to develop actions and solutions for specific needs.

Voluntary approaches are then being incorporated in environmental policies at regional, provincial and municipal level, with particular reference to local action for sustainable development (Agenda 21, Territorial Master Plans...). This behaviour, on the other hand, is more frequent where local administrations already have experience in negotiating with economic subjects (Milizia, Tamborra, 2000) or are looking for new instruments of interaction at territorial level (see Emilia Romagna, Liguria, Piemonte and Trentino).

We could consider all these experiences as a “work in progress” towards a new model of negotiation and co-operation proposed by public to economic actors, the goal of all these policy actions being the increasing of the diffusion of voluntary agreements. And this can be regarded as a signal to clear up the concrete and stable importance the public actors attach to the new policy approach. The environmental policy action at national and local level seems in fact oriented to provide for a framework for the diffusion and adequate implementation of these instruments. Negotiation and voluntary activities are more and more present in regulation acts and laws and embedded within a system characterised by a major recognisability, legitimisation and social acceptability, where a major amount of resources can be mobilised but within a precise constraint system.

Economic actors, by their side, will have to demonstrate their real capability and willingness to use the new instruments in an adequate way and the real voluntariness to undertake their commitments.

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