

THEMATIC REVIEW

Rethinking water management from the commons to a paradigm shift: A comparative reading of two books by Simon Porcher

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Books: Porcher, S. (2024). *La fin de l'eau?* Fayard; Porcher, S. (2026). *Nous sommes faits d'eau. L'avenir d'une ressource vitale.* Les Corps conducteurs.

As summers come and go, they highlight the changing status of water in France and, more broadly, around the world. Previously considered an abundant resource, water is becoming scarce even in areas thought to be immune to shortages. This observation, widely reported by journalists, has multiple consequences for society and the entities that comprise it. Changes in individual and collective behavior; public policy decisions, and the resulting impacts on organizations (companies, local governments, and associations) raise new questions that researchers in management and business administration are gradually addressing. Simon Porcher's two books, *La fin de l'eau?* (2024) and *Nous sommes faits d'eau* (2026a), respond to this call by addressing both the public and the scientific community. In particular, the author provides numerous insights into the many challenges related to water. While exploring current practices and explaining the evolution of water management – often likened to a puzzle –, these two works shed light on the history of public and private water services in France and around the world. They also emphasize several current issues, such as proposed technical solutions, including reservoirs, desalination, and the reuse of treated wastewater. By examining the economic, managerial, and sociological dimensions, Simon Porcher paints an uncompromising picture of water, illustrated with illuminating examples, academic references (some from Nobel laureates), and personal contributions (2012, 2016, 2017) or co-authored works (Boroumand et al., 2017; Mayol & Porcher, 2019; Molinos-Senate et al., 2018), as well as legal and journalistic contributions.

The topic of water is naturally more deeply rooted in certain disciplines, notably hydrology, engineering, and geography. It remains, however, relatively underexplored by the

management sciences, an observation that extends more broadly to the study of aquatic resources and environments. In the related field of oceanography, Berkowitz et al. (2019) note that the natural sciences have contributed significantly to our understanding of the anthropogenic pressures affecting the oceans, whereas the management sciences have remained on the sidelines – a situation that, according to the authors, justifies the development of sustainable ocean studies. The issue, however, goes beyond mere biophysical knowledge of the resource, since its preservation raises questions about organizational models, coordination mechanisms, and the practices of economic actors. In the case of freshwater, Baudoin and Arenas (2020) thus call for understanding its management as a systemic problem in which ecological and organizational dimensions are interdependent. One reason for this situation is that a resource as essential as water is sometimes too little understood, relegated to the status of an input (Porcher, 2026a, p. 211). Dependence on production inputs raises questions about the sustainability of businesses in the event of a shortage. While this issue is well known to farmers, it extends to the entire economic fabric. Until recently, water-related risks (floods and droughts) were treated by managers as insurance issues. By revisiting the case of Michelin and its decision to establish a fictitious internal price for water to raise awareness of this resource's role in the production process, the author (2026a, p. 221) opens new perspectives.

These perspectives can either focus on the insurance versus prevention dichotomy (Glenk & Fischer, 2010) or turn toward water resilience, prioritizing prevention and risk reduction at the source, water conservation, infrastructure adaptation, the restoration of ecosystem capacities, and collective governance of the resource (Reguero et al., 2020). Under these conditions, insurance serves as a last resort to cover residual risk.

The richness of the content in these two works offers a three-dimensional perspective. Firstly, the concept of water

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as a common good serves as a central theme in analyzing water governance. Secondly, the recurring use of a historical approach to explain the functioning and evolution of water and sanitation services highlights a paradigm shift. Finally, the quality and security of water – fundamental issues for our societies – are driving the evolution of an economic model that is sometimes considered to be running out of steam.

Water governance: the thorny issue of the commons

Elinor Ostrom's work on the commons is central to both of Simon Porcher's books. The 2009 Nobel laureate defines a common-pool resource as a natural or man-made resource from which it is costly – though not impossible – to exclude beneficiaries from use (Ostrom, 1990, p. 30). Its sustainable management therefore requires institutional arrangements that enable a community of users to organize the conditions for access, use, and preservation of the resource. This institutional conception of the commons can, however, be expanded through a more process-oriented approach. Fournier (2013) thus urges us not to view the commons as merely a category of resources but as a social process of organization: 'commoning'. The commons are constructed through the practices by which actors collectively organize the use, preservation, and reproduction of a resource. Applied to water, this perspective significantly shifts the analysis: it is no longer merely a matter of identifying the institutions capable of preventing the overexploitation of a common resource, but of understanding how the collective organization of water itself contributes to the formation and maintenance of the communities that depend on it.

As early as 1968, Garrett Hardin explained the tragedy of the commons, which dooms humanity to constantly overexploit readily accessible resources, the use of which reduces the amount available to others. According to him, shared resources – from pastures to forests, fish, and even water – are destined to disappear. This predicted disappearance leaves little doubt about the conflicts that could result. In his 2024 book, Simon Porcher examines the various conflicts in France and around the world that have occurred or are on the verge of breaking out, with water as the main source of contention. Whether involving international rivers, mega-basins in France, or the water wars of the 1990s and 2000s in Bolivia, the author demonstrates that water can serve as a focal point for conflicts and that certain bodies have been established at the national level, notably in Spain and India, to adjudicate potential conflicts over water use (while lamenting, moreover, that no international body currently exists for this purpose).

For Simon Porcher, water governance in France, as it was designed, serves as an international model. Indeed, it inspired

Europe toward the end of the last century. The existing bodies promote local management with a watershed-based framework. Local bodies allow for the theoretical representation of all stakeholders, including citizens. This local organization by watershed (a division slightly distinct from that of the regions) results in the creation of small, captive local markets, a sort of natural monopoly that serves a dual purpose. It guarantees administrators a service tailored to their territory and ensures that citizens have relatively transparent and reasonably low rates over time. Nevertheless, the author considers water governance in France to be flawed. In *La fin de l'eau?* (2024), he warns of the risks associated with attempts to regulate water through market mechanisms or by financializing water. He believes that water's status would thus shift from a common good to a private good. In France, the lack of oversight – even regarding water withdrawals – and the lack of accurate data undermine the credibility of the proposed goals and the safeguards put in place. It is within this flawed governance framework that French public utilities find themselves responsible for ensuring access to drinking water for the residents of their territories. Building on this observation, Simon Porcher explains in both books how Elinor Ostrom dedicated her life to demonstrating that this 'tragedy of the commons' could be avoided by creating appropriate governance institutions (Ostrom, 2009). However, there is a nuance in the analysis. According to Ostrom, boundaries must be defined to make the commons governable, whereas Porcher argues that the contemporary water problem stems precisely from the fact that the relevant boundaries no longer coincide. Thus, the watershed, the state, the precipitation shed, the commercial supply chain, and the hydrological cycle delineate different geographical frameworks. This major contribution (Porcher, 2026b) prompts a reexamination of the seven other principles developed by Ostrom (1990).

- Regarding the alignment of rules for appropriation and provision with local conditions, Porcher emphasizes the need to reconcile local conditions with global externalities.
- Regarding collective decision-making, the question posed is: who represents actors dispersed across the globe?
- While Ostrom's model emphasizes that users monitor resources and behaviours, Porcher emphasizes the need for transnational scientific monitoring.
- While conflict resolution through accessible local institutions is at the heart of the Ostromian model, Porcher highlights cross-border and multi-jurisdictional conflicts.
- Regarding the right to organize, the analysis is reinforced: Ostrom advocates for the autonomy of the collective as recognized by the state, and Porcher emphasizes mutual recognition among levels of governance.

- At the level of interlinked enterprises, Ostrom's model advocates for multi-level nested governance. Porcher underlines the connection between the local, watershed, state, regional, and global levels.

This reinterpretation of the commons thus paves the way for new proposals that Simon Porcher presents in his two books.

Water and sanitation services: a historical approach against the backdrop of a paradigm shift

By revisiting the history of the creation of public water supply services (2024) and then successfully broadening our focus on the issue of sanitation (2026a), Porcher invites us to remain humble regarding modern infrastructure. Indeed, the *cloaca maxima* (a massive sewer) had already been built by the Romans in antiquity. Furthermore, Rome's one million inhabitants had access to 800 open reservoirs (2026a, p. 194). But in our time, infrastructure has been developed on behalf of municipalities and is very often managed by private companies. Thus, the first attempts at water services in our modern era were largely private (Porcher, 2024). The author also highlights the challenges of transparency in public services, citing the practice of 'entry fees', which was banned in 1995. For local governments, the issue of remunicipalization has become widespread in recent years (since the 2010s). This clearly demonstrates that remunicipalization of a technical and little-known sector is possible. Nevertheless, Porcher draws on his academic research to demonstrate that drinking water services, whether private or public, do not have a clear advantage over one another. These models of local natural monopolies are therefore likely to continue shaping the French system. Porcher also points out that the wave of infrastructure privatization carried out in Great Britain did not produce the expected results. However, this does not mean that the French model of public service delegation has worked when exported, especially in developing countries. The author draws on several examples to assess the performance of private companies: the key lies in well-drafted contracts (ones that are not overly optimistic) and in broad stakeholder engagement. For example, in La Paz and El Alto, it was the underserved populations who helped call the contract into question. In developing countries, access to water remains a very thorny issue, even though low-cost solutions exist.

Then, Porcher (2026a) describes the situation of swimming pools in France: countless private pools (a European record), alongside an ageing and insufficient network of municipal pools during heat waves. He laments a two-tiered societal divide that encourages the privatization and hoarding of this shared resource during times of scarcity. The author also recounts how sanitation services are preparing for the 2024 Olympic Games so that Parisians can regain

the right to swim in the Seine, which has been prohibited since 1923. The massive investments, focused primarily on sanitation, totalled 1.4 billion euros and, as everyone knows, were not sufficient to set up the swimming areas in time for the Olympic Games.

This historical approach to water management shows that contemporary systems are not merely the result of an accumulation of technical and institutional solutions. They are the legacy of a modern conception of water as an abstract, measurable, and mobilizable resource (Linton, 2010), of a project to control nature associated with modernization (Blackbourn, 2006), and of a hydraulic mission institutionalized within bureaucracies and technical systems (Molle et al., 2009). Subsequent shifts toward integrated, participatory, or adaptive management have profoundly transformed governance practices without necessarily challenging certain fundamental assumptions regarding water uses, growing demand, or the substitutability of resources. However, Baird et al. (2021) identify the emergence of a new scientific paradigm for water, breaking with the view of water systems as stationary, predictable, and capable of being controlled by command-and-control mechanisms. This emerging paradigm, on the contrary, views water through the lens of complex, dynamic, and uncertain adaptive systems, and favors inclusive, integrated, and adaptive forms of governance that are attentive to the interdependencies between social and ecological systems. The question then becomes, as Swyngedouw (2004) suggests, whether contemporary pressures on water call for further refinement of existing management tools or a more profound transformation of the underlying paradigm.

Water quality and security: toward a necessary transformation of the economic model?

At the local level, municipalities must organize water distribution and sanitation in accordance with the 'water pays for water' principle. Based on the volumes sold and consumed by the user, the final price consists of several components, including a fee paid to the Water Agency for the relevant watershed. The user is often the one who ultimately bears the cost of the significant investments required to ensure the quantity and quality of our drinking water (Porcher, 2026a, p. 262). The author pays particular attention to issues related to water quality, especially the various forms of pollution that affect it. As early as 2024, Porcher referred to the 'polluter pays' principle to highlight the conflicting stance of many farmers. While they require large volumes of water, some also tend to pollute it by discharging pesticides and fertilizers that remain in the groundwater for many years. At the same time, because it is difficult to trace the source of pollution – and because several years elapse between the pollution occurring, its detection, its prohibition, or even its control in terms of the quality of distributed water –, 'water pollution resembles a

perfect crime' (Porcher, 2026a, p. 129). Local governments must carry out massive upgrades to their networks to reduce leaks, which can sometimes be significant. Furthermore, many infrastructure facilities – such as dams, reservoirs, and certain water intake points – are no longer equipped to handle extreme weather conditions. This poses a problem when thousands of water intake points are closed due to pollution in France. Municipalities are facing the 'scissors effect': their users are consuming less water, leading to a decline in revenue, while management costs are rising. It therefore seems logical to expect the largest polluters (industrial and agricultural) to contribute, as they have generated significant indirect costs. The author proposes a new 'polluter pays' principle that applies before the pollution, but alternatives such as the implementation of certification programs and preventive measures are also presented.

Very often, due to low price elasticity, the end user remains the one who will largely finance both the small and large water cycles (domestic water and the natural cycle). In his first book, the author presents the consequences of using certain performance criteria to rate water management services in France and elsewhere in the world (Porcher, 2024). Far from being a silver bullet, comparisons and assessments are necessary to better understand what works and how to replicate it. However, in his second book, the author poses the question: are we truly seeking moderation among all stakeholders, or rather a massive optimization of water and sanitation services? (Porcher, 2026a). He sides with optimization on this issue. This emphasis on optimization, however, prompts a broader examination of the paradigm underpinning contemporary water management. Improving network efficiency and utilizing new infrastructure or digital technologies can alleviate certain tensions without necessarily challenging the structural determinants of demand and resource degradation. However, the paradox noted earlier (that conservation reduces service revenues even as investment needs increase) suggests that adapting the existing model may not be sufficient. The question then becomes that of shifting from a logic of optimization to a logic of transformation.

This tension between optimization and transformation is echoed in Martin's (2025) interpretation of Porcher's first book. Beyond the deliberately provocative question posed by its title, *La fin de l'eau?* (the end of water?), the book thus serves as an invitation not only to adapt behaviors to better preserve the resource but also to reinvent the economic models that govern its distribution. This perspective leads us to look beyond the mere pursuit of service efficiency and to question, at a more fundamental level, the economic and organizational principles underlying water management. Such a perspective aligns with research distinguishing between weak sustainability and strong sustainability.

The latter rests on the idea that certain functions of natural capital are critical and cannot be fully substituted by technical or financial capital. In the field of water, Lodemann et al. (2010) link this perspective to the emergence of a 'new water paradigm', based on the recognition of the interdependencies between social and ecological systems, as well as on the need to preserve the regenerative capacities of ecosystems. This approach moves beyond a primarily technical-economic conception of water management, without, however, ruling out the use of infrastructure or innovation. Hjorth and Madani (2023) expand on this line of thought by emphasizing the limitations of governance based on technocratic and predictive mechanisms when dealing with complex, dynamic, and uncertain water systems. They advocate for adaptive management grounded in learning, institutional flexibility, and a better consideration of the interactions between social, ecological, and technical dimensions. This line of inquiry has also recently found an extension in management science through research on planetary boundaries. Williams et al. (2025) show that consideration of these boundaries remains fragmented in the management literature and call for them to be viewed not merely as a context for organizational sustainability, but as constraints on the scope of organizational action in the Anthropocene. When applied to water, this shift is significant: it is no longer merely a matter of seeking solutions to meet a given demand as efficiently as possible, but of determining in advance which uses and activities can be sustained within the biophysical limits of water systems. Optimization thus takes a back seat to defining the ecological space within which it can occur.

Therefore, water can be understood as a component of a socio-ecological system whose governance depends on collective rules tailored to the characteristics of the resource and the stakeholders who depend on it (Ostrom, 1990, 2009). This territorial approach would thus shift the focus from management centered primarily on service performance to the collective definition of uses compatible with local ecological limits. However, it should be noted that this optimization of water consumption applies to everyone, including businesses, during drought conditions. Possible efforts should be considered across all-time horizons, as certain industrial investments can drastically reduce the amount of water consumed. Porcher elaborates further on possible agricultural solutions, focusing on mega-reservoirs and dams.

In his two books, he emphasizes that certain investments (such as those addressing pollution) can only be implemented collectively through specific structures, while expressing concern about certain measures that have been taken, notably a decree reducing the timeframe for challenging the construction of such infrastructure. The author

goes even further by challenging our preconceptions about dams (2026, p. 43). Drawing on scientific sources, he demonstrates that dams generate significant amounts of greenhouse gases and do not always produce the expected results, particularly in terms of electricity generation. Similarly, the author highlights the emerging debates over water security: on the one hand, the push to free rivers and adopt nature-based solutions; and on the other, solutions relying solely on technology (including artificial intelligence) that enable the anticipation of scenarios and identify which infrastructure to maintain, dismantle, or build. The author explores methods that are sometimes surprising. 'Sponge cities', wastewater reuse, urine reuse, and desalination are thus examined in detail (Porcher, 2026a).

Conclusion

Taken together, *La fin de l'eau?* and *Nous sommes faits d'eau* go far beyond the mere issue of water scarcity. By weaving together the history of water services, economics, governance, environmental challenges, and technical solutions, Simon Porcher demonstrates just how much water has now become an issue that is at once ecological, political, economic, and organizational. The complementary nature of the two books is particularly illuminated in this regard: the first lays the institutional and economic foundations of water management, while the second broadens and updates the discussion considering the accelerating quantitative and qualitative pressures weighing on the resource. For the fields of management and administrative sciences, their main contribution may lie in the questions they help to raise. Water scarcity can no longer be viewed as a mere external constraint to which organizations and regions would respond with greater efficiency, investment, or technical innovation. It calls into question economic models, governance mechanisms, the relevant boundaries of collective action, and, more fundamentally, the very purposes of management. Consequently, the challenge is likely no longer merely to manage water better, but to collectively determine which uses to preserve, transform, or abandon to make them compatible with the limits of hydro systems. In this regard, Simon Porcher's two books invite us less to proclaim 'the end of water' than to consider the possible end of a certain way of managing it.

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