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Marine Nature Parks: a policy instrument for territorial governance?

Abstract: This chapter explores the principles, functioning and impacts of France's Marine Nature Parks, an original marine management tool. It focuses in particular on interactions between the different categories of stakeholders and the hybridisation of knowledge through consultation procedures, in order to put forward an analysis of the decision-making process and the implementation of actions in Marine Nature Parks, at the crossroads between national policy and territorial governance.

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Ten years on from the creation of France's first Marine Nature Park, that of the Iroise Sea (PNMI in 2007) and against a policy backdrop of increased protection of marine ecosystems⁴, the development of marine spatial planning and the generalisation of integrated coastal zone management approaches (Billé 2004), it appears appropriate to review the principles,

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⁴As the country with the world's 2nd largest maritime area, France has a major responsibility with regard to its international commitments, compelling it to expand and reinforce its national network of Marine Protected Areas for conservation and sustainable management purposes (David 2013).

functioning and impacts of France's Marine Nature Parks (MNPs), which constitute an original marine management tool. As initiatives devoted to the integrated management of maritime areas of special interest, MNPs offer a new vision for a harmonious balance between biodiversity conservation and the sustainability of human activities (Van Tilbeurgh 2009 and 2006; Dahou and Cormier-Salem 2009). While their status clearly springs from a national policy choice which greatly spurred the pace of the creation of Marine Protected Areas (MPAs) and the expansion of their surface areas in compliance with international commitments, MNPs have the specificity of integrating local issues, as well as local stakeholders and authorities, so as to harness their support for future MNPs, for which the development strategy and decision-making process are implemented at State level. It is this two-pronged approach, as a national policy instrument and a territorial governance tool, that we intend to explore in this chapter.

This investigation comes against a relatively new backdrop, in which the paradigms for the action of the State at sea are evolving towards an institutionalisation of public decision-making through participatory, legitimising mechanisms. The French State includes local stakeholders (both public and private) and their representatives in this process, and negotiates with them the introduction of management and/or protection initiatives that concern and directly affect them (Duran and Thoening 1996). These transformations embody the widely referenced deliberative (Blondiaux and Sintomer 2002; Salles 2006) and participatory (Lascoumes and Le Bourhis 1998) turning point which today characterises environmental concerns in a broader sense (Lascoumes 1994) and in which the participation of the various stakeholders (Leroy and Salles 2013) is beginning to replace expert input, through a sometimes normative injunction (Callon, Lascoumes and Barthe 2001). It is within this precise context that the concept of adaptive governance of social-ecological ecosystems (Folke et al. 2005) emerged and is expected to henceforth become dominant as a category that is simultaneously ideal (good governance), analytical (research) and active (multi-objective and multi-stakeholder).

From this point of view, MNPs offer an excellent observational framework. Established by the French law of 2006⁵, which also reforms National Parks (PN) and Regional Nature Parks (PNR), MNPs (Art. L. 334-3.) can be created in waters under French sovereignty and in waters under French

⁵French law No. 2006-436 of 14 April 2006 relating to national parks, marine nature parks and regional nature parks.

jurisdiction as well as in areas belonging to the public maritime domain. They appear as one of the initiatives marking the turning point towards decentralisation (Mazé 2017). Through their Management Board⁶, MNPs are one of the tools managed by local stakeholders, under the authority of the French State and even the European Union, in compliance with the principle of subsidiarity⁷ and patterns of Europeanisation (Mazé 2014). For instance, an MNP's management plan is drafted by the Management Board (in which the State is a minority), approved by the Governing Board of the French Marine Protected Areas Agency (AAMP, later to become AFB, the French Biodiversity Agency) in which the State holds a majority and constitutes a Natura 2000 objectives document; it thus represents a commitment on behalf of France with respect to the European Union.

MNPs hence appear to contribute to the transformation of historical modes of government, through the emergence of instruments of collective action (Lascoumes and Le Galès 2005), whereby the role and action of the State are redefined with regard to the inclusion of new stakeholders in the process (Theys 2002). The modes of State intervention in local areas are evolving, shifting from a centralised model towards territorial governance, whereby the State delegates a certain number of its powers to various stakeholders at different levels (Pasquier, Weisbein, Simoulin 2007), to the point of the unprecedented procedures of remote government (Epstein 2009), characterised by the paradoxical reinforcement of the State's role outside of local territories, against a backdrop of decentralisation – as has been demonstrated for urban policies in France (Epstein 2005). Through these changes, the relationships between central power and local powers are being reshaped. Thus, Marine Nature Parks (MNPs), a relatively recent concept, are perfectly suited to this exercise of observation and phenomenological analysis.

⁶ “Composed of a minority of local representatives of the State, together with representatives of interested local authorities and their competent groups, the representative of the interested regional nature park(s), the representative of the management body of a contiguous marine protected area, representatives of professional organisations, user organisations, environmental protection associations and qualified individuals” (Art. L. 334-3.)

⁷ Introduced into European legislation by the Maastricht Treaty, this principle aims to ensure that decisions are taken as closely as possible to the citizen; regional and local authorities thus gain close ties with the EU, in particular in relation to land use planning.

The park creation process is already well underway (with 8 Marine Nature Parks created between 2007 and 2016), and they acquire their legitimacy at varying timescales. The analysis of these dynamics allows us to follow *in-concreto* the transformations of public action occurring within the decentralisation movement under the banner of territorial governance (Pasquier, Simoulin and Weisbein 2007), which contributes to desectorialisation and integration in their maritime application (Saliou 2012). MNPs thus provide insight into the role of initiatives having emerged with the deliberative and participatory turning point in redefining public action and the implementation of new forms of less centralised public policies, that are less top-down and more open and horizontal.

By studying the recent marine application of these new ways of approaching and implementing public action, it is possible to measure the real effects, both in terms of legislative production, against the yardstick of its many goals (ecological, socio-economic, heritage-related, public policy-related and anthropological), and the methods of implementing their governance. It is with this aim that managers of Marine Protected Areas, including Marine Nature Parks, are today working in close collaboration with researchers from various disciplinary and geographical horizons to put forward tools to evaluate the effectiveness of these new forms of maritime governance⁸.

In the wake of this work, this chapter will proceed to review the place of MNPs, at the interface between national and local systems, between top-down State action and territorial governance, through the cross-cutting insights of a political scientist, a legal expert and an MPA manager. The aim is to understand how decisions are formed within MNPs, as a new way of implementing public action close to the field, overcoming the opposition between the State's sovereign vision, supposedly uniform and equitable in the maritime field, and the fragmented (or "Balkanised") vision influenced by the context and the interactions between local stakeholders. We will thus explore how the voice of this panel of local stakeholders ("the voice of the sea"⁹) is indeed heard, to what extent and in what conditions. We will

⁸ See notably the results of several research projects on the governance and evaluation of MPAs (PAMPA, GAIUS, AMPHORE, etc.), the governance indicators of Marine Nature Park dashboards, the work of GIS HomMer.

⁹Inaugural speech by Mr Christian Manable, President of the Somme General Council, at the first meeting of the Management Board of the "Estuaires picards et Mer d'Opale" Marine Nature Park (July 2013): "A collective ambition: that our

investigate whether the State takes into consideration the positions expressed by a park, the degree of territorial integration of this type of initiative and how its performance and effectiveness can be assessed.

To provide answers to these questions, we will draw upon the key concepts of the analysis of collective action and public policies, combined with a legal analysis of the normative power of parks, building upon empirical observations. Firstly, we will outline the characteristics of MNPs in terms of governance, then in the second section, drawing upon examples taken from three Marine Nature Parks, we will examine the effectiveness of these new management initiatives.

MNPs: an original model for MPA governance

The primary characteristic of MNPs lies in the fact that they offer a somewhat inverted model for the design, establishment and governance of an MPA. The legal acts for the establishment of other categories of MPAs recognised under French law¹⁰ comprise a regulatory framework with varying degrees of restrictiveness for the management of rights and freedoms (according to the status and sites selected): bans, limitations, administrative authorisations, controls, sanctions, etc. For MNPs, this is not the case, as the decree providing for the creation of an MNP does not comprise any regulatory provisions that amend the laws and rules in force. Aside from the definition of the geographical space concerned, the composition of its Management Board and the presentation of its orientations, the establishment of an MNP does not comprise *ex ante* a corpus of norms regulating the access and use of the park area. This function inherent to the majority of MPAs in fact develops *ex post* and incrementally within an MNP, as its policies are implemented. Thus, assent procedures by the Management Board may concern any activity liable to have a significant effect on the park's marine environment. The Management Board has a proactive role and can also contribute to the regulatory framework, significantly regulating activities in the field. Finally, park staff are authorised, as environmental inspectors, to record

Management Board may become “the voice of the sea” so that all our fellow citizens may appropriate the Estuaires picards et Mer d'Opale Marine Nature Park in a positive manner and as a new step towards sustainable development.”

¹⁰ Article L334-1 of the French Environmental Code.

offences against the Environmental Code, maritime fisheries code, the public domain, etc.

It is therefore during the management plan drafting phase, i.e. during the definition of the ambitions of the Management Board for the park, that its capacity to contribute to decision-making and management processes is played out.

The management plan: a strategic and collective vision defined by stakeholders

The development of a management plan is a unique strength in the French administrative landscape: it consists in a group of stakeholders, representing a maritime area, defining a collective vision of what this space, with its many and sometime contradictory challenges, should become, while the majority of competences relating to this area remain in the hands of the State. In other words, for the management of what are often fragile areas in terms of their ecosystems and complex areas in terms of stakeholder interactions, the French State recognises the relevance of handing over the responsibility of a share of maritime management in exchange for a balanced management strategy for the area, based on the preservation of the marine environment and the sustainable development of its uses, while building on knowledge development and dissemination.

While MNPs are MPAs, their vocation is not only to strictly protect the marine environment. They must also provide for the organisation of multiple uses, access to the park and the control or effective mitigation of the effects of said uses and access on the marine environment. This consensual approach and the quest for a sustainable equilibrium constitute the main challenges for Marine Nature Parks.

Another specificity lies in the fact that the marine environment sustainable management strategy, set out in the park's management plan, must necessarily incorporate local issues, often emblematic for the area and strongly rooted in local and heritage representations. The aim is to gain the recognition of the majority of local stakeholders in the park's strategy and its final approval by the Management Board.

Meanwhile, the area classified as an MNP by the legislation is not exempt from the continuity of national and European public action. The

management plan must integrate the requirement to apply European and French public policies and their objectives within the park: 1) the Water Framework Directive and the quality objectives set out in French Water Development and Management Plans (SAGE); 2) the Habitats Directive and the Birds Directive and their obligations to maintain or restore a favourable conservation status for habitat types and species of community interest; 3) the Marine Strategy Framework Directive and French Action Plans for the Marine Environment (PAMM).

This coordination and this obligatory consideration sometimes generate tension when certain stakeholders may attempt to use the specificity of the area and of its territorial governance (Pasquier, Simoulin and Weisbein 2007) to exempt or distance themselves from these obligations. The expected added value of the park's status in relation to these questions can nevertheless be to offer a clear framework, providing a consistent approach to these different expectations as part of an integrated strategy for the area as a whole.

The MNP management strategy is approved, after being appropriated locally by the Management Board, by the Governing Board of the Marine Protected Areas Agency, after seeking the opinion of the scientific committee¹¹, public consultation and the commander of the maritime zone. This very intense preliminary phase gathers stakeholders around a local project (numerous association meetings are held within a maximum period of 3 years as laid down by the decree providing for the creation of the park), but does not offer stakeholders complete freedom. Indeed, the Governing Board of the Marine Protected Areas Agency, in particular representatives of the French State who sit on the board as Government commissioners, may ultimately be responsible for verifying the management plan's compliance with the fundamental objectives of MNPs and the orientations of the decree providing for

¹¹ Article R.334-17 of the French Environmental Code states that: *"The Scientific Committee shall be consulted on projects relating to the creation of Marine Nature Parks and their management plans [...]"* The Scientific Committee's rules and regulations state that *"the Committee is not asked to provide a formal opinion (such as "Approves", "Disapproves" or "Compliant"), but rather to offer scientific insight into the project, in order that the Governing Board may make its decision with full knowledge of the facts"* (Art. 5). The Scientific Committee's opinion is based in particular on the examination of the best knowledge available in natural science and human and social science, to characterise the park's ecosystem-related and social issues. The aim is to ensure the consistency of the proposed project with the marine environment issues and the integration of the park's marine environment management strategy within its regional context.

the creation of the park. Finally, the integration of the State's overarching commitments under its environmental and maritime policies must be guaranteed, as must the consistency of the MNP project at regional level¹², and the implementation of a proper local consultation process.

In this regard, mention can be made of the recommendation, issued by the Governing Board of the Marine Protected Areas Agency at its meeting on 24 February 2016¹³ held to approve the Estuaires picards et Mer d'Opale management plan, to improve the plan through better integration of Natura 2000 issues in the park area.

The Management Board, a reflection and instrument of the deliberative turning point

The second specificity of an MNP resides in its organisation and functioning. The Management Board is its central governance body and supports the park's local appropriation by its representatives. It is a consultative body whose members are involved in the park's management (Art. 5 of the decree of 11 October 2011 **providing for the creation of the Marine Nature Park of the Gulf of Lion**), but it does not have any formal regulatory competence over the area covered by the MNP.

The role of the Management Board is based on consultation and participatory functioning, making it the very expression of what a coastal zone "good management" tool should be. The institutionalisation of what was created to be a participatory and deliberative governance body, proclaimed to be a true Parliament of the Sea (or a collective decision-making platform), may be seen as the reflection of contemporary transformations of public action, marked by the deliberative turning point.

The specificity of the Management Board lies in the fact that it operates under the delegation of the Governing Board of the Marine Protected Areas Agency, which is in turn under the authority of the French Ministry of the

¹² At the scale of the European Union for instance or of the Mediterranean Basin (Barcelona Convention).

¹³ Ruling 2016-04 published on 25/04/2016 and consulted at <http://www.aires-marines.fr/Actes-administratifs/>

Environment, Energy and the Sea. The MPA Agency, and through it the French State, delegates part of its powers to the Management Board, thus assigning the Board a share of its responsibility. Delegation is not in itself something new. In fact it is a very common feature of the functioning of governmental institutions and their administrative organisation. What is original is the composition of this board, in which the State deliberately takes a back seat and retains a minority position. It thus marks its choice to delegate to non-State local partners (decentralised public authorities and private stakeholders), and no longer exclusively to its conventional decentralised representatives working in the maritime domain. To do so, the Management Board brings together representatives of local marine environment stakeholders: professional fishers, tourism operators, industrial firms, local authorities, leisure users, environmental protection associations, experts and Government departments (minority). These members, initially appointed to represent the interests of the college or corporate group to which they belong, generally soon begin to feel invested with the power to manage the maritime area, such that the general interest gradually takes precedence over corporatist interests. The Management Board thus offers a form of dual legitimacy: governmental legitimacy in relation to its recognition (delegation) and civil legitimacy in relation to its composition and functioning, i.e. decentralised and close to stakeholders. Its mode of governance consists in organising discussions between a certain number of associated stakeholders, with the intention of representing the diverse interests: general and local public interest defended by public representatives (State and competent local authorities), the socio-economic interests of maritime activities defended by sector stakeholders, citizen or community interests defended by associations and non-governmental organisations, scientific and technical interests defended by experts (scientists and practitioners). However, given the often multipositional role of the board members (social spaces, institutions, groups, networks to which they belong and their personal involvement in certain aspects), it would be worthwhile more systematically investigating the representation of interests based on the positions of stakeholders and groups (Offerlé 1998).

Under the authority and control of the French State and the MPA Agency, the Management Board issues opinions, whether it be through a consultation or assent procedure, and recommendations. The assent procedure is the only joint and delegated decision-making process for the park, as provided for in Article L334-5 para. 4 of the French Environment Code: “*When an activity is liable to significantly degrade the marine environment of a Marine Nature Park, the authorisation it requires may only be issued with the assent of the Marine Protected Areas Agency or, **by delegation, the Management Board.***”

This procedure is not applicable to activities fulfilling the needs of national defence, public order, maritime safety or pollution control". In addition, the Management Board has the capacity to conduct or initiate various public support policies that comply with the orientations and objectives of its management plan. These may be general interest, development, investment, research or other actions across all fields related to its mission: conservation, sustainable development, education, scientific studies, data collection and analysis, public information/awareness, dissemination, communication, works and undertakings, etc. (Féral 2011).

In order to function, negotiate, propose and ultimately decide, the park will draw upon a network of advisers and experts via which it can obtain the information required for informed governance. Expertise should not be considered external to governance, but rather as one of its components. It is required in both pre- and post-decision-making phases, and is even considered to be a factor of "good governance", scientifically founded and evaluated using performance indicators. Yet this should not overshadow the ultimate purpose of expert assessments, which resides in their capacity to effectively contribute to decision-making. Although MNPs are not in themselves regulatory tools, they are expected to contribute to better application of the existing rules by providing insight into the issues at stake for the benefit of all parties involved, and, where relevant, bringing about changes to the existing rules, thereby helping to implement and apply the multiple sustainable development and protection objectives. In this respect, MNPs are also public policy tools¹⁴ intended to support managers' choices, projects and resources. It is from this point of view that we will approach the role of science and expertise within MNPs.

Expertise, an MNP legitimisation tool?

The question of expertise, which raises that of the relationships between knowledge and power (Lascoumes and Le Bourhis 1998), constitutes an excellent starting point for understanding contemporary transformations of public action, which are reflected by MNPs. Work on whistleblowers (Chateauraynaud and Torny 1999) has revealed how as-yet marginal groups or institutions (such as the park Management Boards popping up in the

¹⁴ Although the Management Board is not responsible for decision-making in relation to budgets or recruitments within the park.

environmental decision-making system) can be strengthened thanks to the position and renown expertise can give them.

Indeed, by drawing upon science and expertise, the goal sought by MNP Management Boards is to provide insight for informed decision-making by providing an opinion to the authority processing an activity authorisation application, in particular when the activity has a significant effect on the park's marine environment. Each park should constitute pools of hybridised knowledge of its area, at the crossroads between technical and scientific expertise, but also know-how.

Different categories of experts are therefore involved at different times and levels in the life of the park: the park's technical team, scientists, representatives of nature associations, ecologists or other consultancy professionals. Park teams possess more or less integrated knowledge of the issues within their scope of action. In support of management plans, they are capable of producing multidisciplinary analyses that are consistent with the objectives, while calling upon complementary external expertise when need be. Expertise can take different forms: drafting of charters and contracts, establishment of regulations, issuing of technical opinions, project engineering by the park's technical team specialised in various fields (natural heritage, water quality, tourism and leisure activities, fisheries, awareness-raising and communication with different audiences, mapping, etc.).

The technical teams' knowledge will be tailored to and consistent with the management plan, the issues at stake within the park and the limited financial resources of MNPs. Based on this latter consideration, very costly or ongoing scientific research and monitoring cannot be conducted; collaboration with teams of researchers with their own public (ANR, Liteau, European funds, etc.) or private (foundations, sponsorship, etc.) funding is therefore indispensable. Scientific investment in MPAs in general and in MNPs in particular highlights the contribution of these areas to advances in fundamental and applied research and the sharing of these gains to the benefit of managers and local stakeholders.

However, one of the fundamental characteristics of MPAs today is that scientists, in particular in the fields of life sciences and earth sciences, appear to be the main beneficiaries of public investment in MPAs. The interest and contribution of MPAs to fundamental sciences also feature among the purposes of their governance, in order to benefit researchers and experts, who enjoy privileged and often special access rights to the most protected sites. The purpose of MNPs, and more broadly of multi-objective MPAs, is indeed to combine sustainable development, cultural heritage and biodiversity

protection objectives, to achieve the overarching goal of supporting good environmental status for the marine environment and by bringing in different types of knowledge (empirical, professional and vernacular) with a view to the sustainability and adaptability of coastal and marine practices, a concern that has been present for many years and remains very much so today (Leroy and Salles 2013 - Bérard and Crespin 2010).

A major virtue of scientific and technical expertise is that it is used at various stages in a park's management (preliminary studies, experimentation, implementation, monitoring and evaluation) in order to optimise decision-making and to achieve the best possible knowledge required for "good governance": this knowledge- or science-based management (Bremer and Glavovic 2013; Alphandéry and Fortier 2001) is further enhanced by the participation requirement. Yet the Management Board must also take into account scheduling constraints and make decisions on a foundation of incomplete knowledge or uncertainty (Callon, Lascoumes and Barthe 2001). Expertise is indeed required prior to the examination of applications. It is involved throughout the knowledge construction and pooling process by the park and the issuing of recommendations and opinions. However, reports produced following studies and expert assessments conducted within Marine Nature Parks show that it is not always possible to systematically link the results with management decisions and in particular with proposals for new or amended regulations. It would be relevant, in this respect, to examine in detail the reports produced following studies and expert assessments conducted within Marine Nature Parks in order to assess the degree to which the results can be linked with management decisions and in particular with proposals for new or amended regulations. Expert assessments provide a better understanding and advance the state of knowledge, yet without necessarily generating new decisions based on the content of their work. An expert assessment can even sometimes be a way of postponing a decision, when a situation or problem justifies more in-depth investigation in order to gain a fuller understanding before responding effectively. Consequently, this can sometimes delay the final decision or the management choices due to incomplete, uncertain or undetermined knowledge or parameters.

Conversely, expert assessments conducted within parks at their own request can in some cases have a direct effect on regulations: according to the results of health status monitoring studies and impact studies, regulations may be adapted, in particular to adjust the balance between preservation and sustainable use. A park, such as that of the Iroise Sea, may need to characterise the effects of fishing gear (e.g. kelp dredging gear known as the "Norwegian kelp dredge" in the seaweed fields off Molène Island) or seaweed harvesting

on the environment (e.g. by Agrival in the Bay of Douarnenez); it may decide to map seaweed beds with a view to contributing to better stock management by monitoring the resource's conservation status; it may also be required to provide insight on issues such as water quality (eutrophication, toxic phytoplankton). Such work is carried out through collaboration between the park's technical team, volunteer fishers, associations, consultancy firms and scientists, in order to nourish knowledge networks, harmonise protocols and mobilise available knowledge so as to obtain the best possible information (see chapters by T. Debril and K. Frangoudes).

It is therefore expertise that makes the Management Board a hub where knowledge and power come together (Roqueplo 1997), a testing ground for relationships between knowledge and action (Bérard and Crespin 2010) characteristic of the environmental and marine sector today. The Management Board perfectly illustrates the strong demand for expertise that characterises the field of decision-making and environmental management, against a backdrop of marked uncertainty of knowledge (Callon, Lascoumes and Barthe 2001).

Assent: a regulatory instrument of limited scope and usage

The Management Board is competent to take action on any question or issue relating to the park's protection and sustainable management, in particular to issue opinions, whether through a consultation or assent procedure, according to the nature of the activity concerned and its impact on the marine environment. With the consultation procedure, the Management Board, or its Executive Committee upon delegation, issues an advisory opinion, which the Government departments have no obligation to follow (reactive role). Nevertheless, this should be balanced against the spirit of the texts and in reference to the articles of the French Environmental Code which stipulate that public policies must be consistent with the park's management plan. Although this advisory opinion is not binding for Government departments, it is judicious for the Prefect to take into consideration the opinion of this full panel of sea users, forming a balanced assembly, on a given issue, *a fortiori* when said opinion is reached unanimously. This is often the case in reality.

A contrario, with the assent procedure, the decision-making authority must comply with the opinion issued (limited discretionary power and proactive role). The Government departments in charge of examining applications

refer to the Management Board when it is capable of delivering an opinion on the issuing of administrative authorisations. Article R.331-50 of the French Environmental Code specifies the activities liable to require assent. These refer to authorisation applications which must be examined by departments external to the MNP. The MNP is therefore not the initially competent body for assessing the significant effect related to the authorisation, and yet it must contribute through a complementary and systematic approach. It thus by rights becomes a joint contributor to the decision to grant or definitively deny authorisation. Through this determining role, the MNP is able to provide insight for making an informed final decision, based on its central position in terms of the analysis of issues at stake, burden of proof and achievement of or compliance with the objectives set out in the management plan.

The critical analysis of the documents provided by the examining departments consists of three stages: a technical memorandum/review, which presents the application by highlighting its strengths, weaknesses and related recommendations; a proposed opinion on the form (advisory opinion or assent), nature (approval/disapproval) and reservations (transposition of all or some of the recommendations); an oral presentation during a Management Board meeting.

In the following section, we analyse three decisions made by Management Boards, set within different contexts, in order to examine the mechanism behind this assent procedure.

Thus, for instance, the Iroise Marine Nature Park (PNMI) in Finistère, Brittany, demonstrated its powers by granting or refusing assent for several activities identified as being responsible for significant impact on the park's marine environment (purse seining, agriculture, shell sand extraction, *Donax* clam harvesting, etc.). The most noteworthy case was irrefutably in 2011 when the Park refused assent to the extension of an industrial pig farm near the Bay of Douarnenez (Saint-Nic), a site regularly swamped with green algae. The number of piglets and pork pigs raised at this farm had increased from 7,000 to 10,000 in 2003, yet this extension authorisation was withdrawn by the administrative court in 2009 on the grounds of procedural error due to the lack of a public inquiry. The Marine Nature Park's Management Board thus declared its support for the rectification of the pig farm's administrative situation, but refused the farm's extension plan which consisted in increasing its capacity with an extra 900 pigs. This rectification also included the construction of an effluent treatment plant which also treats wastewater from the neighbouring village, thus justifying assent. The

Management Board, which wished to see a decrease in nitrogen inputs in the Bay of Douarnenez, thus demonstrated its capacity to influence the decision. This opinion was given on the basis of a target of 30% reduction in nitrogen inputs to the sea, a figure included in its management plan which draws upon the Loire and Brittany Water Development and Management Plan (SAGE)¹⁵.

At the other end of the spectrum, a very recent episode in the Marine Nature Park of the Gulf of Lion highlights the limits on the Park's sphere of influence when the State decides to take back the reins on certain issues. On 9th February 2016 in Cerbère, the Management Board was required to give assent in relation to two applications, one for authorisation for a water intake and the other for port installations¹⁶. During the meeting, the Prefect for Pyrénées-Orientales, as a Government commissioner, invited the Board to provide an advisory opinion, on the grounds of a legal weakness relating to the assent procedure under the Environmental Code. This episode flags up the political and institutional limits of the Management Board. It remains a legitimate, consultative body, whose vocation is to provide insight for informed public decision-making, without however superseding conventional decision-making authorities, in particular State-level maritime authorities. This reminds us how essential it is to question and monitor parks' normative capacity, in particular in the eyes of the French State. The diverse range of local situations and solutions brings to the fore how recent this system is, as well as the need to reinforce and stabilise the framework of action of MNPs (but also of national parks which use the same system) in terms of the scope of their power (or influence) and their competence. This underscores the utility of drawing upon social sciences for these new issues relating to governance by local assemblies, referral procedures, whether consultation or assent, and the real scope of their action, delegated either theoretically or functionally.

The possibility of the Management Board giving an opinion *proprio motu* has not yet undergone any in-depth legal and political analysis. Mayotte

¹⁵ Ruling 2011-2 published online on 07/06/2011 at <http://www.aires-marines.fr/Actes-administratifs>.

¹⁶ Quai Dezoums extension project in the port of Port-Vendres and temporary occupation authorisation for the installation of a pumping facility at sea by Arago laboratory in Banyuls-sur-Mer for the Biodiversarium.

MNP however offers two interesting examples. The first relates to an oil prospecting authorisation application within the Glorieuses Marine Nature Park. The Mayotte Marine Nature Park deemed that such prospecting could have significant effects within its limits and thus took a two-phase approach:

- First, to request a copy of the Glorieuses offshore prospecting application submitted by SPEC PARTNERS Ltd and YB CONSEIL EURL¹⁷.
- Second, by refusing assent to the project, by decision of the Management Board¹⁸, resulting in refusal of the application by the decision-making authority.

The second example focuses on the issue of active industrial fisheries within the park and the legal obstacles for managers to impose effective restrictions on these activities. This more widely illustrates the risk of non-invocability of the competence of an MNP with respect to legally superior provisions. In this instance, this refers to the framework of application of the European Union's new Common Fisheries Policy (CFP) and certain international fisheries agreements.

Since its creation, the Management Board of Mayotte MNP (PNMM), through its professional representatives of local small-scale fisheries, has been keen to limit industrial fisheries in the Park's waters which cover Mayotte's entire Exclusive Economic Zone (EEZ). The vessels in question (tuna seiners) are registered in France, Spain and the Seychelles. To date, the assent of PNMM has never been sought in relation to access authorisation requests for industrial fishing vessels, for which annually renewed licences are issued. Several advisory opinions have been issued, only one of which was unfavourable¹⁹, but which was however applied by the

¹⁷ Ruling of the Executive Committee of Mayotte PNM of 16 January 2015.

¹⁸ Ruling of the Management Board of Mayotte PNM of 17 June 2015.

¹⁹ Unfavourable opinion delivered on 10 October 2013 for the authorisation of a new auxiliary vessel for tuna fishing. This opinion concerned the conditions for fishing operations, rather than the granting of a fishing licence for the company in question. This advisory opinion led to a refusal of the application. The other advisory opinions issued were favourable subject to technical recommendations.

administration²⁰. This situation related to Spanish and Seychelles fishing companies, in particular up until 1st January 2014, when the Mayotte EEZ became EU waters and thus became accessible to Spanish vessels (without a prior licence). As for the Seychelles fishing companies, their access to EU waters was henceforth authorised, not by France, but directly by the European Union, under an agreement (fisheries agreement of 08/07/2014 on access to the waters of Mayotte). The applicable fees are directly collected by the EU. On this point, which is essential to the use of Mayotte's EEZ, the Mayotte MNP expressed regret that it was not consulted prior to the signature of the fishing agreement, while bearing in mind that French legislation, which provides for the consultation of Marine Nature Parks, cannot prevail over that of the European Union.

The Management Board, determined to be involved in a legitimate form of governance of industrial fisheries within its waters, requested, through a motion passed on 23 September 2014, that the French State take the necessary steps to ban fishing in the waters within 100 nautical miles of the Mayotte baseline, by any vessel not registered in the ports of Mayotte, except for European Union vessels that traditionally fish in these waters in so far as these do not exceed the fishing effort traditionally exerted, in compliance with the provisions of the Common Fisheries Policy. A complementary legal analysis confirmed the soundness of the MNP's position, deeming that this decision should fall to the Prefect, while noting that a limitation on access to the 100 nautical mile zone could not extend beyond 31st December 2022²¹, and that the Republic of Seychelles must be notified of the order by the European Union four weeks prior to its entry into force.

To date, PNMM has not been heard in relation to its rights to reserve the zone in question for local fisheries or European fisheries with historical rights. The incomprehension was all the greater given that no reason was given and no rejection was officially notified by the French Ministry in charge of fisheries or by the European institutions. This example shows that

²⁰ This shows that advisory opinions provided under a consultation procedure can sometimes have just as strong an impact on legal decisions as the assent procedure.

²¹ Articles 5§2 and 5§3 of Regulation No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC.

attempts by a Management Board to influence the governance of the MNP can be ignored by the public authority confronted with regional economic interests that evidently outweigh those of the MNP and its area, however extensive it may be.

The vast majority of opinions given by Management Boards are through consultation procedures and the exercise of the MNP's normative power through assent procedures remains in the minority. Several explanations can be put forward. First, the relatively recent nature of this tool (10 years since its creation), which is the newest category of MPA, means that it **does not yet have a longstanding history of** governance marked by regular involvement in joint decision-making. Essentially, MNPs will need to gradually construct their own doctrine in relation to "activities with a significant effect" in order to better define, integrate and assess them. To do so, they may develop precise recommendations on activities (in terms of risk and thresholds²²) in their management plan, or draw upon mechanisms set out in environmental legislation, such as impact assessment criteria or the grounds for requesting an opinion from the national park laid down in Article R331-50 of the French Environmental Code. Finally, the possibility of the Management Board giving an opinion *proprio motu* would appear to be of key importance in the territorial affirmation of the park, its political strategy, its regulatory capacity and its legislative production.

Assessing MNP operation

The consistency and effectiveness of Marine Nature Parks, as an original tool recently applied to French seas, has not yet been fully demonstrated. It is therefore interesting to analyse how MNPs achieve their management objectives and to understand how they are placed within the local context, in particular by examining their real weight in State-level decision-making processes.

²² See notably: GIS HomMer, Proceedings of the workshop entitled "Capacité de charge" held on **24 and 25 November 2015, Muséum National d'Histoire Naturelle, Paris**.

- The PhD thesis in progress entitled "*La notion de "capacité de charge" saisie par le droit public ? L'apport du Protocole sur la gestion intégrée des zones côtières en Méditerranée et les implications en droit du littoral, de l'environnement et de la mer.*" PhD student: Lucie Sidan, under the supervision of Florence Galletti (IRD, UMRMARBEC).

The assessment of how parks operate today is primarily the prerogative of Management Boards, through the use of “dashboards”, designed as management and decision support tools. By enabling the Management Board to assess the effectiveness of its actions, i.e. the achievement of its objectives, dashboards help to direct resources to best effect.

Each park has a set of governance indicators. This includes an indicator that records the integration of opinions issued and regulations proposed by the park in State-level decisions. For the Iroise Marine Nature Park in 2014, this indicator revealed a very positive result²³. It reported that 100% of opinions given through assent procedures and 94% of advisory opinions given through consultation procedures had been followed by the State. This indicator has increased since the creation of the Park in 2010.

Beyond the question of effective management, the broader question is raised of the expansion of park operation assessment procedures, in particular by the MPA Agency’s Governing Board, its supervisory authority (French Ministry of Ecology) or any other external stakeholder (external audit). Discussions are currently in progress at the MPA Agency, in association with France’s IUCN National Committee, to expand the governance indicators for multi-objective MPAs, which could help to stabilise and consolidate these recent structures in the landscape of decision-making and environmental public actions: analysis of governance paradigms and models, processes and stakeholders represented, identification of values and underlying representations, consideration of knowledge produced and opinions issued, according to their technical and political nature (Saliou 2007), etc. To date, the chosen angles to be integrated in this marine park operation assessment grid focus for instance on the level of ambition behind the park’s concrete actions, the adequacy of the park’s resources given this ambition, the decision-making arrangements within the Management Board (collegiality, transparency), the “informed” nature of decision-making, but also longer term its identification as a key player by local stakeholders, the increasing convergence between other public policies and the park’s objectives, and the coordination of the park’s actions with local and national public policies.

²³<http://www.parc-marin-iroise.fr/Le-Parc/Objectifs/Tableau-de-bord>

A large share of these criteria also converge towards those put forward by the IUCN for Green List certification²⁴ that gives recognition to well-managed and well-governed protected areas. The aim is not necessarily to create new analysis frameworks, but rather to provide input for discussions within Management Boards by expanding the dashboards, which focus on effective management, with a governance assessment tool. Thus, the governance analyses conducted within MPAs themselves and the study of its real effects could become one of the elements of MPA assessment.

This is also one of the findings of the EC-funded INCO CONSDEV project on MPAs in West Africa (Dahou et al. 2004; Weigel et al. 2007 and 2011), under which the lessons learnt from the analysis work conducted resulted in the description of governance models and the proposal of public policy orientations. The diversity of the areas considered and the complexity of societal situations triggered a global analysis of the issues within these MPAs and their characterisation: amidst major economic and demographic constraints emerged a syncretic legal system (negotiated between the State authorities and civil society stakeholders) within MPAs and their necessary strategic integration in environmental policies. The final outcomes of the analysis call for clarification of the objectives, the regulation of access rights and delegation of powers, specific funding of governance measures and a precise assessment of costs and benefits, today in progress.

Discussion and conclusion

After this detailed discussion, we shall now take a closer look at the fundamental characteristics of the governance of MNPs with respect to their operating principles (advantages and limits) and their future prospects.

As a national policy instrument, MNPs firstly are evidence of the pursuit of legitimate governance and decentralised inspiration through the creation of a Management Board in which local representation holds the majority by right. Based on the creation of a centralised, State-level initiative, their

²⁴<http://listeverte.airesprotegees.fr/> Global initiative (IUCN World Commission on Protected Areas) aimed at characterising the “effective management and fair governance” of a protected area with respect to the commitments under the Convention on Biological Diversity (Aichi Biodiversity Target 11).

implementation remains flexible, progressive and non-regulatory in their content. MNPs are established through a multitude of negotiations and consultations with field stakeholders and local authorities. This facilitates the acceptance of this management model and the possibility of defining MPAs more rapidly and across larger areas than in the case of other types of MPAs (e.g. national parks, nature reserves)²⁵. Finally, the consultation process does not end with the creation of the MNP but rather continues within the Management Board for the development and implementation of the management plan, the issuing of opinions, the implementation of action plans, etc.

Driven by an *a priori* non-restrictive governance mechanism, it then allows members of the Management Board to negotiate and express their own expectations and proposals in terms of regulatory changes in the park's management. It is a sign of significant openness and restored balance in what was historically sovereign governance by the State's maritime authority. However, its practical implementation remains more complex at institutional level and in the capacity to mobilise a very substantial collegial body. The choice of exhaustive representation is a source of legitimacy, but also of heterogeneity among its representatives, whose interests may be conflicting and may dilute the issues, responsibilities and management objectives. The main risk is that of promoting a political or categorial form of management, in which the relationships between the different groups of stakeholders and field managers are dominated by power struggles, placed under the challenging arbitration of the State. This parameter can also be a factor behind non-decision or stalemate situations in which the pursuit of certain objectives grinds to a halt, due to the context and the clash between issues and conflicting interests within the Management Board. The effective and dynamic nature of the participatory model lies at the heart of our investigation, in connection with the essential role of expertise in supporting the Management Board. Within a park, the coordination between expertise and decision-making remains a determining factor in implementing and assessing the management strategy and in legitimising regulatory proposals and orientations.

²⁵The observation is valid in inhabited or visited areas (see for instance the contrary example of the extension of the French Southern Lands National Nature Reserve), and "new formula" national parks (after the law of 2006) have been extended (Guadeloupe, Port-Cros) or created (Calanques) relatively quickly given that they are built on the same decentralised approach.

Finally, the relevance of the park model fits within a long-term time frame, hence the entirety of the effects produced cannot yet be assessed with sufficient hindsight. An MNP's immediate decision-making capacity remains low, unstable and delegated by State-level authorities. The Management Board may occasionally be asked (by the State) to provide assent; it may also initiate local public policies, but it remains dependent on funding and the provision of operational resources by the MPA Agency, a public establishment under the authority of the Ministry. Its action focuses more on a gradual appropriation by the members of the Management Board of the issues at stake within the park. It will take time for the legitimacy of its action to be asserted, or even empowered, in order to produce and apply its decisions in compliance with its objectives. In fact, the management plan sets out the targets to be reached and the deadlines for achieving them based on a 15-year agenda. MNPs remain the key reference for a territorialised form of governance and the regular evaluation of its effectiveness by its own stakeholders.

More broadly, the question of assessing the operation of this tool is raised today, between a local approach to effective management through park dashboards and criteria for effective management and fair governance set out at international level (IUCN Green List). Based on a grid of the main characteristics of a well-managed Marine Nature Park, today it is possible to pre-identify criteria that could provide more complete information both to Management Board members on their actions and to the State in relation to the implementation of a specific public policy and its effectiveness, while preparing MNPs to apply for international accreditations in light of their good management. The practical application of this work still requires in-depth discussions between social science researchers, managers and the relevant institutions.

Thus, further study of the Management Board as a tool appears necessary, by bringing in political science alongside the other human and social sciences already focusing on the subject, such as anthropology, sociology and geography²⁶. This complementarity of disciplines would provide insight into

²⁶ See in particular the introductory chapter of the book by Doyon, S. and Sabinot, C., *Anthropologie des espaces côtiers et de la conservation environnementale*.

transfer and complementarity phenomena between territorial governance and national policy, the relationships between the State, decentralisation, participatory democracy and interest groups present (Pasquier, Simoulin and Weisbein 2007) on issues relating to Marine Nature Parks and in the field of MPAs, with a view to both theoretical analysis and empirical action.

References

Actes du 3^e colloque national des aires marines protégées. Agence des aires marines protégées, 6-8 octobre 2015, Brest.

Alphandéry, P. Fortier, A. (2001). *Can a territorial policy be based on science alone? The system for creating the Natura 2000 in France*, *SociologieRuralis*, vol 41, n°3: 311-328.

Barcelo, A. and Boudouresque, C.F. 2012. Rôle de la recherche dans un parc national : 50 ans de recherche dans le Parc national de Port-Cros. *Bull. Soc. Zool. Fr.*, 137 (1-4): 11-24.

Bérard, Y. and Crespin, R. (2010). *Aux frontières de l'expertise. Dialogues entre savoirs et pouvoirs*. Rennes. Presses universitaires de Rennes, coll. Res Publica.

Billé R. (2004). *La gestion intégrée du littoral se décrète-t-elle ? Une analyse stratégique de la mise en œuvre, entre approche programme et cadre normatif*. Thèse de sciences de l'environnement, Ecole Nationale du Génie Rural des Eaux et des Forêts (ENGREF).

Blondiaux, L and Sintomer. (2002). L'impératif délibératif. *Politix*, 15 (57): 17-35.

Bremer S. and Glavovic, B. (2013). Mobilizing knowledge for coastal governance: re-framing the science-policy interface for integrated coastal management. *Coastal Management*, 41(1), 39-56.

Pêche, sel et flamants roses dans les Réserves de biosphère yucatèques au Mexique, Coll. Nord/Sud, 2015.

Callon, M., Lascoumes, P. and Barthe, Y. (2001). *Agir dans un monde incertain. Essai sur la démocratie technique*. Paris, Le Seuil, coll. La couleur des idées.

Chateauraynaud, F., and Torny, D. (1999). *Les sombres précurseurs : une sociologie pragmatique de l'alerte et du risque*. Paris, Editions de l'EHESS.

Charlier-Kerbiguet, M. (2004). *Vague d'experts en mer d'Iroise : logiques d'action, communauté de métier, mobilisation et production scientifiques des acteurs de l'environnement*. Thèse pour l'obtention du doctorat de sociologie par Muriel Charlier-Kerbiguet.

Chateauraynaud, F. (2008). Les mobiles de l'expertise. *Experts*, n°78: 122-125.

Collins, H. and Evans, R. (2008). *Rethinking expertise*. Chicago, University of Chicago Press.

Compain Y. Cazalet B. Galletti F. *L'extension des AMP en Méditerranée : d'un contexte général en mer semi-fermée à l'expérience de construction du parc naturel marin du Golfe du Lion (France)*, Chapitre IV pp. 133-168, in Féral F. et Salvat B. (dirs), 2014, *Gouvernance, enjeux et mondialisation des grandes aires marines protégées : recherche sur les politiques environnementales de zonage maritime. Le challenge maritime de la France de Méditerranée et d'Outre-mer*. Paris, L'Harmattan, Collection Maritimes, 218 pages.

Delclaux J., Besnard A., Mathevet R., (2015). Etre Conseiller scientifique d'un espace naturel protégé : qui, comment, pourquoi ? L'exemple du Parc national de Port-Cros (France, Méditerranée). *Scientific Reports of Port-Cros national Park*, 29: 249-254.

Delclaux, J. (2013). Les Conseils scientifiques et la gouvernance des parcs nationaux français. L'exemple du parc national de Port-Cros. Mémoire de fin d'étude AgroParisTech, DAA SPES, EPHE, CNRS, UMR 5175 CEFE, PNF, Montpellier: 1-72.

Deleuze, G. (1986). *Foucault*, Paris, Editions de Minuit.

Dahou, T. et al. (2004). La gouvernance des aires marines protégées : leçons ouest-africaines. *VertigO-la revue électronique en sciences de l'environnement*, 5(3).

Dahou, T. and Cormier-Salem, M.-C. (2009). *Gouverner la mer*. Paris, Éd. Karthala. Politique africaine, n°115.

David, G. *Aires protégées, espaces durables ?* Editeurs scientifiques Catherine Aubertin, Estienne Rodary/Montpellier : IRD Éditions, 2013.

Doyon, S. and Sabinot, C., *Anthropologie des espaces côtiers et de la conservation environnementale. Pêche, sel et flamants roses dans les Réserves de biosphère yucatèques au Mexique*, Coll. Nord/Sud, 2015.

Duran, P., and Thoenig, J. C. (1996). L'Etat et la gestion publique territoriale. *Revue française de science politique* : 580-623.

Epstein, R. (2009), « Après la territorialisation : le gouvernement à distance », in Vannier M. (dir.), *Territoires, territorialité, territorialisation. Controverses et perspectives*, Rennes, Presses universitaires de Rennes, pp. 131-139.

Epstein, R. (nov. 2005), « Gouverner à distance. Quand l'État se retire des territoires », *Esprit* : 96-111.

Folke, C., Hahn, T., Olsson, P., Norberg, J., "Adaptive governance of social-ecological systems", *Annu. Rev. Environ. Resour.*, 2005.

Gaudin, J. P. (2002). *Pourquoi la gouvernance ?* (Vol. 1). Paris. Presses de sciences po.

Godard, O., and Hommel, T. (2007). "Contestation sociale et organisation de l'expertise scientifique des risques environnementaux et sanitaires", *Politique et Sociétés*, 26 (2-3) : 27-43.

Féral F, Salvat B. (dirs), 2014, *Gouvernance, enjeux et mondialisation des grandes aires marines protégées : recherche sur les politiques environnementales de zonage maritime. Le challenge maritime de la France de Méditerranée et d'Outre-mer*. Paris, L'Harmattan, Collection Maritimes, 218 p.

Féral F. (2011) L'extension récente de la taille des aires marines protégées : une progression des surfaces inversement proportionnelle à leur normativité. *Revue Vertigo*, Hors-série 9, juillet 2011, <https://vertigo.revues.org/10998>.

Frickel, S. and Moore, K. (eds.). (2006). *The New Political Sociology of Science: Institutions, Networks, and Power*. Madison: University of Wisconsin Press.

Laborier, P. and Trom, D., (dir.). (2003). *Historicités de l'action publique*, Paris, PUF.

Lascoumes, P. (2012). *Action publique et environnement*. Paris, PUF, coll. Que-sais-je ?

Lascoumes, P. (2005). « Expertise et action publique ». *Problèmes économiques et sociaux*, n°912, mai 2005.

Lascoumes, P. (1994). *L'éco-pouvoir. Environnements et politiques*. Paris, L'Harmattan.

Lascoumes, P. and Le Galès P. (dir.). (2005). *Gouverner par les instruments*. Paris, Presses de Sciences Po.

Lascoumes, P. and Le Bourhis, J.-P. (1998). Le bien commun comme construit territorial, identités d'action et procédures. *Politix*, 42: 37-66.

Laurans Y. et al. (2013). Use of ecosystem services economic valuation for decision making: Questioning a literature blindspot, *Journal of Environmental Management*, 119: 208-219

Le Galès, P. (1995). Du gouvernement des villes à la gouvernance urbaine. *Revue française de science politique*, 45(1) : 57-95.

Le Meur, P.-Y. (2011). *Anthropologie politique de la gouvernance. Acteurs, ressources, dispositifs*. Sarrebruck, Editions universitaires européennes.

Leroy, P. and Salles, D. 2013. Stakeholders. In I. Casillo et al., (dir.) *Dictionnaire critique et interdisciplinaire de la participation*. Paris : GIS Démocratie et participation.

C. Mazé-Lambrechts and C. Meur-Férec, (2017) "Littoral", in N. Kada, R. Pasquier, C. Courtecuisse et V. Aubelle, *Dictionnaire encyclopédique de la décentralisation*, Berger-Levrault, p. 663- 668.

Mazé, C. et al. (2015b). Pour une anthropologie politique de la mer. *Revue internationale d'ethnographie*, 5: 189-202.

Mazé, C. et al. (2015a). Mazé, C., Poulard, F., Ventura, C., 2015, Dismantling, Reorganization, and Creation: The Introduction to Ethnology Museums: Culture, Politics, and Institutional Change. *Museum AnthropologyReview*, 9/ 1-2 : 35-56.

Mazé, C. (2014). *La fabrique de l'identité européenne. Dans les coulisses des musées de l'Europe*. Paris : Belin, Socio-histoires, 320 p.

Mermet, L. (2011). Strategic Environmental Management Analysis: Addressing the Blind Spots of Collaborative Approaches. *Working Papers* (5). Paris, IDDRI, Paris.

Mermet, L. et al. (2005). Analyse stratégique de la gestion environnementale : un cadre théorique pour penser l'efficacité en matière d'environnement. *Natures Sciences Société*, 13(2) : 127-137.

Offerlé, M. (1998). *Sociologie des groupes d'intérêt*. Paris : Montchrestien.

Pasquier, R., Simoulin, V., and Weisbien, J. (2007). *La gouvernance territoriale : pratiques, discours et théories*. LGDJ.

Rochette, J., Billé, R. (2013). Bridging the gap between legal and institutional developments within regional seas frameworks. *The International Journal of Marine and Coastal Law*, 28(3): 433-463.

Roger, A. and Bérard, Y. (dir.). (2015). "Sociologie politique des sciences". *Politix*, 3(111).

Roqueplo P. (1997). *Entre savoir et décision, l'expertise scientifique*. Paris, INRA éditions.

Saliou V. (2012). *Gouverner la mer. Jeux d'échelles et temporalités de l'action publique en Europe*. Thèse de science politique, Université Rennes-1.

Saliou, V. (2010). L'Europe en quête d'experts. Le cas des experts nationaux détachés à la Commission européenne sur la politique maritime, *In Y. Bérard Y. et R. Crespil (dir.). (2010). Aux frontières de l'expertise*. Dialogues entre savoirs et pouvoirs. Rennes, PUR, Res Publica : 83-98.

Salles, D. (2009). Environnement : la gouvernance par la responsabilité ? *VertigO - la revue électronique en sciences de l'environnement*, Hors-série 6, novembre 2009.

Salles, D. (2006). *Les défis de l'environnement. Démocratie et efficacité*. Paris, Syllepse, 248 pp.

Theys, J. (2002). La Gouvernance, entre innovation et impuissance. *Développement durable et territoires* [En ligne], Dossier 2 | 2002, published online on 01 November 2003, consulted on 02 January 2016.

Trépos, J. Y. (1996). *La sociologie de l'expertise*. Paris, Presses universitaires de France.

Van Tilbeurgh, V. (2009). La difficile gestation d'un Parc marin. *In R. Larrère, B. Lizet, M. Berlan-Darqué Histoire des Parcs nationaux, Comment prendre soin de la nature ?* Paris, Edition Quae: 111-131.

Van Tilbeurgh, V. (2007). *La mer d'Iroise, négociations sur le principe de protection*. PUR, Rennes.

Van Tilbeurgh, V. (2006). Quand la gestion intégrée redessine les contours d'une aire protégée : le cas du Parc marin d'Iroise, *VertigO - la revue électronique en sciences de l'environnement*, vol. 7, n° 3 l. URL: <http://vertigo.revues.org/170>.

Van Tilbeurgh, V. (2002). L'institution de la mer d'Iroise comme nature remarquable. *Natures, sciences et sociétés*, 10, 4: 31-37.

Weigel J-Y, Féral F., Cazalet B. (Ed.), 2007 *Les aires marines protégées d'Afrique de l'Ouest : Gouvernance et politiques publiques*, Presses Universitaires de Perpignan (PUP) - IRD, 232 p.

Weigel J-Y, Féral F., Cazalet B. (Ed.), 2011 *Governance of marine protected areas in least developed countries. Case studies from West Africa*, FAO Fisheries and Aquaculture Technical Paper No 548, Rome, FAO, 78 pp. <http://www.fao.org/docrep/015/i2378e/i2378e.pdf>.