## Learning and organizational framework the case of Gravina in Puglia, Italy

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# LEARNING AND ORGANIZATIONAL FRAMEWORK
# THE CASE OF GRAVINA IN PUGLIA, ITALY

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## ABSTRACT

This contribution illustrates a research carried out in Italy and focused on the planning of the natural protected area of "gravina" in Gravina in Puglia. Basically oriented to provide the local institutions and the involved communities with an operating support, this research aims at reflecting on the potentials and the difficulties of the co-learning approaches in environmental planning contexts and on the compatibility of these approaches with the existing institutional environment.

In order to achieve stronger cohesion on the issues of environmental safeguard and to recognize the different levels of preservation/use of the "gravina" environmental system (and its surroundings), the planning process needs to pay attention to coordination of actions and decisions carried out by different actors (organizations belonging to different management levels, associations, local entrepreneurs, private citizens, or, finally experts working on the plan of the protected area). Within this coordination process, which gives relevance to knowledge and to the knowledge actors, the organizational learning perspective becomes important because of the link between the strategies oriented to environmental systems planning and feedback produced by the interested organizational contexts.

Referring to institutional contexts characterized by relational networks with different degrees of formality, this paper illustrates the research goals of developing conversational learning structures which, penetrating the formal planning process, can give rise to opportunities for reflecting on planning actions. The attempt is to supply actors with means, time and space for communicating and reflecting on the gravina environmental perspectives and on existing practical opportunities to put these perspectives into action.

Finally, focusing on the relational framework and on its organizational components, the proposed contribution analyses the role of the "communities of practice" and the opportunities they have to build a relation with more formal organizational entity.

## 1. INTRODUCTION

In the attempt to use, operatively, the concept of collaborative learning in spatial and environmental planning contexts, many experiences have shown up the existence of a large gap between actors' ability to generate collective knowledge and the capability of utilizing that knowledge during the implementation process. That gap is often evident in the discrepancy between what gets implemented and what was planned.

In reality, in uncertain and complex situations, the planning activity cannot be regarded as a linear process moving through stages of agenda setting, decision making and finally, implementation; the planning process seems to be more and more an interactive and circular process that supplies reflective mechanisms, in order to re-frame the context, to reduce the intensity of conflicts, and to provide programs with a more solid "implementation structure" (Hjern and Porter, 1981). The planning activity often seems to emerge as a "process of collective surveying which is carried out through transactions and conversations between many actors in cooperation or competition or, more often, with mixed interests" (Lanzara, 1993).

In accordance with this, the analysis of learning processes and the informative/cognitive flows, which characterize interactions within spatial and environmental planning contexts, supply a relevant contribution for decision making support in complex and dynamic organizations. Indeed, the link between the decision and the organizational performance is important, considering this performance as an effect of the learning of involved actors.

Nevertheless, in the spatial planning context, many experiences with a collaborative learning approach, seem to have neglected the existing organizational structures, omitting to emphasize and take advantage of their potentialities. The experiences in the "laboratories of communicative planning", for example, are very interesting for analysing knowledge transactions and generative learning processes in the groups but they do not give suggestions about the way in which the groups should work outside these laboratories. Unlike what happens in the real world, in the groups the relations of power are quite explicit, and it is possible to hypothesize the existence of equalities between the members (Healey, 1997). The efforts that a group make in order to learn and transform its cognitive structures might not have effect in the public sphere where the plurality of actors presents different relations of power (Schön and Rein, 1994). According to Bryson and Crosby, the extension of the interactive decision-making, from the "arena" of the laboratory practices to the public sphere, is a strategic activity, "a deliberate effort of innovation" carried out in "a world of unequal relationships of power", relationships which are dispersed between a plurality of organizations and interests (Bryson and Crosby, 1993). For these authors, power is much more than what is manifest in the " games of interest "; it is also enclosed in the systems of rules and behaviours, in the flows of resources, in the opinions and in the ways people use to communicate.

Yet, the "theory of action" and many other "organizational learning" theories seem to pay more attention to the psychological aspects of learning and to the clinical-therapeutic characteristics of facilitation interventions (which are made by external consultants) without regard for the structural and organizational dimension of the learning processes. Referring to experiences in "classrooms", without questioning their compatibility with the current institutional environment, facilitators often disregard the organizational cultural dimension which is, however, crucial in order to appreciate the dynamics of social-cognitive interactions (Lanzara, 1993). These dynamics, in fact, are the peculiarity of the world outside the "classroom".

This paper refers to a research[1] which aims at reflecting on the potentials and the difficulties of the co-learning approaches in environmental planning contexts and on the compatibility of these approaches with the current institutional environment. Essentially, the research aims at inferring: i) the organizational and structural conditions which could facilitate and support the generation of "action oriented knowledge" in multi-organizational contexts, where many groups are informal and insufficiently structured, ii) the way in which, during processes of interaction and in complex situations, the individual and organizational actors produce cognitive transactions, generate knowledge and, consequently, invent and construct new systems and schemas of action.

Starting from a case study and referring to its institutional context characterized by relational networks with different degrees of formality, this paper illustrates the research goals of developing conversational learning structures which, penetrating the formal linear planning process, can give rise to opportunities for reflecting on planning actions.

## 2. SUPPORTING THE INSTITUTIONALIZING PROCESS FOR A NATURAL PROTECTED AREA: THE "GRAVINA" IN GRAVINA IN PUGLIA

The case study regards the institutionalizing process for a natural area in the Municipality of Gravina in Puglia (Italy), preliminary studies of which have been carried out by a team of experts in charge of the institution of the natural park. In order to support the regional government protection programme for that area, these experts worked especially to define the environmental system and to propose an environmental action plan.

The environmental system is constituted by a "gravina" and by its surrounding area of interest. "Gravinas" are erosive hydro-geologic channels which represent the most important geo-morphological evidence of carsism and extremely important natural environments in Southern Italy. Some important ecological niches and peculiar habitats are found inside "gravinas", due to peculiar microclimatic conditions. Important historical value has to be added to the naturalistic importance, because of the presence of archaeological sites. Gravinas are in fact frequently the seat of first human settlements, which generated the still existing urban centres. The presence of settlements, the presence of high environmental values, and the presence of historical and archaeological emergencies, make the management of gravinas area complex and uncertain and generate several questions regarding the

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relationship between land-use and conservation, giving rise to an interesting case of environmental conflict. The community is in the middle of this conflict; within the community, interests are oriented towards incompatible land-use, depending on the fragility of existing naturalistic resources.

The expected stronger cohesion on the issues of environmental safeguard and the expected different levels of preservation/use of the "gravina" environmental system (and its surroundings) depend strongly on the actions and behaviour of the local actors. In fact, the context is characterized by a combination of practices that the environmental action plan aims to modify; new organizational relationships and adaptations need to be developed to deal with these changes.
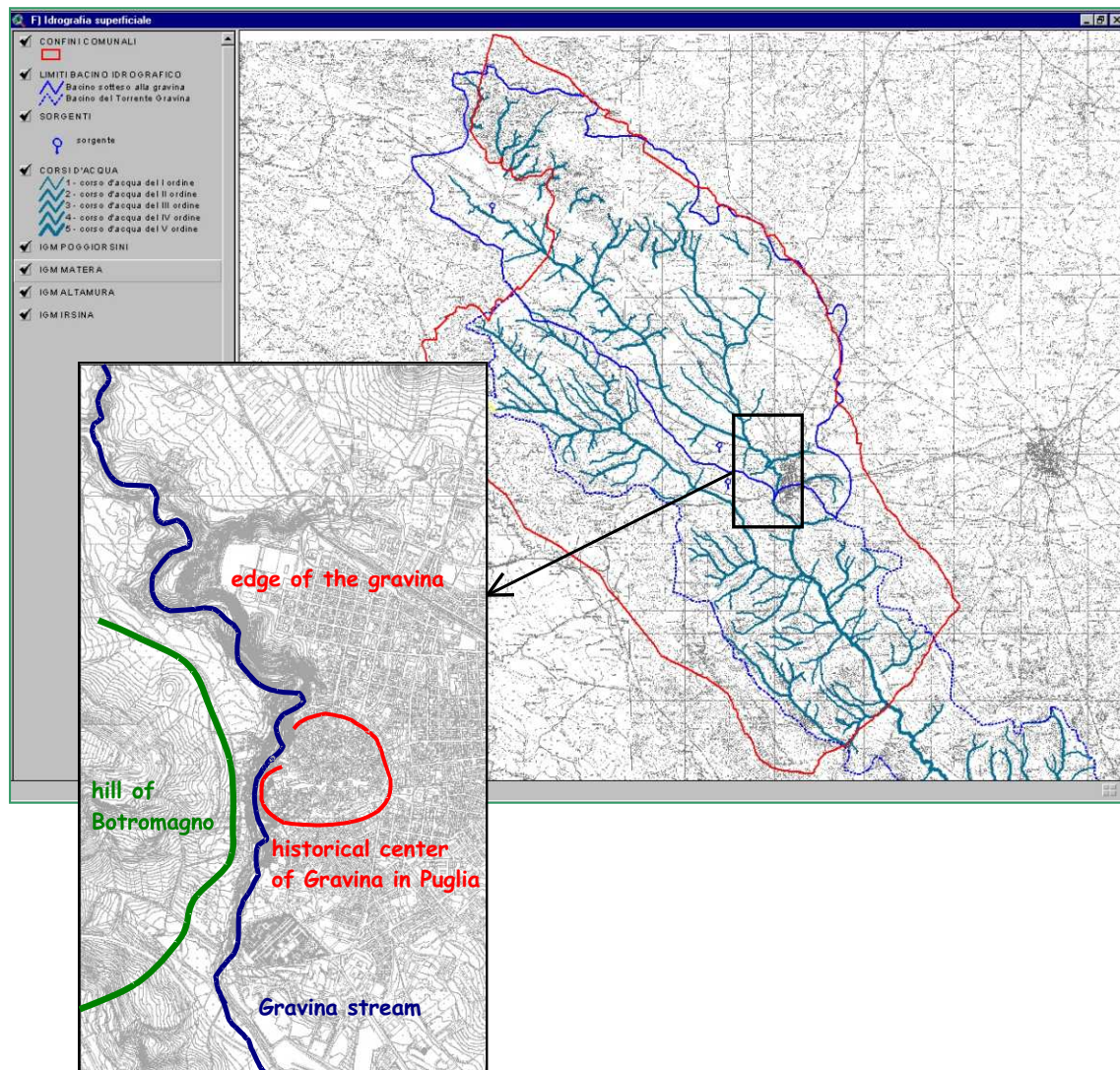


Fig. 1. The environmental system of the gravina in Gravina in Puglia.

At the moment, a research team is working to provide the local institutions and the involved communities with a support operating during the institutionalizing process of the ANP (Natural Protected Area). In fact, this institutionalizing process, which is expected from the Regional Law n. 19/97, risks being delayed because certain conflictual situations have emerged.

The institutionalizing process of a ANP could be considered an inter-organizational process since the management and control of its natural resources is scattered among a variety of agents. The legal context of the Gravina area is multilayered and complex, beginning with a variety of owners (private, corporate, and governmental, all having different incentives), and including a variety of interlinking rights and duties among them, and then including many types of regulations (water, land use, wildlife, archaeological

emergencies) implemented by a variety of government bodies. Legal definitions of rights and responsibilities have always been somewhat fluid and dynamic, and may be growing increasingly so.

In this context, great support can be given by experiences collected in the O*rganisational Learning* domain, particularly for the comprehension of collaborative dynamics enabling or impending communication, mutual learning, and transformation of individual knowledge into collective and oriented to action knowledge.

However, the transformation of the relationship between the natural environment and the settled communities, which could arise from these communicative and learning processes, require reflection on the organizational aspects of the process itself.

Indeed, from an organizational point of view, this operating support to the institutionalizing process consists in coordination of decisions and actions of many actors: government organizations at different levels (regional and local), associations, agencies, local developers, citizens and the experts involved in the institutionalizing process. If the institutionalizing process is to be achieved with a co-learning approach, it must be done in this complex institutional context.

## 3. COLLABORATIVE APPROACHES AND INSTITUTIONAL ENVIRONMENT

Collaborative (and organizational) learning is one approach that makes, as its primary objective, changing behaviour by improving the use of information by different groups. In general terms, this refers to the capacity of one group to assess the results of their efforts, rethink how they go about their tasks, and use new ideas to change established practices (e.g. Huber, 1991). Underpinning the concept is the recognition that people learn through active adaptation of their existing knowledge in response to their experiences with other people and their environment. Therefore, the eco-system management in a protected area depends on the actors' ability to develop new inter-organizational relationships.

In an attempt to support planning and management of natural resources, co-learning approaches can also create a wide range of potential coordination problems and new opportunities for conflict. In many respects, the co-learning approach presents a classic collective action problem: there are often greater incentives not to cooperate, share information, or develop consistent policies (Olson, 1965; Polanyi, 1966). Here three of these problems are pointed out.

Firstly, the programs and plans of the planning agencies, of the private and public associations, and of the government (at all levels) are subject to different statutory and budgetary responsibility. Each program and plan will also have different capacities for action such as regulatory authority and technical expertise. Accordingly, the institutional program for the ANP, which presumes a collaborative effort in changing responsibilities and priorities, alters the capacity for action because it will require institutional changes that can create political conflicts. In the case of the gravina area, for example, such conflicts between two different levels of government (of the Apulia region and of the Bari province) risk delaying institutionalization of the ANP.

Secondly, the involved organizations, associations, and communities of practices may need to change their policies and practices in order to implement a co-learning approach. Accordingly, it is reasonable to expect some regional and local officials as well as private and non-profit organizations to resist implementing policy changes that run counter to other interests of theirs. Since a new program in managing natural resources involves new collective practices to which actors need to adapt, the capacity for action of the individuals and of the "communities of practices" is altered because of the conflict between old and new practices.

Finally, sharing information and coordinating programmatic efforts can be time-consuming and requires a significant commitment of organizational and personal resources. Unless people perceive there are benefits associated with these costs, coordination efforts are likely to meet resistance. In the case of the ANP program, the main problem to face is that the actors (individuals, groups and organizations) operate in a situation characterized by limited rationality and cognitive complexity which come from lack of both information and ability to see the long-term effect of their action (Senge, 1990; Lanzara, 1993).

In short, from an organizational perspective, the collaborative learning approach to the institutionalizing process of the ANP can be seen as an explicit attempt to build, manage, and maintain inter-organizational networks (of public, private and non-profit organizations).

Input from the Regional Law 19/97

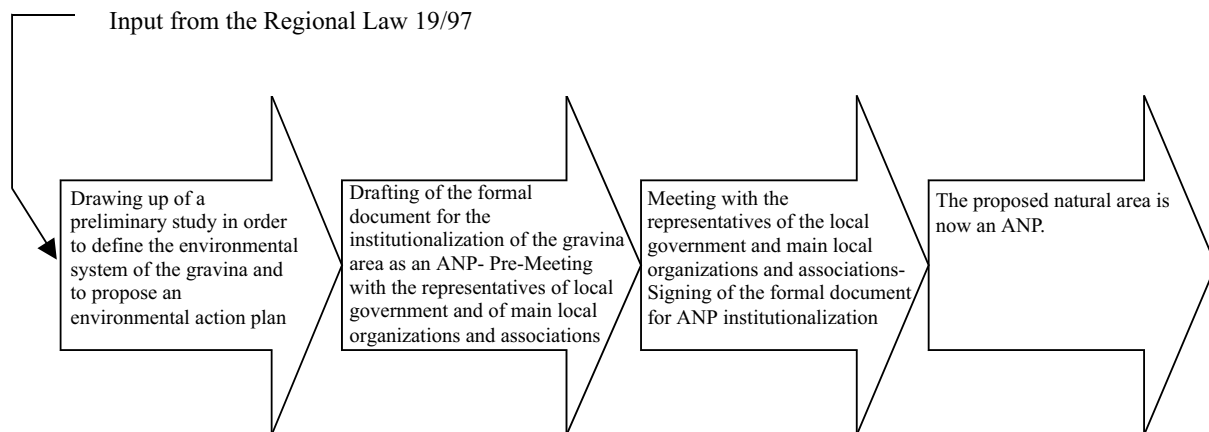| Drawing up of a preliminary study in order to define the environmental system of the gravina and to propose an environmental action plan | Drafting of the formal document for the institutionalization of the gravina area as an ANP- Pre-Meeting with the representatives of local government and of main local organizations and associations | Meeting with the representatives of the local government and main local organizations and associations- Signing of the formal document for ANP institutionalization | The proposed natural area is now an ANP. |

Fig. 2. The instituting process for an ANP.

Unfortunately, the Regional Law regards the ANP of the Gravina in Puglia as a product of a linear process moving through stages of agenda setting, decision making and finally implementation (Figure 2). Instead, collaborative learning in such a situation means improving co-ordination between the organizations which comprise those inter-organizational networks and, so, developing what could be called "institutional co-learning" (Imperial, 1999). The institutionalizing process of the ANP is an interactive and circular process that offers opportunities in developing reflective mechanisms, in order to re-frame the context, to reduce intensity of conflicts, and to provide programs with an more solid "implementation structure".

The linear model (Figure 2) offers an essentially top-down perspective on how things should work. This approach makes an important distinction between processes of decision, and processes of implementation; these latter are seen as unproblematic - merely a matter of good administration - since rational actions in the implementation process are assumed.

The main criticisms of this top-down approach are that it assumes that the policy makers are the legitimate, key actors in the implementation process, while the other players are regarded as "impediments". Accordingly, deviations from the defined environmental action plan are viewed as dysfunctional. This fundamental limitation excludes contributions and strategic initiatives arising from sources other than the policy makers and experts, even if those inputs can actually contribute in achieving social and environmental benefits during the implementation process. Moreover, the moment of decision could turn out to be mere "fiction" given the revisions and amendments to the ANP management process at work. The linear process ignores the fact that implementation takes place in a multi-organizational network where the official goals are vague, where each actor is responsible for a number of programs that may be conflicting, and where different goals are being pursued.

Therefore, a focus on policies as courses of action, part of on-going processes of negotiation and bargaining between multiple actors over time, could provide a second approach to the institutionalization of the ANP. Lindblom, for example, famously described policy-making as the "science of muddling through" (Lindblom, 1959) and advocated an incrementalist perspective on policy process. Such a perspective suggests a more bottom-up view of environmental policy and a more implementation-oriented perspective.

Nevertheless, this pluralistic stance, where citizens have a more direct role in the creation of policy, adopts a more fragmented view of both the organizational framework that will support the ANP management programs and the relationships between individuals as subjects with a range of identities.

However, both the broad approaches outlined above[2], that have dominated literature over several decades, remain surprisingly silent on issues of power (Keeley and Scoones, 1989). In response to these

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[2] In the context of environmental planning, the two approaches (the top-down and the bottom-up) seem be have their importance. The top-down approach may be appropriate for analysing simple, easily monitored and controlled regulatory policy issues, for instance. However, when looking at the complex, uncertain and variable contexts of natural resources management, by contrast, emphasis on local negotiation and incremental field-level action may be more appropriate.

and other similar observations, a third approach to understanding environmental policy processes could, then, be added; in fact, focusing more on the relationships between knowledge, power and policy (between science, local expertise and politics), the collaborative learning approach considers environmental policies as courses of action which are the result of an on-going conversational and learning process. The relationships between scientific experts, local experts, citizens and local officials produce a specific ensemble of ideas, concepts, and categorizations that could be re-produced and transformed into a particular set of practices, and through which meaning is given to physical and social realities. The linear model could be replaced with a conversational model where the micro-practices are the important elements (Lanzara, 1993).

Thus, the collaborative learning approach requires organizational frameworks able to promote communication to develop conversational learning structures which, by penetrating the institutional context and, thus, the formal planning process, can give rise to opportunities for reflecting on planning actions.

In the case of the gravina area, what one is trying to do is to supply actors with means, time and space for communicating and reflecting on the environmental perspectives and on existing practical opportunities to put these perspectives into action. Accordingly, deviations from the defined environmental action plan are not viewed as dysfunctional, like in the linear model, but as an opportunity to reflect.

In giving its operating support, the research program uses a structured yet flexible approach to the institutionalizing process where the environmental action plan advances through iterative cycles of planning/design-implementation re-planning/ redesign. Based on activities of reflection/feedback/backtalk, this learning process makes use of "modifying elements" (Lanzara, 1993), which are introduced into the management systems of the gravina area by the suggestions of environmental action plan. These "modifying elements" are the input for the conversational and reflective activities which facilitate the generation of new schemes of action. Starting from alteration produced by those "modifying elements", what seems to be interesting is the way in which individuals, groups, organizations, and institutions are able or unable i) to re-frame their role and their practices ii) to build the capacity for longterm performance through learning and adaptation.

However, what organizational framework can support the conversational model?

## 4. "IMPLEMENTATION STRUCTURES" AS ANALYSIS UNIT

Fortunately, a growing number of researchers in other disciplines have begun to examine the role that inter-organizational networks play in public policy formation and implementation. Researchers refer to the network phenomena in a variety of ways such as issues networks (Heclo, 1978), implementation structures (Hjerna nd Porter, 1981), inter-organizational policy systems (Milward and Wamsley, 1982) and institutional arrangements (Ostrom *et al.*, 1994).

One promising approach to examining inter-organizational networks seems to be the approach proposed by Hjern and Porter. The authors argue that the "implementation structures" are the "analysis unit" in examining and defining public programs (Hjern and Porter, 1981). Analyzing the "implementation structure", which is a "structure where fractions of many public and private organizations co-operate to the implementation of a programme" (Hjern and Porter, 1981), in fact, is more useful than analyzing the single institutions or organizations.

The authors recognize two different "logics of action" which are not always compatible: the logic of organization and the logic of program. The logic of program is the characteristic logic of the all plans and programs (prevalently public) which need a "more or less" co-ordinated intervention of a plurality of organizations. The resulting whole action will produce an inter-organizational network (or organizational field) which could not be defined and identifiable *a priori*. The whole performance of this organizational field and its structural articulation will be determined not so much by the logic of each organization as by the logic of a program which is mediated by the implementation structure.

However, in addition to the formal organizations and to the institutions, there are other groups which are, potentially, involved in the institutionalizing process of the ANP; they are the "communities of practices". Such organizations are based on loosely connected groups of individuals who share common interests. In pursuit of these goals and interests, they employ common practices, work with the same tools

and express themselves in a common language. Through such common activity, they come to hold similar beliefs and value systems.

Figure 3 shows a general situation in which a set of organizations O1, O2, …On, and "communities of practices" C1, C2, …Cm, participate in the programs P1, P2…. Pj.

Whereas the vertical oval line represents the logic of organization, the horizontal one represents the logic of program. This latter logic is what one individual and group follow trying to adapt their role in the organization (or in the community of practices) with the new role expected in the environmental action plan.
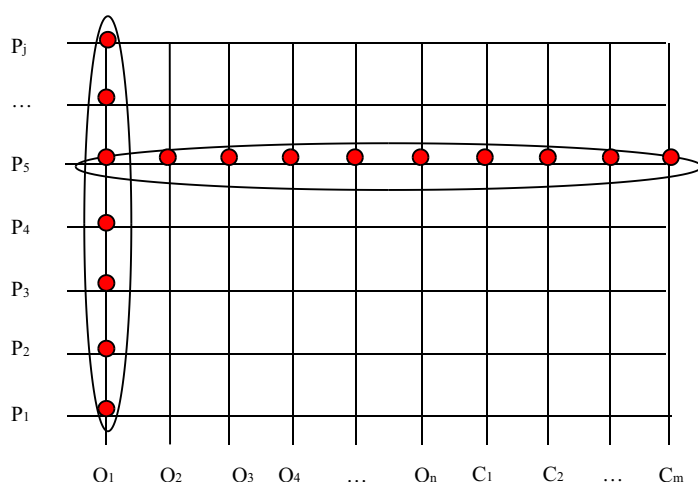


Fig. 3. Relationship between organizational logic and program logic in an "implementation structure" Adapted by Hjern B. and Porter D.O. (1981).

## 5. IDENTIFYING THE IMPLEMENTATION STRUCTURE FOR THE ANP OF THE GRAVINA ENVIRONMENTAL SYSTEM

*Step n. 1: Identifying both environmental action plan and legislation directives:*
In order to identify the implementation structure as an analysis unit, the first step is to take into account both the environmental action plan and legislation directives.

*Step n.2: Recognizing the "action arena":*
Starting from the analysis of these directives it is possible to define, with satisfactory accuracy, the group of organizations and communities of practices which form the environment suitable for environmental action plan implementation. The "action arena", in fact, includes those individuals and organizations that make resources management decisions based upon information about how actions are linked to possible outcomes and the different costs and benefits attached to actions and outcomes (Ostrom *et al.*, 1994).

Thus, the action arena can be seen as a combination of actors, whether individuals or organizations, which interact and make decisions which have impact on the "health" of the ANP eco-systems.

In identifying this set of actors we find that:
the boundaries of the ecosystems often overlap or are embedded in one another;
each resources management issue (e.g. restoration of waterways, re-forestation, …) may have a different set of institutions, organizations and communities of practices that interact;
while identifying the environmental system of the gravina or its eco-systems involves drawing a line on a map (e.g. the watershed boundary or the stepping stones areas), the action arena involves a wide range of actors located outside of the geographic boundaries if their decisions affect the management of the ecosystems.

*Phase n. 3: Evaluating the interaction in the "action arena":*
In order to understand how the ecosystem is "managed" one must first understand how the various formal (e.g. statutes, regulations, policies, zoning ordinances, permit decisions, etc) and informal rules

(e.g. rules governing organizational relationships, coordination processes, etc.) interact with one other (Imperial, 1999).

The case study suggests that three basic categories of variables influence the pattern of interaction among individuals, groups, and organizations of an implementation structure.

First, interactions are influenced by the explicit and implicit assumptions about rules used (rules-in-use) to order relationships between individuals or organizations. Moreover, when looking at attempt to change rules and rule-ordered relationships, it is important to understand the rules currently in place because they can place important constraints on the adoption of future rules.

Second, rules must be compatible with the underlying physical and biological setting. Since physical and biological systems vary, a search for the one best rule for all situations is likely to be doomed to failure (Ostrom *et al.*, 1994). A better strategy is to develop, monitor, enforce, and alter rules in response to changes in environmental conditions.

Finally, the inter-organizational relationships will be influenced by the attributes of the communities where the actors are located. The set of these attributes is what is termed "organizational culture" and includes, generally, shared norms of behaviour and collective operational rules (Schein, 1993).

*Phase n.4: mapping implementation structures:*
Lastly, what could be interesting is to draw a "map of the implementation structure", a map that represents the way in which each element of the implementation structure sees and perceives itself. Only then can we pursue the attempt to supply actors with means, time and space for communicating and reflecting on the environmental perspectives and on existing practical opportunities to put these perspectives into action. Focusing on this relational framework, one might evaluate both the ways in which the local communities and the government officials face the directives of the environmental action plan, and the rules and practices they adopt to orient them.

In focusing on the micro-dynamics of this adaptation process (which is an organizational learning process), the case study is trying to indicate that it is often possible for individuals and organizations "to use their capacities for self-reflection, communication, and self-commitment to design new rules to face problems" (Ostrom *et al.*, 1994).

## 6. CONCLUSIONS

Practitioners and researchers recognize that the capacity to face complex issues is often widely spread among a set of actors. The paper has proposed the study of the implementation structures as an analysis unit in order to take into account the institutional contexts in which environmental public policies have to be implemented.

There are at least two reasons for doing this. First, phenomena, which are described as anomalous or deviant in the organizational context, become understandable in the implementation structure context (Hjern and Porter, 1981). Second, in the implementation structure, democracy, discretionary power and pluralism can co-exist.

Researchers and practitioners must pay closer attention to the important institutional and inter-organizational management questions that have largely been ignored. It is important for practitioners and researchers to recognize that eco-system-based management is as much a problem of "governance" involving multiple organizations located at different levels of government as it is a question of science and designing effective policies for managing natural resources, and it is also a problem of developing and transforming local practices . A lack of understanding of these important institutional questions is likely to result in inappropriate policy recommendations and decrease the effectiveness of resources management programs.

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