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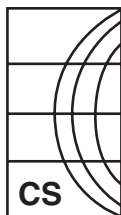
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Local Settings and Biodiversity

A Sociological Approach to the Implementation of the EC Habitats Directive in France

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abstract: Since the UN Conference on Environment and Development, held in Rio de Janeiro in 1992, preserving biodiversity has become a sine qua non of environmental management and part of official policy. The EC Habitats Directive (HD) was adopted in the same year, with the aim of creating a European network of sites rich in biodiversity, under the name Natura 2000. Following a period of controversy that in 1996 led to its application in France being frozen, the Ministry for the Environment opted for a process of consultation and discussion to determine how each site was to be managed. The resulting instrument, called the 'document of objectives' (*Docob*), appears to be an example of procedural policy-making that provides a framework within which agreement between the various actors involved at local level may be achieved. Its aim is to encourage local actors to take upon themselves the task of preserving biodiversity. This article follows closely the interactions among the various participants, in those spaces for debate, or 'local settings' or 'stages'. The thinking thus developed foregrounds the study of a policy 'in progress'; it tries to characterize the status of local settings and to explain how they can be understood from a sociological point of view. It shows that provisionality and proliferation of procedures are necessary conditions for implementing this directive, and indicates a number of specific features of environmental politics. Lastly, it asks questions about establishing a new way of managing the natural environment

keywords: biodiversity ♦ environmental policy ♦ Habitats Directive ♦ local settings ♦ management measures

Since the UN Conference on Environment and Development, held in Rio de Janeiro in 1992, preserving biodiversity¹ has become a sine qua non of environmental management and has entered the public policy agenda. The EC Habitats Directive (HD) was adopted in the same year, with the

aim of constructing a European network of sites rich in biodiversity, under the name Natura 2000. This directive, which was based on new scientific thinking, marks a turning-point in existing French environmental policy, in attempting to promote methods of management that are compatible with human activity, in a perspective of sustainable development. To translate scientific knowledge into concrete management methods at local level is one of the key issues of this EC directive, which gives member states freedom in applying it.

Following a period of conflict in which a section of those involved in aspects of rural management (farmers, foresters, game-hunters, anglers, etc.) mobilized against the HD, and which led to its application being frozen in 1996, the Ministry for the Environment adopted a process of consultation and discussion to determine how each site was to be managed. The resulting instrument, called a 'document of objectives' (*Docob*), appears to us to be an example of procedural policy-making that provides a framework in which to seek agreement among the various actors involved at local level. It offers an opportunity to investigate whether the actors are taking upon themselves the preservation of biodiversity (and if so, in what way), and how they approach it and translate it into their everyday practice. That is why we decided to study closely the interactions between the different participants in the places where debates about composing the *Docobs* took place, which we call 'local settings'.²

We started from the hypothesis that in the course of composing the *Docobs*, a local compromise would be arrived at between the demands of the European Union as applied by the French environmental authorities, the data provided by naturalists and the forms of knowledge and practice that are the province of actors without technical expertise. We also assumed that interactions within local settings could lead to learning processes capable of reshaping the form and content of exchanges between the various participants in the debate, and of creating new types of expertise. The research that we carried out in four regions confirmed the breadth and interest of the themes addressed in the course of the debates that took place in 'local settings'. In addition, these dialogues were accompanied by a proliferation of procedures that was a major aspect of implementing the HD. In short, it was a matter of reconciling economic and social activities with categories of scientific knowledge that were both complex and tentative.

This study contributes to several lines of thought. First of all, it elucidates the conflicts of interest and legitimacy provoked by environmental conservation in the countryside. It then enables us to question the 'new' forms of public action represented by locally focused procedural policy. Do these modes of collective action herald the emergence of a new type of environmental administration that is ever further removed from the

action of central government? Lastly, it throws light on the details of official environmental policy.

After presenting the content of the directive, the problematic and our reasons for privileging the study of a policy in progress, we concentrate in the second part on putting it back into the context of what it is convenient to call the new modalities of public action. This enables us to show how this policy articulates prescriptive and deliberative aspects. Lastly, we devote the final part to describing 'local settings' and explaining how we understand them from a sociological point of view.

The EC Habitats Directive: Managing Biodiversity between Conflict and Consultation

Adopted in 1992, the year of the Rio summit, the Habitats Directive is presented as the EU's principal tool for preserving biological diversity under threat, an idea adopted as a benchmark, despite the scientific problems it poses. The aim of the HD is thus to 'contribute towards ensuring bio-diversity through the conservation of natural habitats and wild fauna and flora in the European territory of the Member States to which the Treaty applies' (article 2). A list of habitats³ and species judged to be in need of protection if this aim is to be met appears in an annexe to the directive as a means of identifying sites capable of guaranteeing this kind of conservation. Each site should then constitute one element in a network of Special Conservation Zones (SCZs), named Natura 2000, based on a division of the country into five bio-geographical regions,⁴ whose interpenetration with surrounding areas was borne in mind. The aim was to develop in the SCZs 'a series of measures required to maintain or restore the natural habitats and the populations of species of wild fauna and flora at a favourable status' (article 1.a). It was thus no longer a question of 'freezing' nature in sanctuaries, but of preserving the potential for ecological development while maintaining human activity.

This approach springs from conservation biology, a discipline dating from the late 1960s which aims to combine the methods of natural science and land management. Conservation biology is thus a science geared towards action; as Jean-Louis Fabiani (1995: 89) stated, it cannot be imagined 'without reference to a protection policy that produces rules and regulations for describing spaces and for placing them in a hierarchy'.

Under the definition proposed in 1980 by the International Union for Conservation of Nature (IUCN), the notion of conservation covers 'the preservation, maintenance, sustainable use, restoration and improvement of the natural environment'. In the name of these management principles, the HD obliges every government to preserve species and habitats 'while at

the same time taking economic, social, cultural and regional requirements into account'. The HD's originality lies in the desire expressed by its authors to consider, in zones demarcated according to scientific criteria, the consequences of human activities in a perspective of sustainable development. In other words, it is a matter of reconciling the scientific aspects of environmental conservation with the cultural, economic and social aspects of human activities. In that framework, local populations and the users of local space appear as partners in environmental conservation. The modalities of this process are left to the initiative of member states, who have a choice of methods, both for identifying sites and managing them. The HD thus combines in a complex and problematic way the production of scientific knowledge and its use in local action. It contributes to shaping the social as much as the natural environment.

This research, centred on the process of designing management measures to encourage the preservation of biodiversity, represents the continuation of earlier work, undertaken in 1997, following the violent conflicts during the demarcation of the sites: a stage prior to the writing of the *Docobs*. The list, drawn up by experts, was the object of extensive criticism, to the point where, in 1996, the prime minister decided to freeze the application of the HD. Our work (Alphandéry and Fortier, 2001; Rémy et al., 1999) at that time enabled us to show in particular that beyond the hostility towards the directive displayed by the principal representatives of various interests – forestry, farming, hunting and angling – that coalesced to form the 'Group of 9', it was the preeminent place allotted to science and its forms of knowledge, in the French instrument for identifying sites, that dominated many debates. Forms of scientific knowledge are indeed placed at the core of the EC Habitats Directive, as of an increasing number of official environmental policies, whether it is a question of defining the habitats and species to be protected, identifying sites that meet those objectives, proposing management methods or evaluating the results of such methods. Furthermore, it was to this challenge to the monopoly of science that the minister of the environment was attempting to respond, following the 1996 crisis, and he radically altered the instrument that defined the boundaries of the sites. The adoption of a consultation procedure that encouraged the various actors possessing a range of skills and knowledge to become involved in the work of designating sites made it possible to calm the conflict and to proceed with applying the HD, as required by the EU.

In other words, it is the way biodiversity is handled that has changed. The first phase of the HD consisted of lists of annexes to the directive and the geographical delimitation of sites by scientific experts. Then the sudden appearance of new actors on this scene, often bringing with them

knowledge about the spaces involved, complicated the use of the databases by contextualizing them and putting them into historical context (Bowker, 2000: 645). We interpreted this phenomenon by suggesting that this recognition of the social dimension, with its interdependence among actors using the same space, its conflicts and forms of cooperation, turns Natura 2000 sites in France into 'local settings' of biodiversity.

The analysis developed here is based on research carried out by the Grenat network from 2000 to 2005, whose primary objective was to study the formation and operation of the 'local settings' in which, site by site, the 'documents of objectives' were written. The procedure for writing the *Docobs* was set out by the Ministry of the Environment (Ministère de l'environnement, 2003: 25) as follows: 'The *Docob* represents an innovative approach. The prefect of the *département*, with the help of a technical assistant (and with provision for extensive local consultation) is responsible for its production. The steering committee, under the prefect's authority, consists of the partners involved in managing the site (such as local organizations, landowners, farmers, voluntary bodies and users) or their representatives. This document defines management approaches and contractual conservation measures, and indicates, where necessary, the statutory measures to be enforced at the site. It states how the contractual measures are to be financed.'⁵ In view of this, we wished to see what happens when different points of view about nature are brought into contact and confront one another, as well as studying the kinds of knowledge (technical, lay or scientific) that the actors bring into play. Over and above conflicts and disagreements, is the process of deliberation capable of creating new modes of learning, in other words, of gradually constructing a shared cognitive framework? We also tried to question the status of 'local settings' as a form of participatory democracy. In what sense are they public spaces that legitimize the creation of measures for managing the environment? What scope is there for consultation in a procedure that is required to produce results? In short, we had to understand how the actors on the ground took ownership of the preservation of biodiversity, and how the HD transformed environmental management in France in the name of biodiversity. This rapid summary of questions shows how the different stages of our research led us constantly to move from the local to the national, and then to the European level, and back again.

Our decision to work on a policy in progress has a twofold rationale. First of all, there was difficulty for this policy in establishing its legitimacy. Never, in fact, has an environmental policy provoked so much debate and conflict (at least at the stage when perimeters were being defined), to the point where officials of the Ministry of the Environment radically altered the way it was to be implemented. The procedural to-ing

and fro-ing that ensued offered a good laboratory in which to observe the problems raised when environmental policies are applied in rural areas. Second, the decision to adopt a consultation process for composing the *Docobs* enabled us to study in context both the arguments developed by the actors and the sources of tension, and, on the other hand, the points of agreement that made it possible for relationships between the different categories of actors to change. In a word, studying a policy in progress makes it possible to shed light on the social dynamic that resulted from the process of deliberation.

Public Action, Normative Framework and Deliberation

How are we to understand these spaces for collective effort, oriented towards action and intended to produce a set of measures for managing the environment? In order to answer this question, we first situate Natura 2000 vis-a-vis current forms of public action. These then represent, according to the observations of many researchers, a veritable 'deliberative imperative' (Blondiaux and Sintomer, 2002). However, we show that the defining characteristic of the settings for collective action under Natura 2000 is that they are in a novel configuration, somewhere between prescription and deliberation. As we said in our introduction, our approach seeks to grasp as a whole what is constructed in 'local settings' and what is constructed on a wider scale, that of the social system and its institutions, each of these dimensions drawing on the dynamic of the other.

Taking as their starting point the notion that the state no longer has a monopoly over public action, many recent studies are concerned with identifying the variety among the actors who help make public policy. These studies are also interested in spaces for collective action as places of exchange and controversy that help to define problems as well as to solve them. Lastly, they emphasize the important role played by forms of negotiation and consultation. This change in the modalities of state intervention was analysed in 1996 as follows by Duran and Thoenig (1996: 582): 'The local, rather than the apparatus of state, is now the site where public problems are defined. . . . Having lost its hegemony, the state finds a *raison d'être* in establishing capacities for negotiation among a wide variety of actors.' In a certain way, the local is thus called upon by these forms of public action to restore consistency to the policy (Balme et al., 1999: 19). Collective action is thus institutionalized in specialized, more or less permanent 'settings' for consultation (Duran and Thoenig, 1996: 600), which some writers prefer to call 'forums' (Callon et al., 2001). It can therefore be analysed as part of a continuous process of construction that brings diverse actors together in a context of proliferating procedures.

At first glance, writing the *Docobs* would seem to belong to this context in which 'procedural policies' multiply. Lascoumes and Le Bourhis (1998: 39–40) write that such policies 'present themselves in the form of very general statements whose meaning remains to be created by collective deliberation. Their core content deals with the organization of local schemes intended to generate structured interactions, ways of working together and the formulation of collective agreements.' From that point of view, the use of such procedures leads to a shared development of localized, pluralistic public action, as opposed to actions described as 'substantive', in which a centralized authority sets the desired aims and the means by which they are to be achieved.

Of course, the *Docobs* are jointly produced through debates involving many actors (locally elected officials, government representatives, farmers, environmental associations, hunters, fishers, foresters and so on), but public authorities retain considerable weight, at least in framing and validating decisions. In fact, the rules governing local consultation procedures are broadly set by the central administration, the Diren (Regional Environmental Authorities) and the institutions responsible for the *Docobs*. All the way through this research project, we observed the establishment of administrative frameworks for consultation, to which the actors involved in drawing up the *Docobs* were obliged to conform. Indeed, the measures designed to realize the objectives of the HD had to be put into effect under threat of financial sanctions. From the point of view of many experts who took part in the procedure at the national and European level, this prescriptive character was a good thing, in that it enabled perceptible progress to be made in refining the management measures for Natura 2000 sites and in coordinating experience.

The *Docobs* are thus written by creating a meeting-space in which the logics of overarching policies and local histories, and the dynamics of localities and networks come together. To put it in Jamie Lorimer's words, this way of understanding biodiversity is in contrast to the disembodied character of official definitions. He suggests it be defined as 'the discursive and material outcome of a sociomaterial assemblage of people, practices, technologies and other non-humans' (Lorimer, 2006: 540). We may thus consider 'local settings' an essential part of a means of producing rules and regulations for the management of space in the name of preserving biodiversity.

These 'local settings' do not derive their legitimacy solely through the way in which they function. They interact on the national and European level with other components of the HD structure. The HD is the vehicle for a *referentiel* in the sense defined by Muller and Surel (2002), namely a cognitive framework within which an interpretation of the world is constructed.⁶ This framework rests first of all on the idea that since the erosion

of biodiversity is a consequence of technical and economic development, it has become emblematic of the dangers facing the environment in what Ulrich Beck (1992) has called the 'risk society'. Science occupies a key position in this *referentiel*, as a result of the need to produce forms of knowledge that will serve to illuminate public policy.

As we explained in the first part of this article, the preservation of biodiversity has been gradually imposed on governments as a result of major international negotiations and the topic has gained legitimacy over the past 10 years as forms of public action have developed. The 'national strategy for biodiversity' proposed by France is a sign of this development. It calls for an unprecedented degree of political mobilization, 'so that policy-makers, actors and citizens all recognize the value of living things, whether rare or common' (Bachelot, 2004). The fact that this concern has been introduced into the discourse of the majority of institutions and organizations representing users of the rural space shows the extent to which environmental management in the name of preserving biodiversity has emerged as a norm for action, exerting increasing influence on the way local consultation around writing the *Docobs* proceeds. This dynamic is inscribed in the framework of a transformation of legitimate forms of knowledge, as analysed as follows by H. Tovey: 'They make available the possibility of talking about knowledges in the plural, as diverse and differentiated, rather than in a singular identification of knowledge with science, and point to relations between different forms of knowledge as an aspect of development that needs more attention' (Tovey, 2008: 188–9).

The process of dialogue that characterizes the way the *Docobs* are drawn up locally must therefore be understood with due regard for this context, which puts its mark on the 'local settings'. In these spaces for debate we see a combination, in varying proportions depending on individual circumstances, of consultation, prescription and the impact of widespread adoption of the referential framework of biodiversity.

How Are We to Understand Local Settings?

The local settings in which the *Docobs* are discussed have two aims:

- To work out together the forms of knowledge that will make it possible, at every Natura 2000 site in France, to translate into specific measures the goal of preserving biodiversity.
- To draw up agreements that involve enough partners to give the *Docob* legitimacy.

'Local settings' are thus contexts for interaction, with their procedures, institutions and debates among actors. They produce forms of knowledge

and standards that provide a framework for practices on the ground. In other words, they are where the species and habitats that need to be preserved are identified, and where this or that use of the spatial environment is encouraged or discouraged. The task carried out on local settings is thus one of classifying spaces, species and practices, in the light of norms for preserving biodiversity. These norms bring the actors together through a series of commitments that define a regime of obligations and forms of legitimacy. In order to characterize this deliberative space and the content of the exchanges that took place there, we positioned ourselves within a pragmatic sociological framework, whose content, and the use we make of it, needs to be described.

References made by sociologists during the 1990s to the concept of 'setting' are broadly linked with the development of approaches described as those of interactionists and pragmatists, who put action at the centre of their analysis and focus on practical activities in situ. These approaches belong to a kind of research 'third way' between individualism and holism, which poses the question of the foundations of the social bond, forms of agreement and cooperation between human beings. Dosse (1995: 12) described a 'pragmatic turn' in the social sciences, which 'accords a central position to meaningful action and rehabilitates intentionality and actors' justifications in a reciprocal determination of doing and saying'. It deals with procedures, questions about cooperation and agreement and the grammar of action by observing the actors very closely. The pragmatist approach thus focuses on public action in the course of construction through the creation of tools, rules or conventions, and it foregrounds the work of individual or collective actors as they employ repertoires of argument (Cefaï, 2002). It is clear that pragmatist approaches have found a 'ready made' subject in the establishment under procedural policies of spaces of deliberation based on territory, in which the actors confront each other directly.

The use we make of the notion of a 'local setting' belongs to this set of viewpoints. Mutual acquaintance, membership of a local community and the opportunity for face-to-face contact are all elements of the metaphorical use of the word 'setting', all the actors being in the presence of the others and presenting their opinions in the setting of local debates in the course of which different principles, interests, world-views and justifications confront each other. The idea of a setting is derived from the work of Erving Goffman, for whom it represents sociology's distinctive unit of observation. It originates in the observation of face-to-face situations which place individuals belonging to egalitarian societies in situations that are indeterminate, in contrast to what happens in hierarchic societies in which the places and ranks are clearly assigned (Martuccelli, 1999: 443).

For Goffman (1973: 26), social life poses the great problem of organizing appearances in which both the power of rules and the possibility of disorder are in play. His definition of interaction therefore emphasizes corporeal co-presence: 'By interaction, we understand, more or less, the reciprocal influence that the partners exert on their respective actions when they are in one another's immediate physical presence.' However, by privileging the face-to-face aspect, this definition ignores the essential characteristics of local settings: their historicity and the existence of a context. That is why we tried to study the exchanges between actors in a relationship of co-presence, but without omitting the role played by institutions and the various forms of social determination in the construction of reality (Berger and Luckmann, 1996).

The diachronic study of 'local settings' makes it possible to restore the interactional dynamic. Our analysis of the meanings to which the actors refer situates us within a comprehensive, Weberian approach, insofar as it involves a consideration of the plurality of values and the complexity of the various rationalities in play. From this point of view, we assume that everyone is able to draw on different principles or registers of action, which they modify 'by passing through successive settings . . . whether under pressure from the schemes they encounter, or from other people, or according to their inner predisposition' (Dodier, 1993: 75). An actor on a local setting may thus move from a principle of interest to one of conviction that determines different forms of commitment. Our pragmatist approach also involves paying special attention to the different ways in which natural objects, which are at the heart of the debates surrounding conservation of habitats, play a part in reconfiguring social bonds. They bring people footholds and reference points from which to construct collective points of view, agreements and commitments.

As we explained earlier, our approach seeks to apprehend in conjunction what is constructed in interactions on local settings and what is constructed on a broader scale, namely the social system and its institutions, both these levels being nourished by the dynamics of the other. In brief, our framework for analysing 'local settings' employs, in succession or concurrently, different approaches to clarifying (without claiming to be exhaustive) the complexity of reality. As Schnapper (2000: 1) writes: 'It is from bringing together, on the one hand, the results of research and on the other, more broadly-based thinking about our society insofar as it is a specific historical society, that sociological understanding draws its originality.'

In order to study the 'local settings', we attempted to observe their activity at first hand, using qualitative surveys at 10 sites, spread over four regions of France. We analysed as precisely as possible the ways in which these different spaces for debate (such as the 'steering committee'

[Copil], and the working groups) functioned and developed. In order to do this, we attended various meetings as participant observers, but did not take part in the discussions. We then analysed the form and content of debate, trying to capture the process of interactions that took place. We were especially interested in the way the actors participating in the debates defined themselves and presented their practices, in those who remained on the sidelines, and lastly, to those who were absent altogether. We studied the subjects addressed, the arguments put forward and the conflicts and agreements arrived at under the effect or otherwise of a process of collective learning.⁷ Lastly, we conducted interviews with a certain number of actors whose role and points of view seemed crucial to the way the local settings functioned. Our work of comparative analysis brought out the singularities of the procedures and organizations that were present at each site. But its limits lay in the heterogeneity of their configurations, which made a more thorough-going comparison difficult. It is also important to note the difficulty we had in taking into account all the elements that made up the local settings. They were created by a combination of public dimensions and those that we describe as informal activities. The 'local settings' that we observed were not reducible to a single time and place, because they came into being gradually and were formalized to differing degrees. Their structure was not fixed in advance and it was liable to change if there was an unexpected abundance of activity. In short, the 'local settings' combine activities carried out in a formal setting and other, less visible activities that took place on the fringes of meetings and brought many actors together.

In parallel with our surveys on the ground, we used a quantitative approach at national level to obtain large-scale information matching the diversity of existing configurations on the French sites. In this way we built up a database, using a postal survey covering the way in which the first 900 documents of objectives were written, in order to define the categories of the actors and institutions involved, as well as the tools and competences brought into play.

Our surveys confirmed that the way 'local settings' worked was to a great extent determined by a framework defined on different levels (national and European). 'Local settings' thus appeared to be procedural spaces, caught up in bureaucratic assumptions that permanently create tension with those of writing a text collectively. This situation profoundly affected the forms deliberation took, and had a bearing on the modalities of representation. But this way of formatting according to a set of administrative procedures and the scarcity of available financial resources did not mean the absence of deliberative activity, which could take a variety of forms. It was within working groups with few people (no more than 10)

that discussions were most in-depth. Contrary to Copil, these unofficial working groups were privileged areas for debate where different technical cultures came face to face, confronted one another and came to terms with one another (agricultural technicians, foresters, hunting federations, etc.). These forms were also determined by the ecological, political, economic and social characteristics of the sites: their size, context and history and the issues involved. Nevertheless, the particularities of each site also arose from the type of work carried out by the site operator and his or her project leader. The operators were designated by the Diren in terms of their social legitimacy (those appointed were usually already managing the site in question),⁸ and their role was to carry out complex tasks, mobilizing, producing and collecting biological and socioeconomic knowledge, recruiting people, organizing information and dialogue, writing and proposing management measures. The surveys carried out in the various regions show that the intensity of debates in working groups was largely determined by the assignment officer's ability to encourage dialogue, provide mediation between various actors and create the climate of confidence indispensable for exchanges to begin.

An analysis of the modes of collective action within the various spaces for debate produced results that differed from site to site and from region to region, ranging from a dynamic of co-learning to a kind of simulacrum of consultation. In the Provence Alpes Côte d'Azur region, and in the marshy area around Poitiers, where there were major environmental issues and where ways of working together seemed to be firmly established, we noted the existence of a collective dynamic that led to reciprocal forms of learning, blurring the boundaries between the different camps involved. In some cases, confrontation between the actors was marked by mutual distrust between individuals or organizations already on opposing sides in conflicts arising from the use of space. In the Nord-Pas-de-Calais, for example, the fragmentary character of natural areas, and the predominance of intensive agriculture, which covers almost 70 percent of the region, in conjunction with a history of serious conflict between the representatives of private forestry and scientists during the inventory phase, all helped to create a climate of suspicion and hostile relations between the protagonists that did little to foster sustained communication or forms of cooperation.

Observations carried out at a number of sites show that consultation has no reality unless the actors agree to share the same discussion space. Furthermore, agreements and commitments around the management of biodiversity demand a trust and a willingness to work collectively that are far from automatic but have to be built up slowly and patiently. All the more so since the notion of biodiversity often appears to local actors as an abstract concept, which takes form only through being named and represented by experts.

Trust was built up between the actors involved in writing a *Docob* by putting to the test forms of knowledge from natural history; this was done by using a critical approach, and by working out together the content of the management measures proposed. There was discussion, for example, about the pertinence of the goal of preserving habitats whose heritage value had been hierarchized by the operators, and debate around practices that were favourable or unfavourable to them. Certain topics aroused sharp and interesting controversy. The process of defining the outlines of sites and where necessary correcting them was the occasion of rich exchanges, as was the precise definition of the ways in which the habitats of species might be disturbed, for example, by hunting. Lastly, the actions proposed by certain operators with the aim of restoring habitats were frequently the occasion for heated debates with local users. These exchanges brought together the diverse forms of practice and knowledge that had a bearing on the technical initiatives that were proposed.

However, our analyses showed that cross-fertilization between naturalists' knowledge, technical and professional knowledge and local knowledge was limited. In fact, the diversity of knowledges brought into play, and their inscription in complex and extensive technical and scientific registers did not make their appropriation by the different actors any easier. This has had the effect of entrenching the asymmetries between the different participants, especially in the pilot committees, rather than allowing each of them to assert their specific relationship with natural objects. This confrontational process between different knowledges may have been productive in the context of the working groups, but it has none the less remained limited, especially as far as local knowledges are concerned. Their recognition often amounts to no more than good intentions, since it implies the need to set up real debate requiring time and specific skills. Project leaders therefore turn more willingly to experts, especially since local knowledge is often pragmatic and non-verbalized. (Alphandéry and Fortier, 2005; Fortier, 2005). This conclusion is not limited to the situation observed. 'Like many participatory initiatives, it contains within it something of a paradox: scientific definitions and expert opinions . . . are found to be insufficient to sustain important public policies, and so public support and representations are also thought to be needed. Yet these representations are often elicited in the very forms that are simultaneously seen as being inadequately robust' (Ellis and Waterton, 2004: 101).

Conclusion

The phase of the application of the HD that we have just described corresponds with the implementation of a public action based on deliberation among a large number of agents and their ability collectively to

organize and adjust their different activities with regard to the aims of conservation on the national scale (Pinton et al., 2007: 201). That is why we focused this text on the 'local settings', which were the favoured framework for creating interactions, without neglecting to place them within an overall view of the implementation of the HD and of the normative framework for biodiversity that inspired it. In conclusion, we try to answer the following question: what does the study of this directive's implementation contribute to an understanding of environmental policies?

Instability and Procedural Proliferation

A chronological analysis of the different settings in implementing the HD reveals the non-linear and sometimes almost chaotic nature of its local application. The instrument issued by the Ministry of the Environment foresaw the production of a national list of sites, making up the French Natura 2000 network, and that at each of them a document comparable with a management plan would be written. However, for the reasons set out in this article, the HD was not implemented according to the published timetable or in the forms anticipated, and there was considerable overlap between the different phases. Therefore, the work of writing the *Docobs* began even before the definitive list of sites was complete. It was reflected at each site in a proliferation of administrative procedures whose contents differed from one region to another. In particular, it fell to the Diren (Regional Environmental Authorities) to set procedures for choosing the site operators, sites and to define the process of writing the *Docobs*. Lastly, the changes introduced by the new law on rural development, passed in February 2005, gave local organizations increased powers over writing the *Docobs*, and introduced a new measure, the 'Natura 2000 Charters', which allow local actors to be involved without having to meet stringent obligations. These developments once again attest to the instability of procedures and show the interest in monitoring the HD as a 'work in progress', gradually putting in place the framework and methods of public action around biodiversity.

More generally, the implementation of the Natura 2000 network required a complex system, working on different levels, from the local to the national, which was subject to many modifications. One could offer many examples illustrating one of the characteristics of the HD, namely that it generated an impressive amount of institutional and procedural investment while at the same time this piece of public policy was not necessarily backed up by the financial resources required to pursue its objectives.⁹ Nevertheless, having monitored the HD over 10 years we are able to suggest that this proliferation of procedures and the uneven implementation of its various settings had no connection with 'inefficiency' on the part of the government. These were the conditions under which the HD was implemented. An analysis of these various adjustments shows

the specific features of a policy for the conservation of biodiversity that has to bring together scientific and social thinking, prescription and deliberation, and local and global considerations.

This approach offers keys to understanding the features of environmental policy. We would claim that in situations of uncertainty, in which diverse actors are dealing with complex subjects, environmental policies are liable to exceed anticipated boundaries and time-frames, while at the same time producing a multiplicity of procedures. Hence the value of studying a piece of public policy 'live'. Aggeri's work, carried out in response to different examples of collective environmental action, confirms our own observations: 'A static, restricted conception of public policy, which is more or less acceptable in stable contexts in which roles do not change greatly, is no longer tenable when one is working in settings of great uncertainty, in which the sources of pollution, the technologies and the objectives of the action are not known from the start' (Aggeri, 2001: 22).

Local Settings for Biodiversity and the Analysis of Public Policy

The adoption of the *Docob*, a tool for collective action, was a product of this dynamic, characterized by sources of conflict but also of novel forms of cooperation and the search for compromise. As part of our work in the Grenat network, we have analysed this dynamic, carrying out qualitative surveys on 10 sites, spread over four regions, and a quantitative survey of the whole of France, on how the *Docobs* were written. In this approach to the HD our aim was not to measure or evaluate the outcomes of public policy, but to analyse the way the actors occupied the spaces for debate provided by local settings, as they tried to reach a compromise between different ways of justifying the use of space. Exchanges of skills and experience, and the collective production of knowledge to which they lead, also proved to be essential elements if the actors involved were to take possession of the notion of biodiversity by translating it into local measures for managing the environment.

In this connection, the dialogue undertaken at 'local settings' makes possible, in its cognitive aspects, a series of operations that contribute to the implementation of the HD: codifying, categorizing, reducing uncertainty, zoning, making visible and lastly, building up intermediary forms of knowledge and networks in relation to natural objects. These operations are facilitated by employing various instruments of public action used in writing the *Docobs*, with the aim of formalizing and putting into circulation the knowledge possessed by the different actors vis-a-vis natural objects. Maps, studies, surveys, habitat-notebooks¹⁰ and lists all fed into geographic information systems (GIS) whose purpose was, by reconstructing a complex reality, to create confidence and to come to an accommodation at

Natura 2000 sites. More generally, the approach via these instruments enabled us to make a deeper study of the territorial dimensions of environmental policy. These instruments in fact contribute towards delimiting territory and in tracing the relevant boundaries of the content that a collective body wishes to give to the question of biodiversity; lastly to define it and thus make it an area for investment that recognizes the different ways in which the actors involved make use of it and their diverse values. Via the example of areas of public action, we coincide with the analysis offered by Lascoumes and Le Gales (2004: 14), who are of the opinion that instruments of public action cannot be understood in purely technical terms, and cannot be dissociated from the agents who make use of them. Our field research, for example, revealed the important role of mediation played by the actors who used cartography for the purpose of bringing together the knowledge held by naturalists and forms of land use.

In addition to their cognitive dimensions, 'local settings' are political spaces since they are the site of debates on subjects such as the coexistence of social groups and the legitimate forms of power. One may see 'local settings' in their formal and informal aspects as procedural, territory-based institutions which provide actors with the essential elements to support the functioning of a public policy the depths of whose complexity we explored. Local settings perform certain traditional functions like the production of standards and the categorization of spaces and species. Most important, they transfer data about nature, and standards, to a local context and enable actors to orient themselves among the complex issues surrounding biodiversity. This combination of functions makes them crucial institutions for environmental policy-making. 'In the past, institutions shaped practices and representations more directly, while today they are structured more around intermediary bodies with informational resources available to serve the needs of action, co-ordination and monitoring' (Bèzes et al., 2005: 298). Nevertheless, a series of essential questions remain for all forms of procedural and localized policy-making. Who is represented in these local settings and who is not? Can their presence in the structures of deliberation come about only via institutions or should we welcome individuals representing only themselves? How does environmental management affect property rights? What is the role of locally elected officials in this type of territorial management and how do they define the common good?

'Local settings' have never fully established their legitimacy, notably in respect of the type of representation on which they rest. One may therefore wonder about the nature of the agreements on which the *Docobs* are based. Do they only involve a series of compromises between competing interests or is the legitimacy of the concepts of the various actors recognized? How do the actors, especially those who were not represented in local settings, feel themselves engaged by the agreements?

These 'local settings' have a technical, political and social function, but as we have seen, their autonomy is limited by the prescriptive dimension of government action, arising from the necessity to produce results, set out in the directive. While the resources and authority of the Ministry of the Environment may be limited, at the same time, the obligation to apply international agreements and EU legislation gives it the means to act prescriptively. The autonomy of 'local settings' is also limited by the fact that they are part of an overall dynamic marked by the creation of a 'world-view' based on safeguarding nature. Hence the need to consider local, national and supra-national factors all at the same time, while trying to understand how a political climate for preserving biodiversity is created by these different levels in combination.

The HD thus provides an excellent case for observing the development of forms of public action that is local, horizontal and concerned with environmental problems. The 'step-by-step construction of a local common good, ensuring the coherence and legitimacy of its decisions' also applies to other forms of environmental public action (Lascoumes and Le Bourhis, 1998: 40). But in addition, our work on the HD enables us to define certain characteristics of environmental policies. First, they usually deal with complex subjects, with imprecise boundaries and involve fluid and disputed forms of knowledge. Second, the way they are constructed for public action mobilizes heterogeneous actors (locally elected officials, representatives of government, farmers, environmental associations, hunters, anglers, foresters and so on) and involves compromises between different principles, in settings that vary from the local to the global. Lastly, we must stress the importance of the cognitive issues raised by environmental policies: science plays an essential part in this process, but its lacunae make it dependent on local knowledge and expertise. These characteristics are not peculiar to France. The Belgian sociologist Leroy (2001: 207) has shown that public environmental policy has changed in several EU countries, and presents a series of features similar to those we encountered in connection with biodiversity.

A New Way of Administering Nature?

One can thus use the case of Natura 2000 to ask whether the conservation of biodiversity has genuinely become a public cause, capable of creating new ways of sharing powers and rights in the administration of the environment (Pinton et al., 2007). The different actors involved, whether or not they take part in the procedure, express very different opinions on the spirit of the directive. Nevertheless, a collective experience has taken the place of the initial dramatization of the stage of listing habitats and species and connecting these data with human activities. From this point of view, conservation of biodiversity has gained the status of a genuine public issue in the management of rural areas.

From this point of view, we can make the implementation of Natura 2000 an example of the way¹¹ the society reflects on the treatment of the environment. Though not completely new – the writing of the Chartes des parcs naturels régionaux (Charters for Regional Nature Parks) is another example – this experience is incomparably broad, both in its scale and the complexity of the questions raised. What is new, from the point of view of environmental administration, lies in the successful use of standardization tools, which, whether SIGs (systèmes d'information géographique) or other systems for constructing databases, provide a framework for the work of naturalists, and increasingly, for the management of local organizations, thus offering a new reading of natural subjects on a series of scales. For that reason, one may see these twin tasks, on the one hand, of gaining acceptance and, on the other, of writing collective rules and defining forms of knowledge, though incomplete, as a genuine laboratory, both ecological and social, which brings together new forms of technological and representative democracy in rural areas.

One may say this all sounds very fine, but says nothing about the effectiveness of these measures that demand long deliberation, at the very time that this research enabled us to observe that the French government was already struggling to meet its financial commitments. If by effectiveness we understand the ability to meet the objectives set out in the HD (whose methods of evaluation are very controversial), then the hour of reckoning has not yet arrived. But we can also claim that identifying the processes that allow the groupings set up to create a *Docob* to function is a necessary setting, which comes before we can employ the notion of effectiveness in any way. To use it proves, in fact, highly complex, since we have to bring together all the ecological, political and social dimensions. From this point of view, the intellectual and political work carried out on the local settings and the connections it is able to make among interdependent actors¹² are a pledge of future effectiveness.

Notes

1. Under the Convention on Biological Diversity, biological diversity is defined as the 'variability of living organisms of all origins, including, among others, terrestrial, marine and other aquatic ecosystems, and the ecological systems to which they belong. It includes diversity within and between species, as well as of ecosystems.'
2. The material presented here is the result of work carried out over several years by the Grenat (Research Group on Natura 2000) network, on the implementation of Natura 2000 in France (Pinton et al., 2007). Grenat was composed of F. Pinton, P. Alphandéry, J. P. Billaud, C. Deverre, A. Fortier and G. Géniaux.

3. 'Natural habitats means terrestrial or aquatic areas distinguished by geographic, abiotic and biotic features, whether entirely natural or semi-natural' (article 1.a of the HD).
4. Atlantic, Continental, Mediterranean, Alpine and Macaronesian (Azores, Madeira and Canaries) regions.
5. Note the decision by the Ministry of the Environment to privilege the contractual approach. Nevertheless, the actors involved are not required to sign a contract, while the government is under an obligation to present results to the EU.
6. According to Muller and Surel (2002: 31), public policy is not geared towards solving problems but towards 'creating a new representation of problems that puts in place the socio-political conditions of their handling by society, and in that way structures government action'.
7. According to Hatchuel (2002: 105), 'There is no action that could be considered the pure application of prior knowledge. Every action reconstructs the forms of knowledge necessary to it. There is no action except through mutual learning between actors.'
8. Our work has enabled us to identify three main groups of operators: geographically based bodies (regional parks, local authorities, labour organizations, etc.), voluntary associations involved with the environment (especially regional bodies concerned with the protection of natural areas) and forestry interests (CRPF, ONF) (Pinton et al., 2007).
9. Very few resources have been allocated to taking the work forward, that is to say, to contractualizing management tools: using structures already set up for agricultural areas (agro-environmental measures and contracts for sustainable agriculture) and the use of existing budget lines for non-agricultural contracts (life programmes and funds for managing natural areas).
10. The habitat-notebooks, deposited in the Museum national d'histoire naturelle by the Ministry of the Environment and the Ministry of Agriculture, were intended to give a picture of scientific knowledge and to identify management features for each habitat (annexe I) and species (annexe II) that were of common interest over the whole of France.
11. Giddens (1984: 19) believes that 'reflexivity conceived as the systematic and regularised use of information to orient and control the reproduction of social systems is a characteristic feature of modernity, and it is precisely in this reflexivity that the social sciences insert themselves inextricably and irreducibly'.
12. Mougenot (2003: 124), taking up a line of thought developed by M. Mormont, shows that intermediary structures such as local settings perform a triple function that is critical to environmental management: cognitive, regulatory and concerned with identity.

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