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Water Justice: The Case of Brazil

by Antonio Herman Benjamin

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Water[1] is directly linked to health, wealth, and the fertility and productivity of the land, and as such presents—simultaneously—ethical, economic, and political questions, as well as legal concerns. Conventional scientific wisdom posits that there is no life without water. This inextricable inseparability, a cliché even among laypersons, has indelibly marked the trajectory of humankind, so much so that "nearly every ancient society enjoyed close spiritual relationships with water."[2] From the baptism of Jesus in the Jordan River to ritual Hindu bathing in the Ganges even today, the purifying gift and sacred nature of water have always expressed universal characteristics of both past and present cultures.[3]

Human life and dignity unquestionably occupy a central position in today's legal systems. Logically, water—understood as an absolute necessity or the sine qua non of our very existence—should be accorded the same maximum priority by law. This intuitive step necessarily demands the inclusion of water among the fundamental values that guide human relations in both rural and urban areas.

In other words, just like life itself, water demands the greatest possible attention and care from all of us, but in a very special way from legislators, administrators, and judges. Notwithstanding this necessarily high priority for water, the reality of legal and judicial treatment of water, viewed from a comparative law perspective, is still terribly inadequate and far from achieving this rational and self-evident expectation. Thus, one speaks of a "water crisis," a global phenomenon marked by unbelievably dramatic episodes, extending far beyond the local-level tragedy of having to ration drinking water in large cities, such as São Paulo and Brasília.

Despite the gravity of hydrological degradation, there are signs that allow for a certain degree of optimism. One indication of change is the growing public awareness of the urgency of taking concrete measures—locally, nationally, and internationally—to protect freshwater resources through legal rules and institutions, though a sufficient level of political will may still be lacking for a truly effective move in this direction.[4]

Failings in the design and enforcement of regulatory frameworks must be included among the multifaceted causes of the enormous disconnect between, on the one hand, perceptions of the importance of water and, on the other, impactful public and private measures aimed at protecting it. Viewed in this light, today's water crisis should be tackled simultaneously as a *legal crisis* and a *judicial crisis*, since our inability to respond to water injustice can be traced to serious deficiencies in the way the law and judges deal with this precious resource.

In most countries, legislation regulating water and its uses is not lacking. However, with discernible exceptions here and there, traditional legal regimes and case law in developing countries either fail to break away from old and outdated concepts and institutions—inherited from ancient agrarian societies, such as Roman law, or the later

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1. This Comment is focused on freshwater. "Water" and "water resources" (or hydric resources) are used as synonyms, though this would not be entirely correct in technical terms, since "water is the natural element, unbonded to any specific use or utilization. It is the genre. Hydric resources are water as an economic good to be utilized precisely as such." Cid Tomanik Pompeu, *Águas Doces no Direito Brasileiro*, *in* Águas Doces no Brasil: Capital Ecológico, Uso e Conservação 602 (Aldo Da C. Reboucas et al. eds., Escrituras 1999). Currently, the distinction is legally irrelevant, since law systems regulate—or should regulate—water in the broadest possible sense, even when there is no direct economic interest involved, for example, when it protects ecological flows or precious aquatic ecosystems per se.
2. Brian Fagan, Elixir: A History of Water and Humankind 331 (2011).
3. Aude Farinetti, La Protection Juridique des Cours d'Eau: Contributions à une Réflexion sur l'Appréhension des Objets Complexes 31 (2012).
4. Weak or lack of enforcement is a major problem that globally affects the credibility of environmental and water laws. In his seminal article on the Brazilian pollution control system, Roger Findley correctly pointed out in 1988 that different circumstances can be blamed for the enforcement gap observed in developing countries like Brazil, but "the primary factor has been a lack of political will." Roger W. Findley, *Pollution Control in Brazil*, 15 Ecology L.Q. 30 (1988). Thirty years later, this is still an accurate assessment of the situation.

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Industrial Revolution—or are insensitive to the peculiarities of water as a vital resource, instead dealing with it as nothing more than a simple accessory to or extension of the land. Either law regulates water without duly considering its central position as a critical component of ecosystems and biomes, or it treats it as something totally separate from other elements (e.g., forests) that, together with water, form the complex unit of the natural environment.

Even though water is linked to human rights today, it is not uncommon to find instances in which the law attributes greater value to private, rather than public, interests in the resource. Judges frequently legitimize personal and individualized water management decisions taken by the owner of land on which the resource happens to exist, with little or no reference to the collective human expectations of present and future generations and the needs of the broader community of life dependent upon water.

Even modern water legislation does not ensure the desired level of protection of this critical resource; without good compliance and enforcement mechanisms and institutions, including judges familiar with the environmental rule of law concept and its tenets, well-drafted statutes have no more value than the paper upon which they are written.

In summary, through law we have in general terms acknowledged certain ethical, religious, social, and principally economic attributes of water, coupled with the more recent inclusion of ecological concerns among these considerations. Yet we have moved in precisely the opposite direction, showing ourselves to be incapable of putting into practice those same norms and enforcement mechanisms to effectively ensure the quantity and quality of this natural resource for all.

The main proposition of this Comment, which focuses on the Brazilian experience[5] and the jurisprudence of the National High Court of Brazil (STJ),[6] is that we must develop what I have been calling in academic circles and judicial training programs a *water justice system*. To some extent, this would be a novel concept, aggregating not just traditional principles of water and environmental law, policy, and management—like the polluter-pays, user-pays, and precautionary principles—but one that would also embrace new and strengthen existing legal perspectives, such as recognition of the intrinsic public nature of water and the principle *in dubio pro aqua*. These principles must be coupled with the adoption of innovative enforcement mechanisms and institutions, which should include at their core the judiciary, and that are conformed by nature instead of attempting to conform nature. A good model is the Brazilian "watershed environmental public prosecutor."[7]

I. General Features of Water Law From a Comparative Perspective

Although legal protection of freshwater varies from one country to another and certain differences can be perceived between the common law and civil law systems, there are broad commonalities that can be easily identified.

First, in the past, one observes a normative phenomenon, namely that the greater the availability of freshwater resources, the less the concern with their comprehensive or effective regulation. It seems that legal protection and enforcement responded to considerations of water scarcity, in terms of both quantity and quality. Therefore, in more arid regions or countries, historical experience indicates that water regulatory frameworks tend to be more detailed and efficacious. There is little difference between this situation regarding water and other fields of law intervention in economic activities, in which neither the legislator nor the judge give due attention to resources considered infinite or abundant, since experience teaches the lesson that legal controversies arise out of natural or artificial shortages, one of the main origins of human conflicts.

In this context, the paucity or absence of judicial precedents in a particular jurisdiction can serve as a barometer capable of roughly indicating that water is not a legal issue at all, that laws and regulations do not address the question adequately or, equally serious, that the doors of the judiciary are closed or difficult to access for such claims. Implausible explanations are occasionally proffered to justify this condition of judicial neglect.

In 1909, for example, a respected and extremely conservative Brazilian legal scholar and federal judge, noting that the country's higher courts had very few precedents involving water, found this judicial lacuna to be a cause for celebration. He interpreted it as a positive sign of the lack of need or even the inconvenience of reforming legislation on this matter, as many proposed at the time, in spite of the clear gaps and inadequacies in the law inherited from the colonial period that granted wide-ranging powers to private owners. Unable to disguise his wariness of state intrusion in the then-prevailing status quo that he desired to preserve, he affirmed:

> [T]here is no subject in Brazil in which jurisprudence has had less impact than that involving questions of water.

5. On this topic, see also Antonio Herman Benjamin et al., *The Water Giant Awakens: An Overview of Water Law in Brazil*, 83 Tex. L. Rev. 2185 (2005).
6. On the environmental jurisprudence of the STJ, see Nicholas S. Bryner, *Brazil's Green Court: Environmental Law in the Superior Tribunal de Justiça*, 29 Pace Envtl. L. Rev. 470 (2012); Nicholas S. Bryner, *Public Interests and Private Land: The Ecological Function of Property in Brazil*, 34 Va. Envtl. L.J. 122 (2016).
7. In the mid-1990s, when I headed the Environmental Protection Division of the Office of the Attorney General of the State of São Paulo, I formally proposed the creation of what I then called the "office of the watershed environmental public prosecutor," an idea that faced internal resistance and did not gain immediate traction there. The concept, however, was later adopted by other states, beginning with Minas Gerais. In an article published in the *Brazilian Environmental Law Review*, I warned that the *raison d'être* of the suggested new model was the need for the various environmental public prosecutors scattered about the state to avoid fragmented judicial initiatives—in other words:

   > [A] myopic enforcement lacking a broad overview of the situation as a whole, when not devoid of real practical results. For example, one can imagine a public civil action targeted at combating the channeling of *in natura* domestic sewage directly into a waterway that flows through various municipalities, all of which contribute equally to the overall pollution.

   See also Antonio Herman Benjamin, *Um Novo Modelo Para o Ministério Público na Proteção do Meio Ambiente*, 10 Revista de Direito Ambiental 7-13 (1998).

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> Rare, very rare are the decisions of the higher courts handed down on this subject. However, there is no country on earth that possesses such an abundance of rivers and waterways like ours. What does all of this mean therefore? The logical conclusion: a clear and certain sign that what has already been determined in our institutions is quite sufficient to regulate the facts.[8]

He then wrongly predicted that the existing legal framework could "meet our needs for an additional century into the future."[9]

Second, water resources have always been divided—in the Western world, in a systematic way since the Romans—into at least two large groupings: one category of water bodies of interest to all (the Crown, the state, or the people as a whole), for example public rivers (particularly perennial bodies of water, due to their significance to navigation, public supply, and security); and another category that was subject to private ownership and appropriation for individual use, for example private rivers. Certain key aspects were relevant and repeated in the traditional legislative and jurisprudential vocabulary of existing legal models: whether a particular body of water was navigable or not, the perennial or temporary nature of the waterway, and public or private use.

With respect to Brazil, the paradigm that focused public (royal) utility principally on navigable and perennial waterways is stated in the "Philippine Ordinances" (*Ordenações Filipinas*), promulgated in 1595 by Philip II of Spain (Philip I of Portugal). These Ordinances went into effect only in areas under Portuguese dominion, beginning with their printing in 1603, at the orders of Philip III (Philip II of Portugal). They can be described as a wide-ranging legislation, a sort of general code of law, that, to a great extent, remained in effect in Brazil until adoption of the 1916 Civil Code and 1934 Water Code, at least insofar as water is concerned.

According to the Ordinances:

> [*B*]*elonging to the Royal rights . . . are the navigable waterways and those from which are made the navigable ones*, if they *never cease to flow*. And given that the use . . . of the rivers is common to all, and even to all animals, their proprietorship belongs to the *Royal Patrimony*."[10]

This legal provision, which represented an extraordinarily wide-ranging royal appropriation of water (a clear break with Roman law tradition), was intensely criticized by legal scholars since it transferred to the domain of properties of the Crown not only the "navigable rivers" (criterion of navigability), but also included "*those from which are made the navigable ones*, if they *never cease to flow*" (criteria of flow and perennial nature).[11] In other words, the Crown controlled the tributaries—with the greatest continuous discharge capacity—of navigable waterways.

The powerful reaction of private owners, coupled with an intense traffic of pleadings to the king of "frequent representations seeking to obtain the right to utilize . . . channel water, and similar services in order to benefit the land," resulted in the issuing of the *alvará* (similar to a royal decree) of November 27, 1804.[12] This edict allowed occupation by private persons and construction of channels in order to benefit agriculture and industry, without prior royal concession and, it would appear, without paying any tax (*foro*) to the king.

With the new privatized approach, abuses of every sort multiplied, including on navigable rivers, with interventions that reduced their flow capacity (*caudal*)—all of this despite the *alvará* requiring that proprietors obtain "licenses for construction" of any "channel or dam to irrigate one's land." This prerequisite was probably not enforced, which shows how old and pervasive the problem of "paper law" is in Brazil. The permit was to be issued by a local officer of the Crown who was obligated to take into consideration the advice of "experts" or "intelligent persons" (§11). In certain situations, including projects like aqueducts in "the yards of urban buildings" (§12), an "express Resolution" signed by the king himself was still required. Therefore, the great innovation of the 1804 *alvará*, called the "golden law of Portuguese agriculture" (and also Brazilian, for that matter), was to loosen and, in some cases, abolish the system of royal ownership of waters, since their use no longer "required Royal concession."[13]

Third, in most legal systems, water was governed with emphasis on its quality as an economic resource, an integral and accessory component of proprietorship of the land. Despite legislative and judicial recognition that "greater or lesser utilization" (water quantity) and "better or worse use" (water quality) were certainly a cause of concern to adjacent land owners, in most cases, the collective interests at large were ignored. Neighboring communities were reduced to the position of, at best, a distant spectator of an economic phenomenon that, in legal terms, had no more than a vague and remote relationship that never gained priority standing in the legal arena.

From another perspective, a rapid and superficial survey of the jurisprudence of both civil and common law countries shows similar results regarding the status of water—viewed exclusively or predominantly in economic terms, with little or no real concern, other than lip service, for its social, ecological, ethical, and religious implications.

The deplorable state of water, mainly in urban areas, has been denounced for decades and has, on occasion, provoked spasms of insufficient and fragmented legislative action. However, only when rivers in such highly polluted areas as industrialized regions became dead ecological

8. Manoel Ignacio Carvalho de Mendonça, Rios e Águas Correntes em Suas Relações Jurídicas, at VI (1909).
9. *Id.* at 183.
10. Ord. L. II, tit. XXVI, 8 (emphasis added).
11. *Id.*
12. Applicable to Brazil and "Overseas Dominions," as per the terms of another *alvará* dated March 4, 1819, the promulgation of which was justified by "benefiting agriculture and the public cause."
13. Mário Tavarela Lobo, Manual do Direito das Águas Vol. 1, at 31-32 (2d ed. 1999).

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zones and even caught fire—the Cuyahoga River in Ohio comes to mind—has the pressure of public opinion generated deep-rooted legal changes to the limited economistic notion of water.

The excessively individualistic conception of water has also impacted enforcement arrangements. For private resources, it followed that only persons directly affected (normally, landowners)—and not the state (with exceptions, such as public nuisances), much less diffuse and distant communities—would or should have the necessary standing to sue for judicial protection. This narrow understanding of who is entitled to knock on the doors of justice was totally incompatible with the nature of the resource in question—a restriction particularly unwise given that one of the essential characteristics of water, similar to fauna, is its mobility. Today, it is located on one property; tomorrow, on another; and, within a short time, it will cross international borders[14] or flow into the sea.

II. Modern Law Systems: Water as a Public Good and a Fundamental Human Right[15]

In the second half of the 20th century, legislators and judges began to view water as something more than a private commodity, awakening to the need to regulate it as an "atypical natural resource."[16] Legal systems started to acknowledge the strong *ecological interface* of water, and at the same time treated it differently in many aspects from other elements of the "environment,"[17] a term that was itself unknown to constitutions, statutes, and the jurisprudence of the world until environmental law appeared in the 1960s as a new legal discipline.

The abyss between the law model of the *ancien régime* and this new holistic vision of water was evident. One of the old tenets, now considered indefensible, was the presumption that as long as the water-consumptive activity did not seriously and directly affect landowners who also made use of the watercourse, statutes and jurisprudence—with only rare exceptions—should be indifferent to the manner and degree of appropriation. The law did not restrain, or was incapable of preventing, waste of every type or activities such as excessive impoundment that blocked currents and consequently the capacity of water to maintain biodiversity and ecological processes dependent upon it. To make things worse, occasionally, courts in countries like Brazil added that a person could not be prosecuted as a polluter if the water had already been polluted by others.

In response to evolution in ethical and legal perceptions—and public attitudes—over the past 50 years, major changes have taken place in law with regard to the status, ownership, management, allocation, distribution, and judicial protection of freshwater resources. There exists a noticeable worldwide trend toward broadening the regulation of water as a public resource, one vital to the community of life. At the same time, we are seeing a remarkable decline in models of management founded in theories that, closely or vaguely, borrow from the absolutely minority and mainly American (and in just a few states) system of rights of "priority" in the private use of water, an approach that grants legal recognition of water use to those who were the first to appropriate the resource (prior appropriation system).[18] This evolution should come as no surprise, since "the greater the importance of a particular good to society, the greater will be the tendency to publicize it, with the objective of obtaining the protection of the State and the guarantee that all will have access to that good."[19]

As already mentioned, the trend toward expanding the public domain over water was strongly resisted in Brazil prior to promulgation of the 1934 Water Code. Opponents claimed that "the intention of extending domain over the waters by issuing a generic measure is equivalent to expropriation of what even today was subject to the peaceful dominion of private parties. Nothing could be more repugnant; nothing could be less republican."[20] They further raised the alarm that reformist legislators "have forgotten that they are altering the general principles that govern property, thus conflicting with our national habits and implementing fiscal socialism, a thousand times more dangerous than any type of despotism."[21]

Outdated and nowadays minority rules of the type "first in time, first in right" or "the land is mine, therefore I do what I want with *my* water" directly conflict with more modern constitutional systems that attribute a *social function* and, more recently, an *ecological function* to any property right or ownership of natural resources (as seen

14. It is estimated that more than 300 river systems cross national boundaries and that 47% of the earth's surface is bathed by international river basins (Marq de Villiers, Water 21, 81 (2000)).
15. A "fundamental human right," but unfortunately still more in theory than in practice. As Owen McIntyre correctly states, "support for the human right to water can be found in a very wide and diverse range of legal instruments operating at both the international and national levels and covering a variety of areas of activity," but its recognition "in national constitutional texts, national legislation and the pronouncements of national courts has often tended to be anything but unequivocal." *See* Owen McIntyre, *The UN-ECE Water Convention and the Human Right to Access to Water: The Protocol on Water and Health*, *in* The UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes 352-53 (Attila Tanzi et al. eds., Brill Nijhoff 2015).
16. Antoine Frérot, L'Eau: Pour une Culture de la Responsabilité 27 (2009).
17. "Water is a fundamental and inseparable component of the environment. It is a natural resource that, even when removed artificially from nature through human endeavor, tends to find its way back to the environment." *See* United Nations Environment Programme, The Greening of Water Law: Managing Freshwater Resources for People and the Environment 9 (2010).
18. This is precisely the assessment made by Stefano Burchi, when he states that "Groundwater in particular, and riparian rights in surface watercourses and in groundwater, have been steadily attracted into the ever-expanding sphere of 'public' domain waters." The author goes on to state that the variety of relevant legal constructs notwithstanding, "the result has been the same, i.e., to extricate a nation's water resources from the ownership or control of landowners, and to bring the resource and the relevant allocation under the scope of governmental authority." *See* Stefano Burchi, *A Comparative Review of Contemporary Water Resources Legislation: Trends, Developments and an Agenda for Reform*, published in 37(6) Water Int'l 613-27 (2012).
19. Maria Luiza Machado Granziera, Direito das Águas: Disciplina Jurídica das Águas Doces 81 (4th ed. 2014).
20. de Mendonça, *supra* note 8, at VII.
21. *Id.* at 181.

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in Bolivia, Brazil, Colombia, and Ecuador, among others). Specifically referring to water, Brazil's STJ held in 2016 that there can be no "vested right to occupation, regardless of when it is claimed, because, in legal and ethical terms, no one has or can legitimately have the right to kill others with thirst, no matter what pretext applies—housing crisis, adverse economic conditions, real estate speculation, or other productive uses that create jobs and generate income."[22] In other words, as a general principle, water is so vital to humans that it cannot be a privilege of one or a few, a conclusion that serves as a departure point for its recognition as a fundamental human right that precludes most, if not all, other rights.

Aside from the growing acceptance of the public character of water—as private freshwater bodies become the exception or are simply eliminated (as in the case of the 1988 Brazilian Constitution)—the process of legislative reform includes a variety of fronts. In comparative law, one can cite several well-established and other still-evolving principles of water justice: the adoption of a strict and integrated system of administrative authorization for impounding and using water (water permits) that takes due account of its multiple uses; prioritizing human domestic consumption and the guarantee of ecological flows or minimum volumes of water; water rights trading; organization of water management—and of judicial intervention—by river basins or similar models; use of new legal and economic instruments, such as environmental impact assessment; protected water areas; payment for ecosystem services; and due regard for transparency, participation, and integrity in water management.

An additional manner in which current water legislation has shifted away from prior legal frameworks, as the STJ has had the opportunity to hold, is the "absence of any distinction between *navigable* and *non-navigable* rivers." In the new legal paradigm, "the *criterion of navigability* has been replaced by the criterion of *hydrological basin*, as an indicator of the State's direct interest in the river or lake."[23] As is well-known, the concept of navigability was central to water regulation of the past, and still plays a role in certain jurisdictions.

Brazil's water legislation can be considered modern and sophisticated. As already stressed, until promulgation of the 1934 Water Code, the subject of water was disciplined by the 1916 Civil Code and, before that, by the Philippine Code (Philippine Ordinances). The major concern of the Water Code—though certainly not the only one—was to make utilization of hydroelectricity feasible since this was considered essential to the nation's industrialization and a national priority that had garnered total government backing.[24] In 1988, when the period of military government initiated in 1964 came to a close, a constitutional assembly promulgated a new constitution featuring several provisions specifically addressing water resources. Later on, in 1997, the Brazilian Congress approved the National Water Policy Act (Law 9433, Lei da Política Nacional de Recursos Hídricos)[25] and, in 2000, created the National Water Agency.

Although water quality has improved in several critical regions of the country, the greatest problem is still weak enforcement of legislation. Central provisions and instruments of the 1997 National Water Policy Act have been only partially implemented: for example, River Basin Committees and mechanisms for controlling the discharge of domestic and industrial effluents that have "killed" water bodies, making them veritable open-air sewers perpetuated by decades of omission and insufficient investments in sanitation systems.[26]

In the world, Brazil is not alone in reforming its water law system. More than just embracing access to water as a human right, a major evolution in itself, countries have increasingly expanded, through legislation, the scope of judicial oversight, empowering judges to adjudicate water controversies in the context of complex ecological processes that are vital for the broader community of life.

III. Judges and Water

Judges operate within territorial boundaries defined by rules of jurisdiction. Consequently, the myopic way in which they view the question of water is understandable, particularly with respect to rivers. What arrives before the courts is often an incomplete picture, disconnected pieces of an enormous whole. In other words, ordinary water litigation rarely goes beyond a mere collection of totally insufficient facts or material attached to a particular situation, incapable of transmitting a global and coherent understanding of the hydrological system under judicial examination. Of course, this makes it difficult, if not impossible, to properly adjudicate these controversies, taking into account the ecological framework in which water and land are part of and function as a single body.[27]

22. REsp 1376199/SP, Rapporteur Justice Herman Benjamin, DJe 7/11/2016.
23. REsp 1184624/SP, Rapporteur Justice Herman Benjamin, DJe 4/2/2011.
24. The drafter of the 1934 Water Code made it very clear that the intention of the legislation was to make hydroelectricity feasible in Brazil. It was for this reason that water was called white coal (*hulha branca*) by him and others. Public ownership of the main sources of hydroelectricity was considered essential, one of the principal "measures required to overcome the egoism of the owners of private waterways"; *see* Alfredo Valladão, Direito das Águas VIII (1931).
25. According to the STJ, the National Water Policy Act (Law No. 9.433/97) has three main objectives: "preservation of water availability, both quantitatively and qualitatively, for present and future generations; sustainability, allowing only rational uses of water; and the protection of people and the environment from critical hydrological events—a charge that gains greater importance in an era of climate change." The STJ concludes by explaining that the National Water Policy rests on several fundamental pillars, including "the principle of public ownership (water, as the law expressly provides, is a public good), the principle of scarcity (water is a naturally limited resource) and the principle of decentralized and democratic management"; *see* REsp 994120/RS, Rapporteur Justice Herman Benjamin, DJe 27/4/2011.
26. Promulgated in 2007, the National Basic Sanitation Policy Act includes among its "fundamental principles": "water supply, sanitation systems, urban cleanup and management of solid residues *performed in manners suited to public health and environmental protection*" (art. 2, III).
27. Water cannot be legally or judicially treated separately from land and its uses, a perspective that is being taken in consideration by more recent legislation.

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When deciding individual freshwater cases, very few judges have the legal or technical expertise required to absorb the highly intricate facets of the hydrology of those bodies of water. Sometimes, the judge cannot grasp a very subtle aspect of the science; other times, she may simply be unfamiliar with the upstream or downstream water basin of a river that crosses her jurisdiction. It is in no way surprising therefore that a judge may not understand the broader context of water pollution, let alone the cumulative effects of degradation and less-evident forms of abuse of the resource. Courts are normally called upon to react to incidents of point source pollution, ignoring the gravity of nonpoint source pollution, particularly in large-scale agricultural and livestock countries like Brazil.

Judicial disputes often arise not just among direct users of water (internal conflicts). Conflicts commonly occur between, on the one side, the present and future collectivity dependent upon and benefitting from the freshwater sources, and, on the other, equally constitutionalized and ethically legitimate holders of different social values (external conflicts). Housing, roads, energy, leisure, and, paradoxically, even sanitation infrastructure are some of the expectations of voters that at the same time have great potential to degrade or even destroy the hydrological network, particularly in major cities. Once again, judges are invited to decide on these controversies that raise immeasurable moral dilemmas and contain enormous political content.

In a civil suit against the state of São Paulo and a private company, the state environmental prosecutor claimed ecological restoration and damages caused to the watershed of the Guarapiranga Reservoir—which provides freshwater to the metropolitan region of the city of São Paulo—by the illegal construction of a building. Affirming the ruling of the state Supreme Court in respect to the order of demolition of the structure and other measures, but reversing it regarding the finding of no liability on the state itself, in spite of its lack of effective enforcement measures, the STJ held:

> Any other interest, while legitimate—housing, commerce, industry, tourism, agriculture, mining—pales in comparison to the indispensable and irreplaceable nature of water, a precious resource that can be encountered only where it exists, unlike competing activities that are not only fungible but can, in theory, be located and exploited in various sites throughout the country. In metropolises, characterized by high population density, the value of water rises in the face of greater scarcity, which ravages cities in general, and is further aggravated by climate change. These resources are already insufficient to meet the needs of those *with water*, let alone those millions still *without water*—the poor and the marginalized, excluded from a service so vital to the dignity of each human being.[28]

In developing countries, the spaces occupied by sources of water for domestic use—increasingly scarcer in the rapidly deteriorating context caused by climatic change—are habitual victims of chaotic urban expansion. It is frequently an irreversible phenomenon that results in an ever-growing multiplicity of slums and informal housing constructions. People with nowhere else to go illegally appropriate those so-called "open" spaces, many of which are irreplaceable areas for the production and accumulation of freshwater. These irregular occupations cause destruction of native vegetation, often forests, and, simultaneously, pollution and reduction of water supply.

How should a judge respond to such conflicts? It is extremely difficult to choose between a "roof" for a few today—no matter how meager—and water, for millions, tomorrow. Precisely this issue came before the STJ in the context of a civil suit filed by the local environmental public prosecutor, pleading the necessity of removing illegal occupations from the banks of the Billings Reservoir, a key water source for São Paulo, one of the 10 most populous cities in the world.

The state Supreme Court, after noting that, in such cases, "[t]he facts do not show any irreversible damage, although remediation is costly," ordered the defendants, including the city government,

> to restore the area to its prior state, with complete recomposition of the complex ecosystem in place, demolition of built structures, reclamation of the affected surface, regrowth of vegetation to cover the soil, de-sedimentation of streams, and other measures to be indicated in a technical report toward remedying the environmental damage.[29]

In confirming the ruling, while recognizing that "[e]vidently, compliance with the court's order will cause suffering to those affected by it," the STJ stressed that the judicial intervention was necessary in order to avoid "greater suffering by a greater number of people in the future; this reality cannot by discounted." The Court added:

> This case is not simply a matter of re-planting a forest at the expense of needy families who, in the hope of obtaining a place to live with dignity, had likely been deceived by project developers. Rather, it is a question of preserving an urban reservoir that benefits a far greater number of people than those living in the environmental protected area. The public interest must prevail over private interests when there is no way to satisfactorily reconcile the two.[30]

Other situations pose equally complex and hard choices to judges, because instead of challenging established legal theories and principles or old precedents, they involve instances in which legitimate social and political priori-

> The connection between land and its uses, and the quality of water resources, both surface and underground, is readily apparent from the analysis of the regulatory approaches to the diffuse pollution of water resources . . . . The connection can be equally compelling in regard to water quantity management, and in relation to, in particular, flood control and the natural recharge of groundwater.
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> *See* Burchi, *supra* note 18, at 5.

28. REsp 1376199/SP, Rapporteur Justice Herman Benjamin, DJe 7/11/26.
29. REsp 403190/SP, Rapporteur Ministro João Otávio de Noronha, DJ 14/8/2006.
30. *Id.*

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ties, including water, compete among themselves for the scarce financial resources of the state. This is what occurs in the absence or insufficient supply of basic sanitation in cities of the developing world. Faced with options that are essentially political in nature for the most part (more resources for some social demands and less, or even none at all, for others) courts, in water and sanitation litigation, are frequently placed in untenable situations. In other words, although judges may be aware of the problems, some tend to see themselves not in a position to give a satisfactory and meaningful solution out of concern of violating the constitutional principle of the separation of powers.

What judge is capable of simply ignoring the terribly degraded state of the waterways that ply their way through the cities in which he or she lives, marked by an often-unbearable stench and continuously contaminated by untreated domestic and industrial effluents? In spite of that and although no sophisticated technical examination is needed to confirm what everybody can see, feel, and know, the courts—above all in the overwhelming majority of countries in which their members are not elected—risk being considered powerless under constitutional rules that confine policy decisions to legislators and administrators.

Indeed, it is safe to say that there is not a single judge who is unaware that millions of people fall ill, suffer, and die as a consequence of diseases caused by the poor quality of the "drinkable" water that they consume and utilize. Jurisprudence is often permeated by an orthodox rationale—to the detriment of effective judicial protection of water and sanitation—that at the end of the day, the task of judges is to decide individual controversies involving water, not to replace the public authorities in charge of collective water management.

Here again, courts must find a point of equilibrium between *judicial water deference* to the administration and *judicial water indifference* to the fate and quality of this vital resource. I have absolutely no intention of preaching judicial activism, since there is no need for that in the water context in many jurisdictions. With the progressive incorporation of a holistic approach to the water protection into constitutional and other legislative norms, which explicitly and unmistakably set out precise rights and obligations, what we in fact have is *legislative water activism*, through legislated and mandatory public policies that *must* be applied by judges.

The STJ has, in a growing number of cases, been called on to resolve litigation on the lack of basic sanitation, particularly where riparian vegetation, rivers, or other water bodies have been contaminated or destroyed by direct discharge of untreated sewage. In one precedent, the Supreme Court of the state of Santa Catarina held that a large municipality's twin failures—the refusal to build a sewage collection system in an irregular housing subdivision (which was constructed and expanded due to the lack of municipal enforcement), as well as its resistance to reclaim the Itaum River (degraded by illegal development in the area)—constituted "discretionary acts" of the mayor, and, as such, were not subject to judicial scrutiny. The STJ reversed, based on a number of statutory provisions that protect water and riparian vegetation. The Court reasoned that because Article 225 of the Brazilian Constitution proclaims that the "right to an ecologically balanced environment is *essential* to a healthy quality of life," this essentialness gives such an entitlement the status of a "fundamental right," opening the door for judges to guarantee "maximum effectiveness" of the law in securing it.[31]

In the field of water, as in any other endeavor designed to protect human dignity and health by law, special care must be taken to ensure that administrative discretion, a concept recognized in all legal systems, does not lead to arbitrary and capricious practices and omissions, in true disregard for and violation of basic fundamental rights. According to the STJ, in a precedent related to the protection of health (but fully applicable to water),

> [the] excuse of limited budgetary resources is often nothing more than a screen to hide administrative officials' decisions to choose their own priorities instead of those established in the Constitution and by law—mandates that supersede personal interests in order to attend to society's most urgent needs. Budgetary absurdities and aberrations, because they stretch and break the bounds of reasonableness and common sense, and go beyond legislated public policies, are fully reviewable by the Judiciary. Doing so does not infringe the proper discretion of public administrators, nor does it violate the principle of separation of powers.[32]

The Constitutional Court of Brazil (STF) expressed a similar understanding when, for example, in 2012, it reversed a ruling from the Supreme Court of the state of Rio Grande do Sul, in a suit brought to compel a city government to provide basic sanitation. The state court had declared that, in addition to the right to a healthy environment, there are "innumerable other constitutionally guaranteed rights that remain unimplemented, and it is left solely to the government to decide how to proceed." For a judge to suggest otherwise would compromise the "independence among Powers."

Reversing the judgement, the STF ruled that, although the traditional function of the judiciary does not include "the responsibility to formulate and implement public policy," judges may, in "exceptional" circumstances, carry out this task, "if and when the competent state bodies, for failing to fulfill binding political-legal responsibilities, have, through their actions, compromised the effectiveness and the integrity of individual and/or collective rights imbued with constitutional stature."[33] In such circumstances, the STF held, in this and other, similar cases, that "judicial intervention, justified by arbitrary government refusal to give real meaning to the right to the environment, becomes

31. REsp 1150392/SC, Rapporteur Ministro Sérgio Kukina, DJe 20/9/2016.
32. REsp 1068731/RS, Rapporteur Justice Herman Benjamin, DJe 8/3/2012.
33. RE 796347 AgR/RS, Rapporteur Ministro Celso de Mello, 24/3/2015.

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fully legitimate (without offending, therefore, the separation of powers)."[34]

Finally, one must add that very few judges are familiar with the basic aspects of water science and the hydrologic cycle. Confined within the limited boundaries of their jurisdictions, and typically not coming into the judicial role with scientific backgrounds, judges are technically and geographically poorly positioned to consider the question of integrated water management.

Consequently, the usual result in water cases is the absence of sensitivity to the destruction and degradation of small waterways and springs, particularly when there are much larger ones in the same area or jurisdiction. Yet, great rivers would not even exist were it not for their networks of innumerable tributaries. Thus, a judicial focus on the whole without noting the untold number of small but essential water components can be as erroneous as, alternatively, viewing those tiny but essential elements while losing sight of their direct connection to the survival of the main or bigger water system. In the same way, a lay tourist can visit the beautiful springs at the crest of the Andes and not understand how these fragmented and cold little wetlands, and uncountable numbers of ponds and narrow trickling streams, gradually come together thousands of kilometers downstream to form the world's mightiest river, the gigantic Amazon.

In a direct rejection of this distorted and incomplete understanding of hydrology, in 2009, the STJ reversed a ruling from the Federal Court of Appeals of the 4th Circuit (based in Porto Alegre, in the South of Brazil) and held that judges cannot permit the clearing of riparian forests "under the argument that they merely border a simple 'rivulet.'" The Court concluded:

> It would be nonsensical to take care of only the mightiest currents and the springs, leaving without any protection between them streams of smaller volume or flow. In Brazil, a legal guarantee is granted to the river basin and to the entirety of the riparian system, regardless of the flow of the watercourse. Rivers do not exist without springs and tributaries—even the smallest and narrowest, the width of which does not reduce their essential importance in maintaining the integrity of the whole system.[35]

Water law has advanced considerably since 1909 when Professor and Federal Judge Manoel Ignacio Carvalho de Mendonça, one of the first Brazilian legal scholars to write an in-depth analysis of water law, defended the position that, in Brazil, "a vast country, cut by innumerable powerful and flowing rivers, the small streams and waterways are obviously of little import."[36] The 2009 STJ ruling exhibits the modern "hydrological holism" that gives cause for optimism about the future of water in courts.

IV. Conclusion: Toward Water Justice

Where does this evolution of legal concepts, objectives, principles, instruments, and institutions of water regimes lead us, particularly after the 1972 Stockholm Conference, which started our present international (and national) environmental law era? Is the global dialogue converging on a new unique, comprehensive, and integrated approach that one would call water justice?

Comparing the details of the legal structures of each country, differences and divergences will always exist, since the law—even when it responds to international influences and demands—cannot suddenly and entirely break away from its historic and local cultural foundations. Despite the diversity of national systems, water law, just as has occurred with environmental law, is flowing swiftly like rapid streams to form a large legal river and generating this all-encompassing concept that I call *water justice*.

What precisely is water justice? Some basic and general components of this new paradigm are already emerging. In the first place, at the most profound level of the very nature of the resource in question, it means a legal system where water is not viewed and legally characterized as a simple economic commodity, and for this reason emphasizes its public, intergenerational, and ecological nature (the holistic view).

Second, water justice attributes a paramount position to this resource in the broader legal system, based upon its absolute essentiality to the very existence of the human being and the planetary community of life.

Third comes acceptance—with all the consequent legal repercussions—of the fact that, although water is everywhere and even a prevalent element of our physiological body composition, and despite what jurists of the past imagined, "the world supply of freshwater is finite."[37]

Fourth, water is unequally distributed, thus demanding the pursuit of forms of water inclusion in the regulatory framework, so as to meet the specific needs of the water poor and vulnerable, whose livelihood and culture for some may depend directly on the resource, such as indigenous peoples and traditional communities.

Fifth, acceptance of the holistic character of water demands broadening of the mechanisms of access to justice, a road that has led jurisdictions into creative and even "legally heretical" solutions in order to overcome the vision

34. RE 796347 AgR/RS, Rapporteur Ministro Celso de Mello, 24/3/2015; similarly, in a precedent under the rapporteurship of Justice Marco Aurélio, the STF decided that it is perfectly "consistent with the legal order for the Office of the Attorney General to bring a public civil action seeking the proper treatment of sewage before it is discharged into the river" (RE 254.764/SP, DJe 21/2/11); In another case, with Justice Dias Toffoli as rapporteur, in which the Federal Office of the Attorney General brought a public civil action against the state of Rio de Janeiro and the state water company (CEDAE), seeking to enjoin pollution by discharge of untreated sewage into the South Paraíba River, which supplies the city of Rio de Janeiro, the STF affirmed that "[t]he Judiciary, in exceptional circumstances, may order administrative agencies to adopt measures to ensure the enjoyment of constitutional rights deemed essential; doing so does not violate the principle of separation of powers" (RE 417.408/RJ-AgR, DJe 26/4/2012).

35. REsp 176.753/SC, Rapporteur Ministro Herman Benjamin, DJe 11/11/2009. The plaintiff, the Federal Office of the Attorney General, sued the Environmental Protection Agency of Brazil (IBAMA), the state of Santa Catarina Environmental Protect Agency, and the city of Joinville for illegally authorizing land clearing for construction of a sports facility.

36. de Mendonça, *supra* note 8, at 179.

37. Fagan, *supra* note 2, at 341.

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of water as a mere thing, including standing to sue, in their own name, for rivers and other ecological entities.

Sixth, both at the legislative and administrative levels, as well as in the framework of judicial remedies, water justice emphasizes preventive and precautionary mechanisms, with the addition of a new principle that I would term "*in dubio pro aqua*."[38] This concept reverses the burden of proof of risks and, at the same time, works as a hermeneutic tool to be used by judges and administrators when interpreting and applying statutes and regulations.

Finally, water justice requires original formulas to replace the well-known geographic limitations of judicial jurisdiction, including institutional arrangements such as the establishment of watershed public prosecutors.

In conclusion, if it is true that law by itself will be unable to resolve the water crisis of our age, one cannot at the same time ignore the reality that, without law, no model of water protection will have sufficient credibility and stability to ensure the minimum degree of authority and compliance demanded for its success. Evidently, without judges—who play the role of final arbiters of the entire edifice of water regulation and management—it becomes almost impossible to achieve genuine water justice.

In water law discourse and practice, the intergenerational damage caused by the blind application of outdated legal paradigms is outweighed only by judicial indifference, which arises mainly from ignorance of the central nature of water in all that concerns law, society, and the survival of humanity.

I would finish as I started, recalling that water is the foundation of life (the cliché), but also the pillar of civilization, war and peace, wealth and poverty, and, especially, justice and injustice. Water sustainability is a demand of present, but also of future generations, a category of law still looking for its proper place in jurisprudence. Instead of an obstacle requiring construction of physical and legal bridges over it, water should be treated by law and judges as a universal invitation to understand it as a liquid bridge capable of guaranteeing our human dignity and the existence of all living beings.

38. Referring to a similar concept, Principle 5 *In Dubio Pro Natura, of the IUCN World Declaration on the Environmental Rule of Law states:*

> In cases of doubt, all matters before courts, administrative agencies, and other decision-makers shall be resolved in a way most likely to favour the protection and conservation of the environment, with preference to be given to alternatives that are least harmful to the environment. Actions shall not be undertaken when their potential adverse impacts on the environment are disproportionate or excessive in relation to the benefits derived therefrom.