

Chapter 2

Patrimonial Economics and Water Management: A French Case

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2.1 Issues at Stake in Contemporary Water Economics

Applying traditional economic tools to water resources poses many problems for economists because, like most natural resources, water resources do not lend themselves to market exchanges, given the multiple factors that affect their use and management. Nonetheless, since the 1950s, a growing body of literature has been dedicated to water economics, attesting to the serious problems that managing this resource presents both qualitatively and quantitatively. Now, instead of considering water as a specific asset—simultaneously a production factor, a final consumption good, an element contributing to the identity of a user community, and an ecosystem life support—economists have undertaken to mobilize the categories of neoclassical economics and re-qualify certain non-market characteristics of water in terms of the market economy. On the international scale, this undertaking has contributed to the

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recognition of water as an economic good.¹ Today, this recognition guides numerous programs supported by development agencies and international donors.

However, starting in the 1970s, international environmental law invested natural resources with another dimension that recognizes a patrimonial nature, which was sometimes presented as a counterpoint to the market dimension. In this context, patrimonialization processes refer to social constructions aimed at identifying material or immaterial objects, often inherited from the past, which have to be protected, managed, and transmitted to future generations. It was from this perspective that the anti-globalization movements, referring to the notion of “common heritage of mankind,” have underscored the dangers of water commodification, at least since the end of the 1990s. Sometimes without knowing it, their arguments echo research conducted in France over several decades. In fact, patrimonial management, a research trend initiated by research/intervention operations in the mid-1970s, tries to reconcile stakeholders in conflict by proposing a local negotiation process. More recently, a group of economists have tried to reconsider economic analysis, establishing patrimonial economics as a new interpretative framework, an alternative to the market framework.²

Thus patrimonial and commodification dimensions, often seen as antagonistic, are two recurring aspects in freshwater management and water services fields.³ Stakeholders often forget this ambivalence of water policies, where those two dimensions coexist, contributes to the definition of varied governance forms, which can be concretely observed on every scale.

The main lessons from the two simultaneous trends of commodification and patrimonialization highlight the need to go beyond the neoclassical economic approach, which alone is insufficient for understanding the patrimonialization processes. In fact, neoclassical economists have gradually assimilated water as a market good, ignoring culture, identity, territorial specificities, and other variables that are critical to understanding water management policies. In contrast, patrimonialization processes are clearly taken into account by management and

¹ According to Principle 4 of the Dublin Statement on Water and Sustainable Development (Dublin Statement 1992).

² The overview of the commodification and the patrimonialization of freshwater and water services constitutes one of the guiding principles of the CNRS Urban Water Research Network “rés-EAU-ville.” This research group has organized several multi-disciplinary scientific conferences in France on water commodification (Paris, March 2003) and on water as a common patrimony (Arras, March 2007). These events resulted in two collective publications (Baron 2005; Petit 2009). This article permits us to reposition the terms of the debate from an economic perspective.

³ The terms “legacy,” “heritage,” or even “patrimony” refer, in English, to notions that cannot properly circumscribe this notion of “patrimoine.” The expression refers to legal systems inherited from Roman law, away from common law traditions. The authors have chosen the last expression (patrimony) because of its similarity with the French term “patrimoine” (and even “patrimonio” in Spanish). But the notion of patrimony is beginning to spread; Morehouse (2011) applied it when discussing public trusts in the USA.

economics through a new analytical framework for patrimonial dynamics that can be demonstrated using the example of French water policies.

2.2 The Standard Economics of Water Resources

After World War II, many water infrastructure projects were carried out all over the world. These projects involved engineering know-how for obtaining, diverting, and storing water for human needs, including dams for irrigation or hydropower, networks for conveying drinking water, and flood control. Engineers and economists applied the principles of cost-benefit analysis to measure the impact of these large projects. As Eckstein (1958, p. 1) highlighted, “As the economy has developed, the need for these activities has also increased. The value of properties susceptible to flooding increased, the demand for energy doubled and doubled again, the traffic on our rivers expanded greatly, the need for water became more critical in many regions, and even the recreational uses of our lakes and rivers multiplied over the last few years.” Thus, the economic value of water was recognized, and a set of relatively sophisticated methods was mobilized to calculate the augmentation of well-being these development projects produced.

The books by Kneese (1964) and Kneese and Bower (1968) ushered in an important stage in the formation of (neoclassical) water economics. Extending the work of Pigou (1920), these authors recommended addressing the problems of water pollution by setting up a tax or a subsidy, determined so that the externalities would be internalized. Thus, to overcome the difficulties of entering water into the framework of the market economy, the idea is to focus on the price of water so that it reflects the consideration of non-market phenomena. The search for efficiency remains the primary objective and guides the way the neoclassical economists understand these problems. However, if certain principles derived from these propositions are today institutionalized in a number of public water policies, internalizing the externalities is rarely total (Commissariat Général du Plan 1997), and their measurement is conditioned by hypotheses on the potential costs of the damages, which only take into account very imperfectly long-term phenomena.

Both types of research mentioned above gradually led to the creation of water resources economics, a sub-discipline that even has textbooks. To be resolutely prescriptive, Shaw (2005) and Griffin (2006) adopted a microeconomic viewpoint—producer and consumer theories and theorems of welfare economics, for example—as their theoretical perspective. The fundamental criterion is Pareto efficiency: an efficient allocation takes place when any change improving at least one individual’s well-being implies reducing any other individual’s well-being. The issues of equity are considered marginal because these economists believe the search for equity is political. However, despite this restriction of the field of investigation, some analytical problems soon appeared.

Thus, Shaw (2005, p. 35) observed that, if the basic microeconomic approach is to be followed, it is preferable to pretend water is a private property. This often is not the case, as he himself admitted. In fact, in the water domain, property rights issues are complex. In general, several appropriation systems coexist and are even superposed on each other, including within the same region or the same country. In addition, contrary to what can be read in certain general environmental economics textbooks, which adopt the point of view defended by Hardin (1968), the neoclassical theoreticians of water economics recognize the existence and legitimacy of common property regimes.⁴

Furthermore, although these authors have a marked tropism toward market mechanisms, they remain very prudent as to the creation of water markets, simply transposing standard economic theory, especially the Coase theorem: if trade in an externality is possible and supposing no transaction costs, negotiation will lead to an efficient outcome regardless of the initial allocation of property rights.⁵ They are well aware that the externalities are not simple to manage and the transaction costs are generally high. In fact, the expression “water markets” is misleading. The form that market institutions take makes them look like a public policy instrument more than a perfectly competitive market, as they are depicted in microeconomics textbooks (Dales 1968).⁶ As numerous studies have shown (Aguilera-Klink and Sánchez-García 2005; Bauer 2004), the transactions that take place within these exchange systems are far from the ideal described by the adepts of “free market environmentalism” (Anderson and Snyder 1997).

Thus it is not astonishing that, in the end, the authors of contemporary water economics textbooks want hybrid institutional arrangements. Griffin (2006, p. 240) asserted that “managing all these things efficiently is a considerable challenge and compels us to construct a mixed system of rules—some market oriented, some not, all intertwined.” However, what are the appropriate normative references that will

⁴ Griffin (2006, p. 102) thus wrote: “In any case, one cannot conclude that certain institutions are inefficient merely because they constitute common property, as the phrase ‘tragedy of the commons’ insinuates.”

⁵ Shaw (2005, p. 29) observed: “In fact, economists may oversimplify things when they advocate ‘moving’ from lower to higher economic uses. Some water economists have concluded that the potential for markets has been overestimated, and now recommend slight modifications to conventional water pricing schemes to achieve efficiency.”

⁶ In his seminal article, Dales (1968, pp. 803–804) wrote: “It should be noted, finally, that the market in pollution right is not a ‘true’ or ‘natural’ market. In natural markets, price creates two-way communication between sources of supply and demand and affects amounts supplied as well as amounts demanded [...] My market provides only one-way communication. It transmits the government-owner’s decisions about the use of water to the users of the asset, but there is no feedback from the users to the owner [...] The price signals that this government gets from the market are ‘false’, in the sense that they are largely echoes of its own arbitrary decision about the supply of rights. The market proposed in this paper is therefore nothing more than an administrative tool.”

allow us to evaluate the efficiency of these institutional arrangements? This question deserves to be asked because the fragility of the neoclassical reasoning, including the Pareto criterion, is well known. The authors of the above-mentioned textbooks remained most circumspect about the fact that general equilibrium stability and convergence have not been demonstrated.⁷ In fact, the opposite tends to be true. In other words, the market mechanisms are missing in the analytical framework proposed by Arrow and Debreu (1954).

2.3 The Reference to a Common Patrimony

By considering water as an economic good like any other and conveying externalities that must be internalized using monetary incentives, neoclassical water economics transposes the supposed laws of the market economy to the management of a resource whose characteristics are not well suited to this type of exchange. This way of conceptualizing the water economy discards its nature of common patrimony and leads to denying water's specificity: it is both a potential exchange resource and an asset to be preserved for the production and reproduction needs of human communities. For the past 30 years, this reference to a common patrimony has supported sizeable research that questions the neoclassical economic analysis of water resources.

2.3.1 *Patrimonial Management*

Patrimonial management was born in the 1976 study conducted by Bertier, de Montgolfier, and Ollagnon about the Alsatian aquifer in northeastern France. This study was supported by the Office of the Rationalization of Budgetary Choices (RBC) of the French Agricultural Ministry. Originally, this office was involved in creating mathematical models applied to decision making, leading to cost-benefit economic valuations (La Branche and Warin 2006; Mermet 2007). However, this initial study marked a methodological turning point (Ollagnon 1979).

In fact, this study questions the central hypothesis of the neoclassical economic approach, which holds as true the idea that it is the monetary underestimation of the relationships between environmental objects that causes the management problems encountered—agricultural pesticides polluting wetlands, conflicts on water allocation in dry regions, etc. The researchers in the RBC office observed that economic valuation often tends to exacerbate conflicts of interest that structure environmental

⁷ The general equilibrium model is a model of the large-scale behavior of market economy stating that with some assumptions and under certain conditions, there exists a set of equilibrium prices (economy is in equilibrium when prices are set so that supply equals demand in each market).

problems because it privileges certain objects, certain activities, or certain stakeholders who are more accustomed to the procedure or are faster than the others to understand the market logic and the monetary indicators. More generally, for the authors of this study, who based their reasoning on combining the systemic approach and organizational sociology,⁸ it is a question of exceeding the monolithic framework of the broad decisional-approach types that then prevailed—the economic approach, which gives a central position to market relationships; the ecological approach; and the technical-administrative approach. These authors proposed a “new framework for thinking” about natural resource management that takes the common patrimony as a frame of reference (Ollagnon 1979).

Managing a common good such as water already was the subject of debate. On one hand, the neoclassical economic approach, based on Hardin’s developments (1968),⁹ denied any possibility of the efficient management of a common good, considering that “what belongs to everybody ends up belonging to nobody” and generates such behaviors as “first come, first served.” On the other hand, economic anthropologists and institutional economists (Ciriacy-Wantrup and Bishop 1975) highlighted that common property is one of the most credible methods of resource appropriation and management for which many convincing examples are known, particularly in developing countries.

This patrimonial management approach, which is the interface between research and public action, follows the latter opinion. Patrimony must be understood as “the set of tangible and intangible elements that contribute to maintaining and developing the identity and the autonomy of its holder over time and space by adapting to an evolving environment” (Ollagnon 1989, p. 265). The holder in question is the “patrimonial group,” which must establish itself around the natural resource to be managed. The emphasis is then put on some organizational principles, which must lead to the implementation and the smooth running of this group. In fact, patrimonial management is a collective management process that requires negotiation between the various stakeholders concerned, such as the representatives of public authorities, economic world, and population.¹⁰

⁸ A systemic approach considers a system in its totality, its complexity, and its own dynamics and studies interaction between the diversity of elements linked together within the system. This study leads to the determination of rules that can modify the system or design other systems.

⁹ In his famous article, “The Tragedy of the Commons,” Hardin states that common property management leads inescapably to the over-exploitation of the resource. He has been strongly criticized, however, because he confuses “common property” with “open access.”

¹⁰ In addition, this patrimonial perspective is constructed in comparison to the 1964 French Water Law. According to Ollagnon (1979, p. 50), “by creating consultative structures, by calling the users and the local authorities to negotiate,” this law “considerably increased the efficiency of administrative action.” It offers the framework that makes it possible to implement the patrimonialization process, which Ollagnon called for when he considered the Alsatian aquifer. More precisely, he wanted to create a water patrimonial institution, which in his opinion would enter into the framework of the 1964 law under its Article 11. This would be a regional administration composed of elected officials responsible for developing a water policy by making the different stakeholders negotiate.

2.3.2 *Patrimonial Economics*

This patrimonial approach seemed to slow down at the end of the 1980s with the publication of the work edited by de Montgolfier and Natali (1987). However, the reflection was launched again by the publication of Godard's article (1990), which proposed a conventionalist interpretation of this approach that mobilized the "cités"¹¹ analytical framework put forth by Boltanski and Thévenot (1999, 2006). This reflection led environment and natural resources economics to the arena of decisional legitimacy and justice criteria. In fact, nature suffers from a lack of legitimacy because of the diversity of the principles that are invoked when nature is managed or protected.

While Ollagnon (1989, p. 260) spoke of the need to develop a "meta-language" in the context of patrimonial management, Godard (1990) analyzed the patrimonial approach as an emerging compromise—obviously still fragile—that would make it possible to go beyond these oppositions of legitimacy. Thus, if the patrimonial approach is highly rooted in the *cité domestique* (domestic world) because of the importance of patrimony transmission, other *cités* can be found: the *cité industrielle* (industrial world), because of the significant recourse to scientific notions and the desire to plan for the long-term management of the given resources, and the *cité civique* (civic world), because everyone who feels concerned about a given natural patrimony has the legitimacy to be involved in the debate. The gamble of an environmental manager is that the plurality of legitimacy systems recorded in the center of the notion of natural patrimony does not appear as an obstructive element (Godard 1990). On the contrary, it creates a dynamic between the different frames of reference and results in the stakeholders negotiating the modalities of long-term natural resource and environmental management and committing to these modalities.

Godard's article offered another research perspective. In neoclassical economic analysis, patrimony is often reduced to all the assets held by an agent. However, Godard (1990, p. 230) highlighted the economic specificity of patrimony, citing Barel (1984), who affirmed that capital is managed to increase it, whereas patrimony is managed to transmit it. In this way, the economic analysis of patrimony was launched again in the twenty-first century around the relationships that are formed between market regulations and non-market regulations (Barrère et al. 2005, 2007).

¹¹ Boltanski and Thévenot (2006) proposed a sociopolitical model based on six "orders of worth" or "common worlds" ("*cités*" in French). This model describes the conventions (or languages of coordination) used by stakeholders in the majority of ordinary situations or conflicts. Neoclassical economics resembles one of these conventions: the "market world." However, there are other conventions to define the "common good": the "industrial world" and the "civic world," for example.

From an institutionalist perspective close to the one sketched by Polanyi et al. (1957), one of the structuring hypotheses of this research program (Barthélemy and Nieddu 2007; Barthélemy 2007) is that market relationships can only work because they are based on non-market relationships, and vice versa. These non-market relationships are based on patrimonial relationships because they aim to ensure the persistence and the reproduction, over time and space, of the elements that are considered to be the initiators of existence and perpetuation of human communities.

Taking the spatial and temporal dimensions into consideration means that, contrary to the neoclassical economic theory,¹² patrimonial economics highlights the importance of both patrimony's historic and territorial roots, even a form of relativism that contrasts with the universalist vocation of neoclassical economics. Patrimonial economic relationships, which aim to produce and distribute the patrimonial goods and/or objects, assign specific resources through institutions, standards, and rules appropriate for patrimonial logic adopted by the given groups. These groups define the allocation methods and particular payment modalities, leading to the consideration of patrimonial values and prices, which differ from market values and prices.

This comes back to the lessons of the old institutional economics (Commons 1934), which posited that the multiplicity of social and economic relationships implied a multiplicity of evaluation and deliberation processes. The idea is not to assume the superiority of patrimonial relationships over market relationships, but to bear in mind that these two types of relationships designate institutions that cannot survive without one another. Putting market relationships and patrimonial relationships in conflict allows us to better understand the institutional transformations that can be observed concretely in certain domains of natural resource management (Barthélemy et al. 2005). Thus, the development of this new patrimonial economics helps us envision a number of public policies, highlighting the mutual influences of private property and common patrimony in the definition and implementation of these policies, such as the one related to water management in France (Barthélemy et al. 2004, 2005).

2.4 Water Management in France: A Progressive Integration of Patrimonial Logic

While the arguments used in the 1960s to justify water fees in France were based on the neoclassical economic reasoning, the institutions and practices progressively established in water management at the different territorial scales also illustrate a process of patrimonialization of this common resource. In other words, the rational

¹² This theory generally proposes a vision of reversible time—that is, a historic—and a vision of space based on distances and cost differences such as production and transport costs.

Table 2.1 An overview of the water legal framework in France

Year	Main purposes and definitions
1964 French Water Law	Decentralization of water management: six basin agencies (later called water agencies) responsible for regional-scale management at the watershed level (Adour-Garonne, Artois-Picardie, Rhin-Meuse, Loire-Bretagne, Rhône-Méditerranée and Corse, and Seine-Normandie) Fees collected are used to subsidize water protection investments and operating costs ^a
1992 French Water Law	Further decentralization: new tools for water planning at watershed level (SDAGE: Master Plan for Water Resource Management and SAGE: Local Water Management Plan) to reinforce the protection of water resources (quality and quantity) Water defined as “common patrimony of the Nation”
2000 European Water Framework Directive (WFD)	Achievement of “good ecological and chemical status” for all waters bodies by 2015 Water is defined both as a commercial product and a patrimony: “a heritage which must be protected, defended and treated as such” Three focus areas: integrated management, full cost recovery, and public participation
2004 Transposing Law of the European WFD	Application and observance of the WFD is the responsibility of France Recognition of the need to combine approaches to managing water with approaches to managing space
2006 French Law on Water and Aquatic Environments (LEMA)	Update of the French legislative framework and administrative reorganization Territorialization of the French government’s approach to water management based on the notion of river basin: reinforcement of the role of water agencies, strengthening of the binding character of the SAGE, encouragement for the establishment of EPTBs (Public Territorial River Basin Establishments) Creation of the ONEMA (French National Agency for Water and Aquatic Environments) Improvement of water management transparency

Source: Authors

^aNote the Rhône-Méditerranée and Corse Water Agency is responsible for two river basin committees: the Rhône-Méditerranée River Basin Committee and the Corse Basin Committee. The latter was created in 2002.

optimizing agent, without totally disappearing, had to deal with patrimonial communities responsible for managing water.

In 1959, in a general context of high interventionism, at a time when pollution was emerging as a new problem, France’s Commissariat Général du Plan (CGP)¹³

¹³ General Commissariat for Economic Planning.

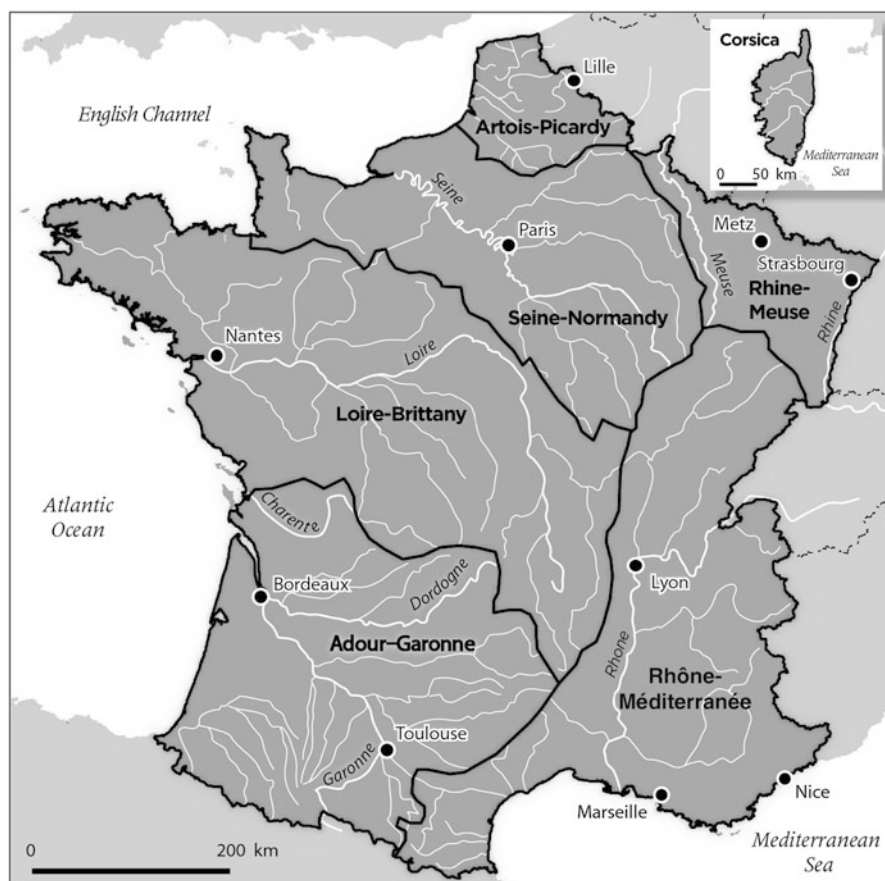


Fig. 2.1 The six French water agencies (Source: Brun and Lasserre 2012)

created a Water Commission whose work resulted in the 1964 Water Law (Table 2.1). This law created basin agencies, later called water agencies (WAs). These agencies were public institutions responsible for collecting the fees that were supposed to finance the public works projects to improve water quality at the large river basin scale (Fig. 2.1). Based on a basin committee that represented users, territorial authorities, and the national government, this agency system is often presented as a reference in terms of applying Pigovian economic analysis¹⁴ and the polluter pays principle (OECD 1997, 2005).

Nicolazo (1997), who participated in the implementation of the WAs, affirmed that welfare economics inspired the fee system, especially the research of Kneese (1964). Still, the market justification, more than a source of inspiration, seems to be an ex-post argument because “in the context of an economic management of water,

¹⁴ State intervention by means of taxation to avoid externalities.

it is essential to take into account the temporal and spatial conditions and thus hydrological data of each basin” (Nicolazo 1997, p. 54). However, the recommendations of the neoclassical economic theory are supposed to be optimal, independent of the temporal and spatial variables.

In fact, what is presented as the application of market logic to water resources can be interpreted in terms of patrimonialization. The collective management of water in each river basin is inspired from English or German examples, and although the fees have been established, they have never really played the role of Pigovian internalization instruments (Barraqué 1997). In addition, in its 1997 report evaluating the water agencies, the CGP observed several inefficiencies. It found, for example, that the fees are too low and insufficiently differentiated between territories, that hardly any arbitration occurs with respect to the efficiency of the invested funds, and that little attention is paid to agricultural pollution. The CGP (1997, p. 21) no longer recognizes the polluter pays principle in a system that actually redistributes the burden between users, compensating the different stakeholders in the perspective of solidarity, and thus is more representative of the polluter policyholder principle than the polluter pays principle.

More than 25 years after the promulgation of the 1964 Water Law, the assessment of the national water conference held in Paris in 1991 showed insufficiencies remained, especially in the domain of environmental protection. Natural resource protection and pollution problems were found at the center of numerous use conflicts. It was in this context that the 1992 Water Law affirmed that “water is a part of the nation’s common patrimony.” In addition, it underlined the objective of a “balanced management of water resources,” trying to reconcile the different uses and establish more basin-scale solidarity.

The negotiated planning measures concretely reinforced the process of patrimonialization, not only at the level of large river basins, where the basin committees already were elaborating a Master Plan for Water Resource Management (SDAGE),¹⁵ but also at the local level, with the creation of local water boards. These boards bring together the representatives of users, territorial authorities, and the national government and define the “new rules of the game” through a “dialogue designed to establish a planning system of the legitimate uses of water,”¹⁶ taking the form of a Local Water Management Plan (SAGE). The administrative memo for implementing the SAGE decree reveals the evolution in the reasoning because in this document, the “major innovations” of local planning are, first, “the conservation of the aquatic environments and the ecosystems, in the same way and at the same level as the protection and development of water resources and their uses,” then “the importance of public dialogue aiming at the collective acceptance of

¹⁵ SDAGE: Schéma Directeur d’Aménagement et de Gestion des Eaux. SAGE: Schéma d’Aménagement et de Gestion de l’Eau.

¹⁶ According to an administrative memo of October 15, 1992 (Circulaire du 15 octobre 1992 relative à l’application du décret n° 92–1042 du 24 septembre 1992 portant application de l’article 5 de la loi n° 92–3 du 3 janvier 1992 sur l’eau, relatif aux schémas d’aménagement et de gestion des eaux).

choices,” and finally “the legal impact of these plans.” The priorities of this territorial water policy were far different than the market logics announced in the 1964 Water Law. Legitimacy, acceptance, and public debate all refer to the indispensable variables taken into account when a community collectively manages a patrimonial resource.

Beyond the intentions expressed in the wide-ranging water resource laws, the patrimonial dynamic can be observed concretely in the creation and implementation of the SAGE. The water policy specifics are not dictated by law; instead, the details are left in the hands of local stakeholders, organized in the local water boards. Thus, water resource management is the result of a deliberative process, in which local stakeholders must define, rank, and arbitrate the different options for public action. This often means drawn-out procedures, mostly due to the time needed to organize the use conflicts. In fact, in many water basins, the local water boards form the primary meeting place for users who often do not know each other well, if at all (Calvo-Mendieta 2005).

Thus, the local water boards encourage stakeholders to share a space in which the different representations as well as the potential conflicts can be expressed. In this sense, these boards appear as the place where a common cognitive framework can be elaborated, encouraging the support of the stakeholders participating in this common representational space. This said, like all collective action measures, these “territorialized forms of water resource governance” (Barthélemy et al. 2004, p. 349) are not exempt from the power struggles and power relationships that influence the decision-making process. The collective construction of rules requires building compromises between the various self-interests.

The evolution of the legislative framework at the beginning of the twenty-first century does not represent an upheaval of the founding principles of the French water policy. The European Water Framework Directive (WFD), which has as one of its main advantages the harmonization of a multitude of sector-based directives, was adopted in 2000. This directive precipitated the French legislative reform, which was threatened after the bill was abandoned in 2002. The preamble of the WFD, which states “water is not a commercial product like any other but, rather, a heritage which must be protected, defended and treated as such” (EC 2000, p. 1), underlines the ambivalent nature of this resource: it is both a commercial product, though not like any other, and a patrimony.¹⁷

This ambivalence is treated in the WFD by an injunction of participation and by the need, repeated many times, to use economic instruments, with the objective of “full cost recovery.” A specific law transposing this framework directive in France was adopted in 2004, but it was the 2006 French Law on Water and Aquatic Environments (LEMA)¹⁸ that updated the legislation, proposing a necessary administrative reorganization. In addition, the principle of negotiated territorial planning

¹⁷ The WFD uses the term “heritage,” whereas the authors use the word “patrimony.”

¹⁸ LEMA: Loi sur l'Eau et les Milieux Aquatiques.

was affirmed and strengthened, as the local plans are now enforceable against a third party.

This overview of water policies in France underlines the patrimonial dynamics that make it possible to explain the way in which water stakeholders construct their institutions and how they interact within them. These interactions do not take place in a context dominated by market logic, although French water policies were for a long time presented as an ambitious attempt to implement an internalization of externalities, in the sense of neoclassical economic theory.

2.5 Common Patrimony: A New Paradigm for Water Policies?

Water occupies a special place in international debates because, unlike climate change, desertification, and biodiversity, no international convention supervises its long-term management. Multi-national companies in the water domain have invested this empty space at the initiative of institutions such as the World Water Council or Global Water Partnership. These institutions were founded on public-private partnerships and, over the years, have acquired certain legitimacy in putting the most relevant questions on the agenda. The recognition of water as an economic good, which was a subject of debate at the beginning of the 1990s, is today a fait accompli in the consecutive World Water Forums.¹⁹ This change in status highlights the influence of the dominant economic approach in the water domain. This approach is equally influential in international institutions such as the World Bank.

However, at the same time, these institutions affirm the necessity of setting up a dialogue or user participation, especially at the local level, to manage water resources, thus recognizing their patrimonial dimension.²⁰ Reconciling these two logics—market and patrimony, sometimes presented antinomically—is nonetheless difficult from a theoretical perspective. Having recourse to only the neoclassical economic approach is insufficient to understand this dynamic. In fact, this approach tends to systematically reduce the non-market dimension to the market dimension, resulting in the deviation of the intrinsic common patrimony characteristics. The contributions of patrimonial management and Godard's conventionalist work have pointed out the limits of this standard economic approach, illuminating the notion of patrimony as a compromise.

Patrimonial economics pushes this reasoning even farther by providing the foundations of a paradigm that permits us to analyze the patrimonial dimension more autonomously, liberating the analytical frameworks from the market frame of reference. The evolving French water policies are a good illustration of this

¹⁹ The World Water Forum is organized every 3 years by the World Water Council and aims to put water issues on the international agenda. The last one was held in Marseille, France, in March 2012.

²⁰ The first World Water Forum in 1997 had for its primary theme "Water: The World's Common Heritage."

analytical transformation, one that permits us to understand these policies as a result of the tension between market and patrimonial influences. It also allows us to insist on the necessity of renewing the analytical framework about such common goods as water.

References

- Aguilera-Klink F, Sánchez-García J (2005) Water markets in Tenerife: the conflict between instrumental and ceremonial functions of the Institutions. *Int J Water* 3(2):166–185
- Anderson TL, Snyder PS (1997) Water markets priming the invisible pump. CATO Institute, Washington, DC
- Arrow KJ, Debreu G (1954) Existence of an equilibrium for a competitive economy. *Econometrica* 22:265–290
- Barel Y (1984) *La société du vide*, Seuil, Paris (coll. “Empreintes”)
- Baron C (2005) *Société civile et marchandisation de l’eau. Expériences internationales*, vol 64, Sciences de la société. Presses Universitaires du Mirail, Toulouse
- Barraqué B (1997) Les Agences de l’eau et la question du patrimoine commun, en France et en Europe. Rapport pour le Commissariat général du Plan, Paris
- Barrère C, Barthélemy D, Nieddu M et al (2005) Réinventer le patrimoine. De la culture à l’économie, une nouvelle pensée du patrimoine ? L’Harmattan, Collection “Gestion de la culture”, Paris
- Barrère C, Barthélemy D, Nieddu M et al (2007) Formation et gestion des patrimoines. *Économie appliquée* 60(3):7–282
- Barthélemy D (2007) Économie identitaire versus économie marchande. *Économie appliquée* 60(3):57–84
- Barthélemy D, Nieddu M (2007) Non-trade concerns in agricultural and environmental economics: How J.R. Commons and Karl Polanyi can help us. *J Econ Issues* 41(2):519–527
- Barthélemy D, Nieddu M, Vivien FD (2004) Externalités ou production de patrimoines ? Les enseignements de travaux récents sur l’agriculture et l’environnement. *Géographie Économie Société* 6(3):331–352
- Barthélemy D, Nieddu M, Vivien FD (2005) Économie patrimoniale, identité et marché. In: Barrère C et al (2007). pp 121–150
- Bauer CJ (2004) Siren song: Chilean water law as a model for international reform. RFF Press/The Johns Hopkins Press, Washington, DC
- Boltanski L, Thévenot L (1999) The sociology of critical capacity. *Eur J Soc Theory* 2(3):359–377
- Boltanski L, Thévenot L (2006) On justification. *Economies of worth* (English trans). Princeton University Press, Princeton
- Brun A, Lasserre F (eds) (2012) *Gestion de l’eau*, Presses de l’Université du Québec
- Calvo-Mendieta I (2005) *L’économie des ressources en eau : de l’internalisation des externalités à la gestion intégrée. L’exemple du bassin versant de l’Audomarois*, Ph.D. dissertation, USTL, Villeneuve d’Ascq, 345p
- Ciriacy-Wantrup SV, Bishop RC (1975) ‘Common-property’ as a concept in natural resources policy. *Natural Resources J* 14(4):713–727
- Commissariat Général du Plan (1997) Évaluation du dispositif des Agences de l’eau: rapport au gouvernement. La Documentation Française, Paris
- Commons JR (1934) *Institutional economics. Its place in political economy*. Macmillan, New York
- Dales J (1968) Land, water and ownership. *Can J Econ* 1(4):791–804
- de Montgolfier J, Natali JM (eds) (1987) *Le patrimoine du futur. Approche pour une gestion patrimoniale des ressources naturelles*. Économica, Paris, 250 p

- Dublin Statement (1992) The Dublin Statement on Water and Sustainable Development. Available via <http://www.wmo.ch/pages/prog/hwarp/documents/english/icwedece.html#p4>
- EC (European Commission) (2000) Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy, Official Journal L 327/1, Brussels, 22 Dec 2000
- Eckstein O (1958) Water-resource development. The economics of project evaluation. Harvard University Press, Cambridge, MA
- Godard O (1990) Environnement, modes de coordination et systèmes de légitimité: analyse de la catégorie de patrimoine naturel. *Revue économique* 41(2):215–241
- Griffin RC (2006) Water resource economics. The analysis of scarcity, policies, and projects. The MIT Press, Cambridge, MA
- Hardin G (1968) The tragedy of the commons. *Science* 162:1243–1248
- Kneese AV (1964) The economics of regional water quality management, resources for the future. The Johns Hopkins Press, Washington, DC
- Kneese AV, Bower BT (1968) Managing water quality: economics, technology, institutions. Resources for the Future, The Johns Hopkins Press, Washington, DC
- La Branche S and Warin P (2006) La “concertation dans l’environnement”, ou le besoin de recourir à la recherche en sciences sociales, Programme Concertation, décision, environnement, Ministère de l’écologie et du développement durable, Rapport final, vol 1, mars, 101 p
- Mermet L (2007) Projets, tentations et fantasmes hathrôlogiques: le syndrome patrimonial. Paper presented at the 10th session of the RES cycle Recherche Environnementale sur la Société, ENGREF, Montpellier, 2 February. <http://www.rgte.centre-cired.fr/reel-rgte/>
- Morehouse BJ (2011) Heritage, public trust and non-market values in water governance. *Policy Soc* 30(4):323–334
- Nicolazo JL (1997) Les Agences de l’Eau, Éd. Johanet, Paris, 223 p
- OECD (Organisation for Economic Cooperation and Development) (1997) Environmental performance reviews: France. OECD, Paris, 237p
- OECD (Organisation for Economic Cooperation and Development) (2005) Environmental performance reviews: France. OECD, Paris, 248p
- Ollagnon H (1979) Propositions pour une gestion patrimoniale des eaux souterraines. L’expérience de la nappe phréatique d’Alsace. *Bulletin Interministériel pour la Rationalisation des Choix Budgétaires*, 36p
- Ollagnon H (1989) Une approche patrimoniale de la qualité du milieu naturel. In: Mathieu N, Jollivet M (eds) *Du rural à l’environnement. La question de la nature aujourd’hui*. ARF Ed./L’Harmattan, Paris, pp 258–268
- Petit O (ed) (2009) La ‘mise en patrimoine’ de l’eau, Mondes en développement, no 145, De Boeck, Brussels
- Pigou AC (1920) The economics of welfare, 4th edn. Macmillan, London
- Polanyi K, Arensberg CM, Pearson HW (1957) Trade and market in the early empires. *Economics in history and theory*. The Free Press, New-York/Glencoe
- Shaw WD (2005) Water resource economics and policy. An introduction. Edward Elgar, Cheltenham

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