



Human Right to Water and Sanitation: Water for All vs. Full Cost Recovery

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The present work starts from the definition of the concept “human right to water and sanitation” (HRWS). Then, it delimits its content, in a strict sense, to finally argue that it is an autonomous and subjective right. In other words, it is a right of immediate applicability, which means that it binds both the State and the private sector—that is, public or private supply and sanitation companies. Therefore, there is a minimum that cannot be denied to anyone, especially to individuals or families who cannot afford to pay their water bills. Next, I propose possible solutions for water and sanitation companies to ensure HRWS—avoiding water cuff-off—without compromising their economic and financial sustainability. Finally, I conclude that to comply with the principle of full cost recovery (FCR)—established by the EU Water Framework Directive (FWD)—the water bill will have to progressively increase—especially in regions where water is scarce and (due to the effects of climate change) will become an increasingly precious good. But, for those who cannot afford to pay the water bill, State will have to subsidize to guarantee the minimum service, per person and per day, which is a human right.

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INTRODUCTION

The topic of human rights (HR) is very much cherished by the legal literature. However, when it comes to the Human Right to Water and Sanitation (HRWS) the number of jurists interested in the subject (despite its importance) decreases considerably when compared to other areas of knowledge, such as Economic Sciences. This happens, essentially, for three reasons: first, as we will explain next, HRWS is a recent HR when compared to typical first-generation subjective right, namely, the right to life and physical integrity, freedom of movement or expression and privacy of private life and personal data (to give you a few examples); second, some authors think that HRWS makes sense in developing countries, but not in developed ones, such as EU States; third, when you write about HRWS it is impossible to avoid the issue of water pricing and this is typically an economic topic (and not a legal one).

However, it is necessary that the issue of the HRWS is addressed legally (like any other HR) and that its relevance is highlighted for the EU States that are obliged to comply with the Water Framework Directive (WFD). This Directive is unanimously considered the most relevant legislation on EU Water Policy. According to the WFD and aiming to protect European water bodies and to apply the polluter pays principle, the water bill must reflect the real cost associated with the provision of the water and sanitation service. It is called “full cost recovery” (FCR). To fulfill this principle there are two solutions: it will be necessary to increase the price of water or subsidize it (this last one without violating the EU rules on competition).

Since climate change will worsen the availability of water, particularly in the southern regions of the EU, it is important to reflect on how the cost of scarcity will be integrated into the water bill so that water and sanitation companies can comply with the principle of FCR required by WFD. This principle is not met in many EU States more than two decades after the publication of the WFD (Menéndez Rexach, 2010; ACTeon, 2012; EEA, 2013; Marques, 2017; Jiménez Compaired, 2019; Resumen de las Propuestas de los Expertos Independientes, 2020). Therefore, it is now important to ask ourselves: How do we reconcile HRWS with FCR?

To answer this question, I will explain in Section Results of this article: first, the reasons why I understand that the HRWS should be considered a first-generation right (or, in other words, immediately applicable HR); second, I will demonstrate with legal data (primary and secondary sources of law) that the HRWS is an HR increasingly consolidated internationally and even in the EU; third, the reasons why HRWS are also important in the EU States. That is, I will reflect on whether water companies should (or should not) cut off water to customers who cannot afford to pay the bill.

Finally, in Section Discussion: Water for All vs. Water Full Cost Recovery, I will discuss possible solutions to reconcile the HRWS with the FCR principle, drawing the conclusion (in Section Conclusions) that EU States are obliged to subsidize the water bill only to vulnerable individuals or groups, but not to all citizens.

MATERIALS AND METHODS

As mentioned previously, when you write about HRWS it is impossible to avoid the issue of water pricing and this is typically an economic topic (and not a legal one). That is why it is important to make it clear, from the beginning, that the HRWS theme is addressed from a legal (and not an economic-financial) point of view. It should also be noted that the method used in this investigation is also legal—without prejudice to the use of Economic Sciences as auxiliaries. That is, using economic-financial data and references to scientific works published by authors from Economic Sciences, as well as other non-typically legal documentation. Based on the use of all these types of sources, I aim to demonstrate: first, that one of the solutions followed in many countries, subsidizing water for all consumers (Komives et al., 2005) does not transmit the cost of water scarcity to consumers and, therefore, does not encourage savings, and; second (and what is more relevant), it undermines the fulfillment of the principle of FCR to WFD. Basically, the latter constitutes the main arguments and is a legal argument. Note, nevertheless, that the WFD does not apply the FCR principle only to the so-called “urban water”, but also to other uses, whether industrial or agricultural. However, it is important to mention clearly that the scope of this work is limited to the domestic uses of water and the HRWS.

Apparently, there is a paradoxical situation in this work: on the one hand, I understand that it is an obligation to guarantee HRWS; on the other hand, I understand that urban water

should rise in price. Behold, if the price rises, the harder it will be for vulnerable groups can afford to pay, and the harder it will be to secure their HRWS. To resolve this paradox, I have followed a methodology from the Legal Science, based on the following elements:

First: I turn to general legal theory on generations of human rights to explain why HRWS should be considered a first-generation right (or subjective rights). That is, directly applicable (and not just progressively).

Second: I show that HRWS, in addition to being subjective, is also binding, as it increasingly finds expression in primary sources of law (such as constitutions, laws or directives) and in secondary sources (especially jurisprudence) all over the world. In this sense, I consider **Table 1** to be very demonstrative, since it compiles all these sources and judicial precedents, supporting my argument.

Third: since I hold that HRWS is a subjective and binding right, the logical consequence is: cutting off water to those who cannot afford to pay constitutes a violation of the HRWS. This argument is based on the fact that it means, in practice, a setback of an HR, showing that this practice happens, even in the most developed countries, mainly in times of crisis and economic recession.

Fourth, focus on the EU scope, I carry out an analysis of the main legal and political sources: European Water Policy, EU legislation and other EU not binding (but influential) official documents (e.g., European Green Deal). My analysis is essentially on WFD and other related directives and more specifically on article 9° of the WFD, aiming to explain the relationship of the FCR with water prices and the obligation to guarantee the HRWS. Also, I analyze EU rules on competition. Although, apparently, this legislation has nothing to do with the legislation on water, it is important to know whether by subsidizing costs related to WS services and corresponding water tariffs, a distortion of competition in the Single European Market can be produced.

Finally and concerning the selection and systematization criteria, the path traveled starts from the general to the particular. That is, I study the problem of implementing the HRWS worldwide, and then focus on the specific problem of the EU, sometimes using concrete cases from some EU States (but in an exemplary way). Should also be noted that our research is focused on the southern regions of the EU and not on the northern ones. This is because, despite the fact that northern European countries are seriously affected by water pollution and therefore high water treatment costs, these costs are not expected to increase as a result of climate change. On the contrary, in the Southern EU States, a substantial decrease in the availability of water is expected between 2030 and 2050^{1,2}. Hence the importance of looking

¹See, for example, this recent study presented by the Portuguese Ministry of the Environment publicly on the 7th of December 2021 and open for public consultation between 2021-12-11 and 2022-06-30. It shows that in the last 20 years the availability of water has been reduced by around 20% and is expected to decrease by 10% to 25% more by the end of this century. <https://participa.pt/pt/consulta/avaliacao-das-disponibilidades-hidricas-atuais-e-futuras-e-aplicacao-do-indice-de-escassez-wei>.

²At a more global level, similar information can be extracted, for example, through <https://www.carbonbrief.org/mapped-how-every-part-of-the-world-has-warmed-and-could-continue-to-warm>.

for formulas that transmit the cost of scarcity to consumers in these Southern EU States, but which (simultaneously) respect the HRWS.

RESULTS

Is the HRWS a First Generation Human Right?

First of all, it's important to start the analysis by asking us what a HR is. By definition, they are the rights that belong to the human being, by the fact of being born and therefore inalienable. As prescribed by Art. 1° of the Universal Declaration of Human Rights (UDHR): *“All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood.”*

The most publicized and generally accepted theory—perhaps because of its simplicity—on the division of HR is due to the Czech jurist, Vasak apud Marmelstein (2013). It's the three generations of HR. According to this author, while civil and political rights (or first generation HR) were susceptible of immediate application, requiring abstention obligations on the part of the State; economic, social and cultural rights (second generation HR) require State intervention and can only be applied progressively; finally the third generation rights—also called “trans-individual”, such as the right to the environment and quality of life—, are indivisible, hence the best way to protect them is through the so-called collective action in favor of diffuse interests that benefit a community. That is, plans and measures that achieve these environmental objectives should be progressively implemented.

While, right to life, freedom of movement or expression (for example), only require the State to respect (or not intervene) in the sphere of each citizen's personal freedom because they are first generation HR; economic, social, and cultural rights (or 2nd generation HR) require State intervention and are liable to be applied only progressively. For example, the right to housing or the right to employment, governments have the duty to public policies aimed achieving full employment or housing for all, but do not immediately guarantee these goals.

Currently, some authors already classify some rights, as belonging to the 6th and even 7th generation, including rights such as internet access or biotechnology (among others). In the present article, we will adopt the original theory—that is, those of the three generations of HR—understanding that in the third and last are included all those rights belonging to neither the 1st generation nor the 2nd one.

Therefore, it is now important to ask ourselves: to which of them does the human right to water and sanitation (HRWS) belong?

As I explained in more detail in a previous paper (Serenio, 2019), HRWS does not belong to any of the generations mentioned above, since it runs through all three. Therefore, it must be understood as an autonomous human right but interrelated with HR of all generations. In fact, most HR are interdependent. That is, it is not possible to exercise one without

exercising the other. In the case of HRWS, it could be said that without guaranteeing this right, it becomes impossible to guarantee the good health of the people, the good environment and, most importantly, a dignified life. In other words, WS is a “minimum existential service” that, already in the 21st century, is considered a *sine qua non*-condition to guarantee human dignity. In this sense, I understand that it should be considered a 1st generation HR, as a part of legal doctrine (Dominguez, 2014; Pes, 2014; Subbaraman and Murthy, 2015; Bos et al., 2016; Garcia, 2016; Vieira, 2016; Barraqué, 2019; Novaro, 2019; Imad, 2022), despite some opinions against it (Menéndez Rexach, 2010; Miranda, 2019).

However, the fact that access to water and sanitation is an HR does not mean that it should be free, but that each user (individual or family) must pay for the water they consume. The next question is: what happens when a user cannot afford to pay the water bill?

According to my analysis of the legislation, jurisprudence and doctrine on the matter, the tendency is to avoid cutting-off water when a certain individual or family cannot afford it. In this article, we present several techniques that public authorities and companies can use to deal with these situations, as well as to distinguish between users who cannot afford to pay the water bill and those who do not pay for other reasons.

The Progressive Implementation of the HRWS vs. the Urgency to Guarantee Human Dignity

Since HRWS has been qualified as a subjective right, there are three immediate obligations for the State: The first is to prevent water bodies from being exclusively appropriated by entities (public or private) or from polluting them, making it impossible to use them by others; the second is to build and manage—directly or through private parties—a series of essential infrastructures to provide essential water and sanitation (WS) services at an affordable price; The third is to guarantee this minimum service to both individual and collective people, even when these people are poor and unable to pay the real cost of it.

Furthermore, this HR, as autonomous from the 2nd generation HR, is not, like them, just a programmatic right. In other words, he is not just a legislator's desideratum, such as achieving full employment (as the aim of the right to work) for example. The right to work is a fundamental right included in almost all European Constitutions and even in the Treaty on European Union (Article 3°.3). But, we know perfectly well that each citizen does not have, individually, the fundamental right to request a job from the State. We also know that the State is not obliged to assign a job to every citizen. It only has the duty to implement public policies and programs aimed at reducing unemployment. Therefore, it is assumed that the right to work is a fundamental programmatic right, but not a subjective one. On the contrary, the HRWS constitutes a subjective right. That is, it constitutes a fundamental right with immediate applicability because the State must guarantee the same immediately, such as the right to life, freedom, the privacy of personal life etc. Since each person (individually or in a group) can already claim

the “minimum existential service” established in the 2010 UN Resolution (A/RES/64/292, of 28 July 2010) to have a certain standard of living without which, it is considered violated the principle of human dignity (De Albuquerque and Roaf, 2012). A fundamental informing principle that is not only present in the Universal Declaration of Human Rights, but in legal texts of domestic law as important as the Constitution (Serenio, 2019) and invoked several times in the Constitutional Court and other judicial bodies (Serenio, 2019) (see **Table 1**).

In relation to **Table 1**, it is important to emphasize here that it is not intended to be completely exhaustive. But just show that since the approval of the UN Resolution (above mentioned) and even before, the implementation of the HRWS has been increasing, both in legislation and in jurisprudence. With regard to the latter, it is also important to clarify that there are many more cases that have been sentenced in the various judicial bodies than those that are included in **Table 1**, as can be seen in the UN Compilation on the matter (Boussard et al., 2014). This compilation of case law shows that HRWS are derived from the rights to education, health and housing—none of which can be effectively realized without adequate WS services. Other cases speak to the importance of controlling pollution of the environment to safeguard HR, including particularly the rights to health and water. The rights of indigenous peoples are dependent on both accessing water resources and their protection from contamination. The impact of extreme poverty on the realization of HRWS also becomes apparent in judgements which expose problems related to default of minimum levels of service,—racist practices where minority communities received inferior services (e.g., in South African Courts, where the long-term impacts of apartheid still result in major inequalities in service provision)—, or respect to material conditions of detention of prisoners (including adequate sanitation), constituting inhuman or degrading treatment.

Although as UN Compilation of HRWS cases law (Boussard et al., 2014) mentions, HR are interdependent, interconnected and indivisible, which means that the judiciary scope to base their judgements claim, not only on the HRWS, but also other human rights.

Furthermore, the above-mentioned UN Compilation deals with one or more of the following principles (non-discrimination and equality, access to information, participation, accountability and sustainability) as defined in international human rights law and/or around one or several HRWS criteria (availability, physical accessibility, acceptability, affordability, and quality and safety).

It is important to underline here, that the selection criteria of the cases law in **Table 1** below were different, aiming that the main human right was the HRWS—without prejudice that others associated with it may also be violated. In addition, within the criteria that make up the HRWS (mentioned above), it is aimed mainly at that criterion that, within the scope of the EU, appears as the most vulnerable. That is, affordability related disconnection or not connection because economic reason—without forgetting the fact that in the EU there are also vulnerable, marginalized or poor groups for which there are violations of other criteria (namely, availability).

It should also be noted that, in EU Member States and in relation to the “affordability” criterion, in many cases what is at issue is not the consumer’s lack of payment capacity. What happens is that the Companies providing WS services use the water cut-off as a pressure mechanism to pay the accumulated debts of the consumer. Although the WS Companies should use other, less coercive means to force debtors to pay (as we will explain later in this article) in my opinion the violation of HRWS only occurs when it is demonstrated that individuals or families cannot afford to pay the water bill.

Finally, it is important to consider that, with regard to HRWS, the ultimate goal of universal coverage cannot be attained overnight. Yet, States have the obligation to demonstrate tangible progress on all criteria and principles (Bos et al., 2016). Progressive realization rules out deliberately regressive measures (such as those that may be considered under an austerity scheme at times of financial or economic crisis) that impede the gradual extension of the right to all, in particular those that contribute to a further deepening of inequalities.

That is, States may claim that they do not have the financial and human resources available to guarantee HRWS based on the principle of reserve for contingencies or *ad impossibilia nemo tenetur* (to the impossible no one is obliged). But, this argument collides with three preliminary issues:

The first is that the burden of proof rests with the States. In other words, States must prove that they effectively lack the means to do so—in this sense, a paradigmatic example is India (Heller, 2015), a country that has the capacity to place a space probe on Mars, but not to guarantee the HRWS to its citizens. That is, if a person or group claims this right, the State will be the one to demonstrate that it really lacks the means to guarantee it. In these cases, they will obviously have to resort to external aid. But, as Maeztu apud Heller (2015) demonstrates, in most cases it is enough to apply 1% of GDP to be able to make expenses.

The second is to respect the principle of equality or non-discrimination between those who have guaranteed HRWS and those who do not. In this sense, Article 14^o of the Treaty on the Functioning of the European Union (TFEU) establishes that services of general economic interest (including WS services) play an important role in promoting social and territorial cohesion. More clearly, the Communication on the matter³ established: “... The needs of users should be defined widely. Those consumers clearly play an important role. For consumers, a guarantee of universal access, high quality and affordability constitute the basis of their needs... Citizens concerns are also of a wider nature, such as that for a high level of environment protection; specific needs of certain categories of the population, such as the handicapped and those on low incomes; complete territorial coverage of essential services in remote or inaccessible areas”.

³Communication from the European Commission: “Services of General Interest in Europe”. Reference: Brussels, 20.9.2000 COM(2000) 580 final.

TABLE 1 | Legislation and Jurisprudence about HRWS.

	Supra-National (EU)	Constitutions (Pes, 2014)	Other water legislation (Pes, 2014)	Jurisprudence (Boussard et al., 2014)	Voluntary self-regulation
Direct	Drinking Water Directive ³	Bolivia Colombia Ecuador Mexico Nicaragua Uruguay South Africa Kenya Congo Uganda	Cantabria Water Law (Cantabria - Spain) Andalusia Water Law (Andalusia - Spain) ¹² Law on housing and energy poverty Catalonia - Spain ¹³	Inter-American Court of Human Rights ¹ Special Mechanism: Tribunal Latinoamericano del Agua ^a South African Constitutional Court ² (Boussard et al., 2014) South African Supreme Court of Appeal ^b Botswanan Court of Appeal (Lobatse) ^c Argentine Constitutional Court (de los Cobos, 2015) Brazilian "Superior Tribunal de Justiça" ^d Colombian "Tribunal Administrativo" (Cundinamarca) ^e Colombian Constitutional Court ^{f,g,h,i} Costa Rica "Corte Suprema de Justicia", Constitutional Chamber ^j Southern District of Ohio (USA) ^k Israel Supreme Court ^l Bombay High Court (Subbaraman and Murthy, 2015) Malayan High Court ^m French Court Administrative d'Appel (Nancy) ⁿ	Paris Municipal Water Company ³
Indirect	Water Framework Directive (WFD) ⁴ . Charter of Fundamental Rights of the European Union(CFREU)	Philippines (Pes, 2014) Ethiopia ⁵ Gambia ⁶ Zambia ⁷	Argentina Chile Costa Rica Venezuela Indonesia Bangladesh Algeria Mozambique Tanzania	REGIONAL LEVEL European Court of Human Rights ⁸ (Boussard et al., 2014) Inter-American Court of Human Rights (Boussard et al., 2014) Special Mechanism: "Tribunal Latinoamericano del Agua" (Boussard et al., 2014) African Commission on Human and Peoples' Rights (Boussard et al., 2014)	Metropolitan Authority of Barcelona ⁹ "Canal de Isabel II" ¹⁰ (Madrid) Water and Waste Regulatory Entity ¹¹ (Portugal)

¹Inter-American Court on Human Rights, *Indigenous Community Xákmok Kásek v Paraguay*, Judgment of August 24, 2010.

²*Mazibuko and Others v City of Johannesburg and Others (Centre on Housing Rights and Evictions, Amicus Curiae) Constitutional Court of South Africa (CCT 39/09) [2009]nZACC 28; 2010 (3) BCLR 239 (CC); 2010 (4) SA 1 (CC), 8 October 2009. According to, M^a Rita MANZARRA GARCIA: «...In this theme, it is imperative to highlight the emblematic case of Phiri, a municipality in South Africa, brought to the appreciation of the local judiciary, which decided that the public must obligatorily ensure, free of charge, one quantum of water per resident. In this case, the municipality adopted a water supply system that guaranteed 25 free liters of water, per person, per day, and which was automatically eliminated if this limit was reached. The Court, in the special case, understood that the amount of water assured per day was insufficient, deciding to increase it to 50 liters of free water, per person, per day, as well as the unconstitutionality of the automatic disconnection of the supply system. Due to the appeal filed, the matter was taken to the Supreme Court, which amended the decision rendered and set the amount of 42 liters of water per resident, per day, as sufficient. In turn, the Constitutional Court to the scenario of the case, reviewed the previous decision and further reduced the amount considered necessary to meet the basic needs of residents, setting it at 25 liters in addition to understanding the constitutionality of the water supply and prepaid count adopted by the municipality» Cf. MANZARRA de MOURA GARCIA, M^a Rita, *Revista Recursos Hídricos*. 41 n° 1: 73-80 (2020). APRH, ISSN 0870-1741 | DOI 10.5894/rh41n1-acquajuris1.*

³Le Strat, A. (Vice-president of the Paris City Council), said at the 'Aqua Publica Europea' meeting, (Sevilla 09.03.2014) that the municipal public company of Paris has a regulation according to which it cannot cut-off the water to families or individuals who cannot afford to pay the water bill.

⁴Water Framework Directive (WFD) – Directive 2000/60/EC, of 23 October 2000, establishing a framework for Community action in the field of water policy.

⁵The 1995 Constitution of Ethiopia provides, in Art. 90, that every citizen has the right to clean water, insofar as the country's resources allow.

⁶The Constitution of Gambia does not explicitly refer to water and sanitation as human rights, but in Article 216° 4 it obliges the State to make efforts to facilitate equal access to clean and safe water for all people.

⁷The Constitution of Zambia provides in Article 112°, that the State shall strive to provide clean and quality water.

⁸The European Court of Human Rights examined the complaint filed by European Roma Rights Center v. Portugal, alleging that gypsies lived in precarious conditions (tents or tents), including lack of drinking water, violating art. 31, § 1 of the European Social Charter. Decision on the merits of the European Committee on Social Rights, with No. 61/2010, of 30 June 2011. [Online]. [Consult. 06.03.2019]. Available online at <http://hudoc.esc.coe.int/eng/#{?%22ESCDIdentifier%22:%5B%22cc-61-2010-dmerits-en%22>.

⁹"Autoridad Metropolitana de Barcelona" approved in 2015 a program to help families meet their water, electricity and gas expenses, and the company "Aguas de Barcelona" supplied water to approximately 30,000 families who could not pay through your Foundation". See *El Economista*, 03/03/2015.

¹⁰"Canal de Isabel II" during the first 9 months of 2014 cut-off the water to 7.700 families who cannot afford to pay the water bill. The following month it decided to reduce the tariff for low-income families to €9 every 2 months, providing 140 liters per day/person. See *El Economista*, 03/03/2015.

¹¹Since 2009, ERSAR has recommended the application of the "social tariff" to municipalities (or entities with the concession of the service). There are municipalities that follow the recommendation and others that do not, it is estimated that of the 278 municipalities in mainland Portugal, only 66 do not have a social water tariff in force. See ERSAR Recommendation N° 02/2018 (Updates and replaces IRAR Recommendation N° 01/2009 regarding social tariffs applicable to domestic users). Available online at <http://www.ersar.pt/pt>.

¹²Law 8/2018, of October 8, on Measures against climate change and for the transition towards a new energy model in Andalusia, adds a new sixteenth additional provision to Andalusia Wate Law (Law 9/2010, of July 30), entitled Human right to water as a vital minimum.

¹³Law 24/2015, of July 29, on measures to address the emergency in the field of housing and energy poverty (Catalonia).

^aFundación Chadileuvú c/ Estado Nacional Argentino y Provincia de Mendoza, *Tribunal Latinoamericano del Agua* (5 November 2012).

TABLE 1 | Continued

^b*City of Cape Town v Strümpfer, Supreme Court of Appeal, 30 March 2012.*

^c*Matsipane Moselethanyane and Gakenyatsiwe Matsipane v The Attorney General, Court of Appeal (Lobatse), 27 January 2011.*

^d*Ademar Manoel Pereira c/ Companhia Catarinense de Agua e Saneamento – CASAN, Superior Tribunal de Justiça, First Chamber, 20 April 1999.*

^e*Dagoberto Bohórquez Forero c/ EAAB Empresa de Acueducto y Alcantarillado de Bogotá y Otros, Tribunal Administrativo (Cundinamarca), 3 May 2012.*

^f*Hernán Galeano Díaz c/ Empresas Públicas de Medellín ESP; y Marco Gómez Otero y Otros c/ Hidropacífico SA ESP y Otros, Corte Constitucional, Ninth Chamber of Revision, 5 August 2010.*

^g*Carolina Murcia Otálora c/ Empresas Públicas de Neiva ESP, Corte Constitucional, 6 August 2009.*

^h*Flor Enid Jiménez de Correa c/ Empresas Públicas de Medellín, Corte Constitucional, 17 April 2007.*

ⁱ*Carlos Alfonso Rojas Rodríguez c/ ACUAVENORTE y Otros, Corte Constitucional, Fourth Chamber of Revision, 3 November 1992.*

^j*Ileana Vives Luque c/ Empresa de Servicios Públicos de Heredia, Corte Suprema de Justicia, Constitutional Chamber, 27 May 2003.*

^k*Kennedy v City of Zanesville, District Court (Southern District of Ohio, Eastern Division), 10 July 2008.*

^l*Abadallah Abu Massad and others v Water Commissioner and Israel Lands Administration, Supreme Court, sitting as the Court for Civil Appeals, (5 June 2011).*

^m*Rajah Ramachandran v Perbadanan Bekalan Air Pulau Pinang Sdn Bhd, High Court (Malaya), 2 March 200.*

ⁿ*Préfet du Doubs c/ Commune d'Audincourt, Cour Administrative d'Appel (Nancy), 11 June 2009.*

Law 2/2014, of 26 November, on Water Supply and Sanitation in the Autonomous Community of Cantabria. Official Gazette of the Autonomous Community of Cantabria no234 of 4 December 2014.

The third is the definition of what this “minimum existential service” consists of. In other words, what are the minimum requirements of the service that must be provided in order to respect the principle of human dignity.

This “minimum” is perfectly defined in the 2010 UN Resolution (above mentioned). Indeed, what is new about this Resolution—in relation to previous legal texts—is the fact that it individually and simply delimits what the RHWS consists of and converts it into an autonomous and subjective HR—that is, individual and non-waivable. In other words, each person is entitled to claim this minimum, although: it is only this minimum (no more) and it is only “free” for those who cannot afford to pay. This minimum is perfectly delimited, taking into account several parameters: in quantity (50–100 liters per person and day); in quality (without microorganisms or other contaminating substances); acceptable (in terms of color, odor and flavor, as well as in cultural terms); physically accessible (maximum distance 1,000 meters from the home and collection time not exceeding 30 min); and; at a reasonable price (should not exceed 5% of family income). These requirements are further developed in the Good Practice Manual (De Albuquerque and Roaf, 2012).

In my opinion, thinking about the impact of climate change on water (Fundação Gulbenkian, 2020; UN Special Report in Drought, 2021), it is necessary to differentiate between water-abundant and water-scarce regions. That is, the “water scarcity factor” should be introduced at water prices, aiming to increase the value of water where it is scarcer and therefore more precious. This is the main instrument for consumers to become aware of the real value of water and change their behavior in order to save more water or pay more for it. There are already several studies showing the disparity in water prices existing at the national level (Godinho, 2012; Martínez-Espiñeira et al., 2012; Roseta-Palma et al., 2013; Gonzalez-Gomez and García-Rubio, 2018) and all over the world (Locke, 2021). Sometimes, we find the paradox that in some of these regions, water is cheaper than in the North, where there is plenty of water (Locke, 2021). Consequently, in my opinion, the 5% proposed by the UN (and mentioned above) must be added to a percentage that corresponds to the “scarcity factor” (Monteiro and Roseta-Palma, 2011; Pinto and Marques, 2017; Pinto et al., 2021).

Therefore, the following question arises: Should the water be cut-off for those who cannot afford to pay the bill?

Cut-Off of Water and Sanitation Services for Non-payment Introduction

This subjectivation and exhaustive delimitation in the above-mentioned terms of the HRWS is not only useful in disadvantaged countries, but also in the more industrialized ones (Martins et al., 2013, 2016, 2019; Jones and Moulton, 2016; Zetland, 2016; Vanhille et al., 2018; Teodoro, 2019; Yoon et al., 2019; Lara and del Moral, 2020; Lopez-Ruiz et al., 2020). In the latter, HRWS continues to be denied to vulnerable families and groups and there are setbacks in times of economic crisis. That is, people who had the WS services guaranteed, lose it when they are no longer able to pay.

During the crisis in the Eurozone, Greece, Ireland and Portugal are the first three countries to come under the direct tutelage of their creditors, after having signed with “the Troika” composed of the European Commission, the European Central Bank and the International Monetary Fund “aid” plans. But these agreements generate new debts and impose unprecedented austerity measures on populations. Although “the Troika” did not rescue (or at least, not formally) other Member States, like Spain or Italy, they also let the austerity measures be felt in them. For example, as a result of it, at the beginning of 2014 (Méndez, 2014), there were 500,000 water “cut-off” notices in Spain and more than 3,600,000 households were struggling to pay the water bill. It is estimated that more than 9,200,000 people were at risk of seeing the HRWS violated. In Portugal, according to a study of Coimbra University’s (Lopes, 2021), the number of notices for non-payment increased considerably, although the Municipalities tended to ensure the water supply, even in the case of the WS Services Companies being private.

I do not have data from all other Member States that have suffered the austerity of the so-called “Troika crisis”, but as Heller says, although the most worrying situations are found in disadvantaged countries, there are also risks of setbacks in the more developed ones (Heller, 2015). Detroit (in the USA) is one of the clearest examples. The deindustrialization process

meant that a high percentage of the population was disconnected from the WS services due to inability to pay, while the water tariff increased.

Before Cut-Off of Water and Sanitation Services

Non-payment of WS services poses providers with the challenge to distinguish between those customers for whom the prevailing tariffs are truly unaffordable and those who are simply unwilling or forgetting to pay—making this distinction is a delicate matter and needs to be done in a legitimate and non-stigmatizing way (Bos et al., 2016).

Raising tariffs to make up for lost profits creates the risk of entering a vicious circle and of expanding the group of customers for whom the service is genuinely unaffordable. Whenever a customer falls into arrears, providers should attempt to contact the user to understand the reasons for his behavior.

Rather than adopting a draconian approach to dealing with non-payers, a balanced policy of service restrictions will benefit WS Services Companies and customers alike, with optimal consideration of the HRWS. Before taking action to cut-off WS services in reaction to non-payment, customers should be given the right to enter into an administrative process that allows them to discuss their situation with the WS Services Company and agree on a course of action to address the repayment of the debt.

Examples of such procedures can be found in the Flemish part of Belgium and in France where a 2004 law (updated in 2013) requires a procedure where the assistance of the rightsholder request from an administrative committee (*Fond Solidarité Logement*) in case of inability to pay—this procedure has to be completed before any cut-off decision can be made.

In some countries, a cut-off of water and sanitation services can result in serious other repercussions for families. In extreme cases, parental responsibilities may be considered not complied with and children may be taken from their families to foster homes (Bos et al., 2016). Consequently, WS Services Companies must act with due diligence and take all necessary measures to avoid cutting off water to families who cannot afford to pay and who may be in very precarious situations.

After Cut-Off of Water and Sanitation Services

Despite the importance of knowing the techniques that WS services companies follow to avoid cutting-off water, it is even more important to know what can happen when water is cut-off improperly. That is, to families who are unable to pay the bill. In other words: could the violation of HRWS be invoked by those who cannot pay the bill?

Once HRWS is defined as a subjective human right (Pes, 2014; Garcia, 2016; Vieira, 2016), we have to conclude that it has direct applicability. That is, people (individually or in groups) can demand the State to guarantee their HRWS. Indeed, the most important practical consequence of considering the HRWS as a subjective RH is the legitimacy of each citizen to obtain judicial and extrajudicial protection from the corresponding authorities (Serenio, 2019).

It could be argued that the UN Resolution on the matter is not binding. But this would be a weak argument, considering the various paths that lead to the conversion of soft law into

hard law: first, the possible development by the UN itself through binding instruments; second, the reception of UNHR in national constitutions transformed into “fundamental rights” (e.g., Article 8° 1 Portuguese Constitution refers to the norms and principles of general or common international law and a similar expression can be found in many other constitutions); third, the work of Jurisprudence (an extremely important source of law) which, in fact, is applying the HRWS (Boussard et al., 2014; Subbaraman and Murthy, 2015; Sereno, 2019). Last, but not least, is the publication and entry into force of the HRWS through either European Union Law or national legislation. About the latter, there are several cases that were compiled in a previous paper where the existing diversity can be appreciated (Serenio, 2019).

However, the big news regarding HRWS is currently in EU law. On December 20th of 2020 was published Drinking Water Directive⁴. It establishes in 16° article: “...Member States shall take the necessary measures to improve or maintain access to water intended for human consumption for all, in particular for vulnerable and marginalized groups, as defined by the Member States...”

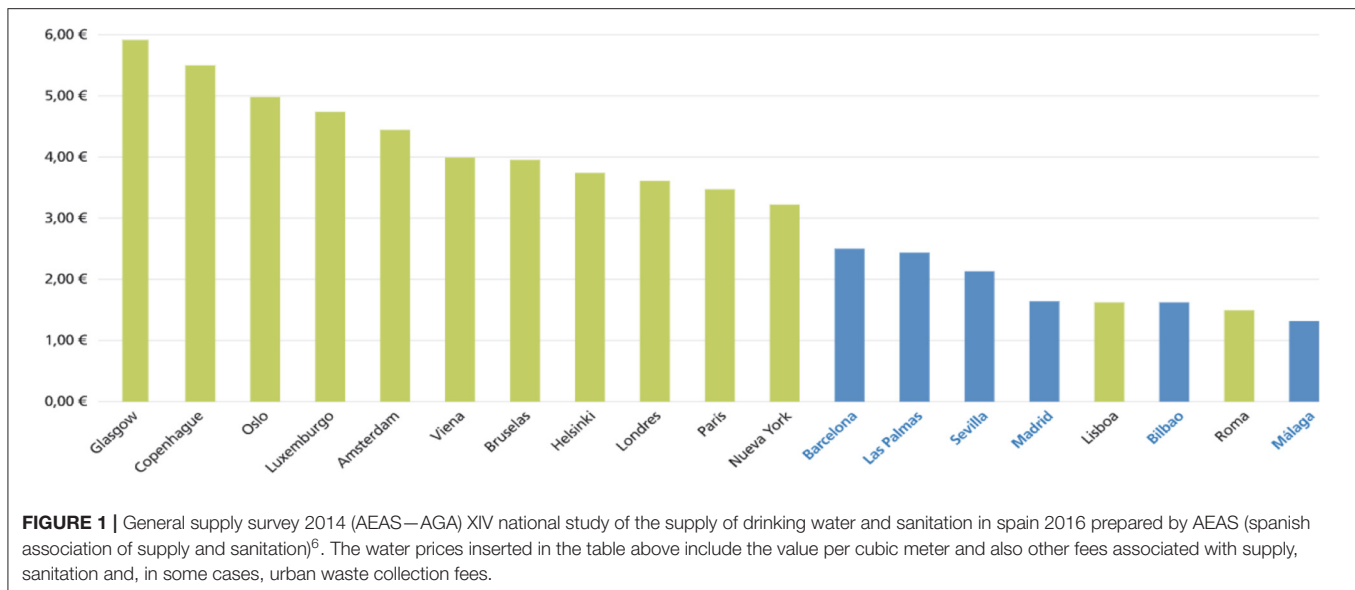
This directive originated from the exercise (for the first time in the EU History) of the right to petition in the European Parliament (EP). It had been included in the original EU law through the Lisbon Treaty—Article 20° d) Treaty on the Functioning of the European Union (TFEU) in conjunction with Article 227° TFEU.

EP Report N°. A8-0228/2015⁵ gathers the philosophy of this first European citizens’ initiative, “Right2Water”, considering water not a commercial good, but a public good—the same *ratio legis* was already present, in fact, in the Water Framework Directive (WFD) since the year 2000. In addition, “Right2Water” collected nearly 1.2 million signatures with the aim that the EU would publish specific legislation to recognize the HRWS and promote the provision of water and sanitation as essential public services for all.

Although there are those who criticize the Drinking Water Directive (Moral, 2021) for having fallen short of UN Resolution 2010 (above mentioned), the truth is that the most important step has already been taken. That is, EU Member States must guarantee everyone (including the most vulnerable) essential services such as water. Therefore, the opposite would be discriminatory and violate the principle of equality, in addition to HRWS. From here, the MS has a large margin of maneuver to decide how they are going to carry out the transposition of the HRWS, whether through the Constitution or other national legislation and may even reach the level of detail of delimitation of the HRWS that the 2010 UN Resolution reached. In any case, this will always be the light that will illuminate the interpretation of either the Drinking Water Directive or the national legislation that implements it. Another matter in which Member States will have ample room for maneuver is in delimiting what they

⁴Drinking Water Directive (EU) 2020/2184, of 20 December, on the quality of water intended for human consumption.

⁵EP n.° A8-0228/2015. *Relatório do Parlamento Europeu*. Disponível em <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A8-2015-0228+0+DOC+PDF+V0//PT>.



consider “vulnerable and marginalized groups”. This is those who, presumably, may not be able to pay the water bill, thus raising another question inherent in this premise: Who will foot the bill for those who cannot pay to avoid cutting the water?

DISCUSSION: WATER FOR ALL VS. WATER FULL COST RECOVERY

“Water for all” doesn’t mean “water for free”. On the contrary, it will be necessary to increase the price of water to comply with the principle of full cost recovery (established in article 9° of the WFD) that includes not only capital and investment (C&I) and the cost of operation and maintenance cost (O&M) of water infrastructures and services, but also environmental cost and resource cost (ERCs). That is, along with what are typically called financial costs (C&I and O&M), we have to add the cost of environmental damage imposed by water users and beneficiaries (environmental cost) and the opportunity cost due to resource depletion (resource cost). As I said before, in this resource cost, the water scarcity factor should be introduced, taking into account the scenarios foreseen for Southern Europe as a consequence of climate change. WFD is EU-wide and sometimes Southern specific problems such as resource scarcity or cyclical droughts are not adequately addressed.

Although there is a greater shortage of water in southern Europe, the incidence of the water bill on the family budget is, on average, 0.9%, well below the 5% set by the UN as the limit of affordability of the Human Right to Water. Through these water bills it is impossible: on the one hand, to guarantee the full cost recovery (FCR), required by WFD; on the other hand, transmit to domestic consumers the real scarcity of the water in Southern Europe. As can be seen in **Figure 1**, cities in Northern Europe pay much more than in the South—where water scarcity is greater. Although there are exceptions in some cities (e.g.,

Barcelona, Palmas and Sevilla) where water bill represent more than 3% of family income (Lopez-Ruiz et al., 2020).

It should be noted that there is no confusion here between the FCR concept and the affordability concept. What we are trying to express is that Southern European citizens pay much less for urban water services than they could afford to pay and what would be necessary to pay the real cost of water. It should also be mentioned that, in order to practice such low tariffs, in many cases subsidies are used, either from the State or from the municipalities, which not only violates Article 9° of the WFD, but also the EU rules on competition—specifically, Articles 106°-109° of the Treaty on the Functioning of the European Union (TFEU), Protocol n° 26 and EU Commission Regulations on the matter⁷. In this sense Article 106° 2 very clearly states that: “Undertakings entrusted with the operation of services of general economic interest or having the character of a revenue-producing monopoly shall be subject to the rules contained in the Treaties, in particular to the rules on competition, in so far as the application of such rules does not obstruct the performance, in law or in fact, of the particular tasks assigned to them. The development of trade must not be affected to such an extent as would be contrary to the interests of the Union”.

For example, currently, there is a complaint to the European Commission against Portugal, which could soon be sent to the EU Court of Justice (Jornal Económico, 2021; Público, 2021c), based on State aid to public companies providing urban water services, discriminating against private companies. But, in addition to the various arguments alleged in the complaint

⁶This **Figure 1** was published by ABC Jornal, 15/08/16 [See also: Organisation for Economic Co-operation and Development (OECD), 2003, 2010; Asociación Española de Abastecimientos de Agua y Saneamiento (AEAS), 2016a,b].

⁷Commission Regulation (EU) 360/2012 of 25 April 2012; Commission Regulation (EU) 2018/1923 of 7 December 2018 and Commission Regulation (EU) 2020/1474 of 13 October 2020.

and related to EU rules on competition (previously mentioned), the private companies in the WS sector complain about the breach of article 9° of the WFD, specifically, the principle of full cost recovery (FCR). The fact that the tariffs charged by most entities in public management are insufficient to cover the respective costs, creates real deficits, compensated by resorting to the State budget or municipal budgets—in both forms charged to taxpayers—violating consumer principles—payer, indirect expression of the polluter-pays principle, thus calling into question the useful effect of European environmental policy and principles such as the economic and social value of water, as a fundamental good.

Furthermore, in many EU municipalities (Piedade et al., 2018), for example, Lisbon, the tariff shown in the graph above is in practice even lower. This is because the tariffs for urban water services appear on the same bill as those for solid urban waste collection services. Municipalities talk about “paying the water bill,” but in reality, they are also paying the “garbage bill” (Público, 2021a,b). That is, as a matter of fact, the price of water is much lower than the final global value paid by the consumer.

However, “water for all” (i.e., guarantee HRWS) and “full cost recovery” are not contradictory. It is feasible to reconcile them if the WS services companies can fully recover their costs (with complementary fiscal subsidies if needed) and if cross-subsidies and fiscal subsidies targeting the poorest make the tariffs affordable to the different categories of users (Lopez-Ruiz et al., 2020). Experience shows that subsidy mechanisms that are set up with the intent to ensure affordability of services are far more efficient at achieving this objective if they target poor people rather than services for the benefit of all users. The design and implementation of specific, dedicated services for the poor are not recommended—experience shows that services specifically designed for the poor usually turn out to be poor services (Heller, 2015). In any case, it is essential to check if subsidies work as initially intended and benefit those who are most in need. There are several options for targeted subsidy mechanisms available (Arrojo, 2006; Martins et al., 2013, 2016, 2019; Pinto and Marques, 2017; García-Rubio et al., 2019; Fagundes, 2022).

Although European Green Deal (EGD) doesn't mention “water poverty”, only “energy poverty”, it is obvious that those who cannot even pay the water bill are poorer than those who cannot pay the energy bill. Therefore, according to The European Pillar of Social Rights, will guide action in ensuring that no one is left behind. So, if the price of water increases, State have to subsidize vulnerable people, families and groups who cannot afford to pay the water bill.

The supply and sanitation companies (whether public or private) must seek the economic and financial balance of their operations with the aim of profit. This means implementing full cost recovery or financial cost (C&I and O&M) and ERCs, considering in the last one the called “water scarcity factor” and still make some profit at affordable prices. But, these water prices must convey to society the message that water is an increasingly scarce resource and therefore more precious and more expensive. Why are we willing to pay a much higher bill for electricity or telecommunications? Energy and the internet are not more

important in our lives than water. Consumers must change their behavior: getting ready to pay more and save more water.

We cannot expect supply and sanitation companies to be Charitable Societies, but we can demand that they have social and environmental responsibility. This consists, first of all, in distinguishing between customers who do not pay because they cannot afford to pay, and those who do not pay for other reasons. There are mechanisms, such as those mentioned above (Fond Solidarité Logement), to make this split-up.

I am not in favor of banning water-cutting (as is the case in the England), as such a solution would be counterproductive. In other words, more people would stop paying for water. But, cutting off the water to those who cannot afford to pay constitutes an HRWS violation, so State have to subsidize these families to be able to pay the minimum of quantity established by UN (previously referred) and supply and sanitation companies must cooperate with the State and act with due diligence to prevent water cuts-off and HRWS violations.

CONCLUSIONS

Once HRWS is defined as a subjective human right, I have to conclude that it has direct applicability. That is, people (individually or in groups) can demand the State to guarantee their HRWS. Indeed, the most important practical consequence of considering the HRWS as a subjective HR is the legitimacy of each citizen to obtain judicial and extrajudicial protection from the corresponding authorities.

This subjectivation and exhaustive delimitation of the HRWS is not only useful in developing countries, but also in the more developed ones. In the latter, HRWS continues to be denied to vulnerable people and groups and there are setbacks in times of economic crisis. That is, people who had the WS services guaranteed, lose it when they are no longer able to pay. This happened in some EU States during the “Crisis of the Eurozone”, but measures should be taken so that it does not happen again because of the economic crises that may arise in the future.

However, “water for all” doesn't mean “water for free”. On the contrary, it will be necessary to increase the price of water to comply with the principle of full cost recovery (FCR), including the “factor or scarcity” in the European Southern Regions. But, guarantee HRWS and FCR are not contradictory. There are mechanisms to avoid cut-off water for those who cannot pay the bill. To activate these mechanisms, the social responsibility of WS service companies is essential. These must cooperate with the State in order to distinguish between families that cannot afford and those that cannot pay for other reasons. In the first case, cutting off water constitutes a violation of the HRWS. Therefore, WS service companies should not do this, but neither should they be the ones to foot the bill. According to The European Pillar of Social Rights, States will guide action in ensuring that no one is left behind. So, if the price of water increases, State have to subsidize vulnerable people, families and groups who cannot afford to pay the water bill.

In short, currently, some EU Member States are subsidizing public water companies, risking distorting competition in the European Single Market, as well as failing to comply with WFD. In my opinion, it is not these companies that should be subsidized, but vulnerable individuals and families who cannot afford to pay the water bill to guarantee their HRWS of these people.

There may be other forms that have not been explored or are not sufficiently explored to achieve the same objective, which in essence is, to convey to consumers the “real value of water.” This concept is gaining importance in water management research and should be addressed in future works.

I also want to point out that if, as I defend, the way to reach the “real value of water” is to increase the tariff for water and sanitation services, this increase must be progressive and take into account the particularities of each case. That is, it would be necessary to study the cost of scarcity in each of the southern regions of the EU and then determine what would be the tariff that guarantees the FCR required by the WFD. But, this very detailed work was not carried out in this article. It constitutes, however, a challenge for new research works that may be carried out on the subject.

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DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author/s.

AUTHOR CONTRIBUTIONS

The author confirms being the sole contributor of this work and has approved it for publication.

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