



DRINKING WATER FOR ALL | HOW TO IMPLEMENT AFFORDABILITY AND PUBLIC PARTICIPATION MECHANISMS IN THE EUROPEAN UNION?





Paris

20, rue Laffitte
F-75 009 Paris

T | +33 (0)1 49 49 03 30
F | +33 (0)1 49 49 03 33

Brussels

Rue de la Fauvette, 92
B-1180 Bruxelles

T | +32 (0)2 374 23 13
F | +32 (0)2 358 56 48

www.institut-thomas-more.org | info@institut-thomas-more.org

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| Abstract

The European Union is debating on the question of implementation of access to drinking water and sanitation as a human right. **In EU countries, the most common challenge with respect to this issue is related to the affordability of water bills.** Low-income households may find it difficult to pay their bills. Large families may be adversely impacted by tariff structures that make water more expensive to large consumers. The participation of users and civil society in decision-making processes might also be improved.

If the European Union seriously wants to declare safe drinking water and sanitation as a human right, it can only be done by taking into account these challenges. However, **the recent debate has been driven by arguments for and against private sector participation, rather than by affordability issues.** This dispute too often driven by ideological considerations does not help to reconcile the somehow antagonistic goals of providing cost-effective, high quality access to water while taking into account environmental and affordability issues.

This Tribune argues that the success on recognising water as a human right in the EU does not depend on the legal form of the operating entity – as both public and private bodies have a long history of practice. It rather draws the **attention to intelligent and locally-adapted solutions that have been implemented in the EU to tackle affordability issues.** Resolving affordability challenges implies that cost-effective public services keep the overall cost as low as possible and at the same time provide specific aid mechanisms that target those water-users that have real difficulties to pay water bills. In Europe, public and private water operators have shown their capacity to propose and implement intelligent and locally-adapted solutions to these affordability challenges. Aid mechanisms are mostly designed and decided by governments, and then implemented by operators. However, this Tribune also identifies several cases initiated by private operators who have been able to propose subsidy mechanisms, including some that they have funded themselves.

To find adapted solutions for affordability challenges, all stakeholders have to participate in the process: governments and municipalities, their employees, as well as the representatives of the civil society such as consumer associations and NGOs. **High quality water is only good if everyone can pay for it. And only if everyone can, it deserves the status of a human right.**

In 2010, the General Assembly of the United Nations recognised water and sanitation as a human right, attributing it the same status as the dignity of the individual and personal freedom. In the European Union, several actors such as private operators and civil society organisations, through the channel of the European Citizen Initiative “Right2Water”¹, have called on European legislators to follow suit. This underlines the importance water plays daily in human lives as a vital resource.

However, contrary to other human rights, drinking water is no immaterial good. Rivalry exists, meaning that water consumed by one person cannot be consumed by another, which is a particular severe challenge in places in great hydraulic stress. Also, water generally does not appear in exactly the same place where it is consumed, raising questions about abstraction rights, production, transport, distribution and the related costs.

As these restrictions apply, establishing a framework in which drinking water is given the status as a human right has to take into account economic and practical realities of water services. Efficiency in all stages from production to consumption is crucial to preserve sustainable use of the source and ensure the sustainability of the service. Prices have to be affordable to everybody, notwithstanding the limitations of short supply and high demand that might occur or the cross-subsidies that this might imply. By comparison, human dignity fortunately does not have a price label, and can't, at least directly, be bought.

If the European Union seriously wants to declare safe drinking water and sanitation as a human right, it can only be done by taking into account these diverse challenges. This paper shows that acceptable access to drinking water and sanitation is widespread in the EU, but that not everyone can afford its use easily. Also, it raises the question of resolving affordability issues while protecting sources and maintaining infrastructure sustainably. The topic being complex and also politically sensitive, the ambition of this paper is to outline the principal challenges and suggesting solutions by examining a set of best practices.

Several measures designed by joint efforts of private and public stakeholders have been implemented in order to tackle the affordability challenges and improve the participation of users and civil society in decision-making processes. Due to the very specific necessities resulting from local organisation of drinking water and sanitation services, addressing the challenges on a decentralised level is required. Affordability schemes based on subsidies targeting the most vulnerable households prove efficient².

| Safe Drinking Water as a human right

Water is vital for human life. A human being cannot survive more than three days without drinking, and a person needs water for daily hygiene, to support economic activity or to grow crops. A person needs to drink at least 1.5-2 litres of water a day, a volume that may be significantly higher depending on the climate. Overall, the UN estimates that 20 litres are necessary to satisfy the basic daily needs of a person, but this number also varies significantly with the place it is living in.

It is only logical that access to safe drinking water was finally recognized as a human right by the United Nations in 2010. As a part of the eight Millennium Development Goal program, amelioration of access to safe drinking water and sanitation, much effort is being dedicated to tackle the challenging task of fulfilling the promise made 10 years later by recognizing the human right. At the same time, a Special Rapporteur on the

¹ See <http://www.right2water.eu>.

² This paper focuses solely on drinking water and sanitation. When the term “water” is employed, the reader should keep in mind that it excludes water use for industry and agriculture, both other challenging fields but not subject of discussion here.

human right to safe drinking water and sanitation, Catarina de Albuquerque, was installed to develop best practices and monitor actions taken on a global scale.

For historical reasons, the situation in Europe certainly is better than in other parts of the world. The European Citizens' initiative "Right2Water" claims that the European Union should guarantee all inhabitants the right to safe drinking water and sanitation. At the same time, private operators called for formal recognition through inclusion in the European Charter of fundamental rights. These initiatives have put water and sanitation issues high up the agenda, both on the global as well as the European level, giving it a crucial momentum to overcome water-related challenges.

However, the picture of the world shows that there still is room for improvement. According to the UN Secretary General, close to one-third of people drink water that endangers health; UN statistics number about 2.5 billion people who do not use improved sanitation facilities – meaning that for billions of people access to water and sanitation does not satisfy the standards defined by the international law. They include sufficiency, availability, accessibility, safety, acceptability, affordability, non-discrimination and public participation.

Those criteria show that simple access to safe drinking water is just a first step. Sufficient water supply is necessary to ensure personal hygiene, improving general health and preventing the spread of contentious diseases. Clean water is needed to wash and prepare food. Lack of wastewater treatment can contaminate existing water sources. Available water and especially sanitation facilities do not help if they are not used because they are in an unacceptable condition. Gender-specific requirements are to be met, respecting the local cultural standards concerning privacy and dignity. The same is true if safety requirements are not met and personal security is threatened by the use of the facility. Eventually, this point concerns mostly women. Finally, affordability is a crucial requirement: having a source of water in the close vicinity does not help if the user cannot afford its use. This is true for opportunity costs if the source is located too far from the user, as well as if the prices are too high.

The European Union fortunately is in a good position. Despite some of the newer adherents that still are not able to provide access to safe water to all of their citizens, this is a minor issue. Also, sanitation facilities in place generally meet highest standards. Despite the good news, affordability may still not be guaranteed even in the most developed member states of the EU. For some of the most vulnerable households, the monthly water bill may still be too high, obliging them to cut back on essential use of water or else on other vital necessities. At the same time, there is still room for improvement when it comes to the quality of the water provided. Finally, the decision-making process often leaves out those who are most concerned by the subject: the citizen and consumer itself.

Water being a vital commodity, the political debate often seems to be driven by ideological concerns rather than an assessment of best practices. Clearly, the outstanding value of water in daily life has to be taken into account when discussing how to tackle the above mentioned challenges. Also, the economic specificities of the water supply and treatment system as a natural monopoly cannot be neglected. Based on these assumptions, this paper proposes a set of recommendations drawn from case studies throughout the EU how to improve water supply and sanitation.

| The water supply systems in Europe

Drinking water supply systems as well as wastewater treatment constitute natural monopolies. Sunk and operating costs are high. Externalities tend to have a great impact, ranging from non-sustainable depletion of aquifers to serious health issues if water is contaminated. Finally, demand is inelastic, at least when it comes to the satisfaction of basic needs. A person cannot decide to cut back on drinking a minimum amount of water per day, as the consequences would result in severe and probably lethal health problems.

If safe drinking water and sanitation were to be recognised as a human right by the EU, other challenges come into play. Unlike freedom and dignity for example, water is a finite resource (even if good management could sustainably satisfy the most vital needs of all people in most parts of the world). Rivalry exists. For drinking water to be available in cities, the water resource has to be abstracted, transported, purified and distributed to each user; then after use it must be collected and treated to remove pollution. All these activities constitute the water and sanitation services; they have a cost. The importance of the economic factor is what distinguishes water from many other human rights that have a rather political implication (and solution). To put it plainly: accepting safe drinking water as a human right – meaning that everybody wanting it can enjoy water and sanitation services – cannot be separated from the fact that it has to be produced, and in an efficient and sustainable way. Water supply systems worldwide are usually state (national or local government) monopolies. Many are organised with operators from the public sector with mixed results. While some communities have succeeded in constructing and maintaining an efficient network, this has not been the case in all countries. In other states such as France most of water supply systems are operated by private firms, some of them since their beginning in the XIXth century, with overall positive results. In 2012, around 962 million people worldwide receive water or wastewater services directly or indirectly from private companies³.

Major changes in the organisation of the water and sanitation sector occurred in the 80ies, when the UK experimented with reorganising parts of it. Several reasons explain the change: technological innovation, better comprehension of the effects of state monopolies as well as general shortage of public funds. Steps towards private management were undertaken in the late 80ies and the 90ies in many developing countries. While most of state monopolies from telecommunications to electricity were affected in developed countries, water supply and sewage are more disputed due to the specificities mentioned above. Different forms of private sector implication have been realised, ranging from simple maintenance contracts to full scale privatisation that includes selling off the infrastructure. Most common are lease contracts (*affermages*) and concessions. While all forms have their advantages and disadvantages, empirical case studies suggests that the legal framework of the regulation authority represents an important part to assure efficient water management. Findings – in both the developing and the developed world – show that in areas of poor governance both public and private water operators experience difficulties to meet the goal of improving their services. At the same time, taking on board of private companies tends to improve the overall performance of all operators, given an efficient and independent regulatory body has been installed⁴.

³ Pinsent Mason Water Yearbook 2012-13, available on <http://wateryearbook.pinsentmasons.com>.

⁴ A multitude of studies on the topic exists. A comprehensible survey on existing publications includes: George R.G. Clarke, Katrina Kosec, Scott Wallsten, *Has Private Participation in Water and Sewerage Improved Coverage? Empirical Evidence from Latin America*, World Bank Policy Research Working Paper 3445, November 2004; Scott Wallsten, Katrina Kosec, *Public or Private Drinking Water? The Effects of Ownership and Benchmark Competition on U.S. Water System Regulatory Compliance and Household Water Expenditures*, AEI-Brookings Center for Regulatory Studies, 2005; Antonio Estache, Sergio Perelman, Lourdes Trujillo, *Infrastructure Performance and Reform in Developing and Transition Economies: Evidence from a Survey of Productivity Measures*, World Bank Policy Research Working Paper 3514, February 2005; Alexei Tsybine, *Revisiting the Public Interest in Private Water*, Public Works Financing Vol. 168, December 2002; Philippe Marin, *Public-Private Partnerships for Urban Water Utilities*, The International Bank for Reconstruction and Development, 2009; Sebastian Galiani, Paul Gertler, Ernesto Schargrotsky, *Water for Life: The Impact of the Privatization of Water Services on Child Mortality*, Journal of Political Economy, 2005, vol. 113, no. 1; Henri Smets, *De l'eau potable à un prix abordable*, Académie de l'Eau, Paris, 2008; Aymeric Blanc, Sarah Botton, *Services d'eau et secteur privé dans les pays en développement*, Agence Française de Développement, Paris, 2011.

| Improving water supply and sanitation

Since the first experiments with private sector involvement, the situation of safe water supply and sanitation has improved globally. Ameliorations have mainly been made in accessibility, quality, and efficiency. Thus, cases of water contamination have been reduced both when private companies are involved as well as if the municipality or the state continue providing the services. Efficiency in terms of reducing losses has shown major improvements when a private actor is involved. Prices however tend to rise in the aftermath of privatisation other than simple maintenance contracts, partly due to correction of previous under-pricing while the water system was operated by a public body and mostly due to additional investments decided by public authorities.

While the difference between the performance of private and public supplies may be small, the development during the last four decades suggests that the factor of competition introduced by successful examples of private company involvement has contributed to the improvement observed. If good governance is the most important single factor, having alternatives to public monopolies puts pressure on poorly performing entities to improve their organisation.

The case of Argentina exemplifies this development. Until 1980, the federal company *Obras Sanitarias de la Nación* (OSN) and a number of not-for-profit cooperatives were in charge of water supply and treatment. In the following decade, responsibilities were transferred to local state run or non-profit organisations. In the 1990ies, about half of them were transferred to private for-profit management, serving almost 60% of the population. These measures aimed mainly at the reduction of the huge deficits accumulated by the public sector. As investment in the infrastructure has been neglected during the 70ies and 80ies, it became clear that necessary investments could only be made with the contribution of private capital.

The results were mostly positive. During the 1990ies, general access to piped water improved in the whole country, without regard of an entity having seen private sector participation or not⁵. These findings underline the hypothesis that allowing competition between private and public water and sanitation management does improve overall performance. Also, the general assumption that the poorest households may suffer from privatisation does not hold to the empirical findings. On the contrary, some cases suggest that large improvements have been made after allowing private sector participation.

Buenos Aires is among the most instructive cases. In 1993, a 35-year concession was on by the consortium *Aguas Argentinas* which *Lyonnaise des Eaux* at its lead. In the 6 years that followed major improvements were made in terms of reducing water losses, reliable pressure even during summer month, and network extension. Yearly investment rose from average US\$ 2,5 million from 1983-1993 to average US\$ 200 million from 1993-2000.

Galiani shows that in Argentina child mortality was reduced more sharply in areas where private companies were involved, and even more so for lower and lowest income households⁶. Thus, causes of death for under 5-years old due to contaminated drinking water declined by 14,4% and 26,5% for poor and extremely poor municipalities, respectively. It is important to bear in mind that these results are not due to private management *per se*, but also to the regulatory framework accompanying it.

In the European Union, the case of the city of Bucharest also shows the impact of reviewing water and sanitation management. In 2000, prior to the access to the EU, both water and sanitation services had to be improved to meet required standards. It was clear that only an external operator with sufficient experience could provide the quick improvements needed. A long-term contract for 25 years was fashioned in a way that the company succeeding in the bid would be responsible for managing water and sanitation services and for all capital investments. Tariffs were fixed upon signature of the concession contract, while they were to be reviewed every 5 years by the operator and the municipality. Service levels were pre-defined and penalties for non-compliance apply.

⁵ Clarke, Kosec, Walksten, *op. cit.*

⁶ Galiani, Gertler, Schargrodsky, *op. cit.*

Research suggests overall positive results, especially when it comes to water quality, reduction of leakage, and customer satisfaction. Meanwhile, tariffs were maintained below the average of other Romanian cities. Investments made by the private operator were largely amortised by cost savings due to efficiency gains that accounted for US\$349 million in the first 8 years of the concession⁷.

There are certainly spectacular cases of failure when private operators entered water sanitation management. The reasons are plentiful: asymmetric information, unequal negotiation positions, public officials looking for personal gains, lack of transparency during bidding processes. The list of public failure is even longer, but there also are more cases of public water and sanitation management. The success of private-sector participation (or not) does most significantly rely on the ambition of public water policy, the way contracts are fashioned and what a company can offer. Often the open discussion on the subject seems to have positive repercussions on improving performance and quality – whether a private operator is on board or not.

| Ensuring water affordability in Europe

While the same economic and structural constraints apply in the EU, the situation is completely different from those in developing countries. Institutions, especially in the countries of the former European Community, have long grown traditions of good and transparent governance. The same is true for infrastructures in all sectors. Citizen's participation in decision-making processes tends to be higher in Europe than in the developing world. Also, a higher median income allows most households full access to goods of basic needs. Private sector participation is considerably higher in the EU (more than 33% of its citizens receive indirect or direct water or wastewater services through operation by private companies), but those shares vary highly depending on the country.

If safe drinking water and sanitation are to be recognised as a human right throughout the European Union, the current reality shows that some improvements have to be made in order to fulfil the required standards. Certainly physical access to piped water is in place in most member states of the EU. Still, several million people on Eastern European countries do not have adequate facilities allowing them access to safe piped water. A bigger challenge is affordability: Water tariffs may be affordable for over 95% of the population, leaving out 5% which are the most vulnerable members of society. Also, quality standards are not met in the whole of the EU. While severe contamination hardly occurs, tap water may still be unhealthy to drink due to pollution with agents such as nitrate.

Tackling those challenges will demand a combined effort of public and private water operators as well as regulators and the civil society. In several countries, the respective stakeholders have taken action to assure affordability for lower income households. Many of the implemented measures have proven fruitful and adequate to ensure that all households enjoy sufficient and affordable water and sanitation sources. However, those cases must be enlarged to the whole of the EU, especially in member states where affordability issues persists⁸.

⁷ David Earhardt, Melissa Rekas, Martina Tonizzo, *Water in Bucharest. Viewpoint Number 326*, February 2011.

⁸ For an overview over worldwide measures on affordability, the interested reader might consult the exhaustive contribution by Henri Smets, *op. cit.*

| Making water affordable for all

The importance of affordability has been recognised by the European Union within the framework of the Lisbon Treaty in Protocol 9. Nevertheless, it falls short of giving a precise definition on the principle of affordability, partly due to divergent political interests among member states, but also due to the very heterogeneous landscape of water and sanitation services – both concerning production costs as well as participating bodies.

Generally accepted figures for the upper limit of affordability are a spending of around 3% to 5% of income spent for the water bill, but this number lacks serious methodological basis, especially when calibrating it to the spending on other vital resources such as electricity or heating. Thus, if electricity tends to be fairly cheap, one might still be able to afford a higher tariff for water, and vice-versa. The complexity of the subject obliges all stakeholders involved to find decentralised solutions adapted to the respective regional specificities that may change due to costs of water production, median income, population size, and quality of the infrastructure, and political orientation among others.

Low-income households may find it difficult to pay their bills. Large families may be adversely impacted by tariff structures that make water more expensive to large volume consumers. Resolving these affordability challenges implies helping specifically these water-users without compromising other necessary objectives like, for example, the need to save water. Subsidising all water-users is not recommended. In practice, two complementary types of action are implemented to overcome affordability challenges:

- Organising public services in a way that is cost-effective by keeping the overall cost as low as possible;
- Implementing specific aid mechanisms that target those water-users that have real difficulties to pay water bills. These mechanisms can be funded by other water-users, public budgets or various solidarity funds.

Studies show that governments as well as public and private operators are finding ways to improve affordability throughout the EU, often experimenting with different approaches to support households in need in a most efficient and fair way. Most of those appear to be promising, but some more years may be needed to establish a whole catalogue of best practices.

| France

In France, average spending on water is around 0.8% of average household income⁹. The average price for a cubic meter of water is 3.62 Euro¹⁰. Consumer complaints occur for 7 out of 1000 connections. Individual billing is still absent in collective buildings in parts of the country, especially in social housing, even if meter installation is required for all new buildings today. Water and sanitation are managed mostly by private companies, which directly or indirectly provide their services for around 72% of the population. Responsibility for organising services is located at municipality-level, which accounts for around 15.000 water supply entities. Meanwhile, the “*Loi sur l’eau et les milieux aquatiques*” adopted in 2006 guarantees access to drinking water for every person under affordable conditions.

Social Tariffs | Following advice from the national government¹¹, several municipalities have started to establish progressive tariff systems which split the price per cubic meter into different blocks, the lowest being the cheapest. Such a mechanism creates cross-subsidies between large and small users. While this

⁹ BIPE, Les entreprises de l’eau, *Public water supply and sanitation services in France. Economic, social and environmental data*, 2012, p. 50.

¹⁰ All cited prices include taxation, if not stated otherwise.

¹¹ Isabelle Monteils, Pierre Rathouis, *Accès à l’eau et à l’assainissement dans des conditions économiquement acceptables par tous*, Ministère de l’Environnement du Développement Durable des Transports et du Logement, Paris, July 2011; Maria Salvetti, Christophe Wittner, *Panorama des services et de leurs performances*, Observatoire des services publics d’eau et d’assainissement, Paris, 2012.

measure does certainly provide incentives to reduce water consumption, it does not necessarily make water more affordable to low-income people with large families. The “Brottes” act, published on April 15th, 2013, contains the encouragement for concerned entities to experiment with tariff systems taking into account the income of users and also the size of families. For that reason, several propositions were brought forward either by the government or by some operators. For example, the City of Dunkerque and its private operator have been implementing since 2012 a “social tariff” structure which differentiates low-income users from the others. The price of the first 75m³ per year is reduced by more than 60% for low-income households.

Fonds de solidarité logement (FSL) | In France, about 850.000 persons are entitled to receive aid distributed within the framework of the *Fonds de solidarité logement* (FSL). These are funds handled by the *Département*, a local government, to alleviate difficulties of payments of electricity, water, sanitation and telecommunications bills for low-income households. For water and sanitation, these FSL replaced in 2006 the *Fonds de Solidarité Eau* (FSE) that were created in 1999 and jointly funded by the central government and private water operators. FSL helps low-income households mainly through combining subsidies funded by the Département with cancellation of the amounts billed by the operators. Applicants to the FSL are exempted from cuts of their water supply due to unpaid bills, and also receive financial support in terms of payments for their water consumption.

“Chèque Eau” | Several programs of “Chèque Eau” were established by operating companies as an aid for low-income households. The case presented in this study covers the program “*Chèque d’Accompagnement Personnalisé*” (CAP) realised by *Eau Solidaire du SEDIF* in Ile-de-France by Veolia Eau. To be eligible for the aid, the household has to prove that its annual payments for water account for more than 3% of its income. Also, the consumer must be subscribed to water services offered by Veolia Eau Île de France. Finally, he has to render the proof that he controls his water consumption in order to prevent abusive water use and reduce overall consumption. The nation-wide average is used to fix the cap. A single- person household is subsidised up to 60m³ of annual consumption, a number rising by 30m³ for every supplementary person living in the household. After verification of the eligibility of the household, the *Centre Communautaire d’Action Sociale* (CCAS) hands out the respective CAP, which can be employed to deduct the amount from the payment of the water bill. While this measure is rather complex in terms of accompanying bureaucracy, it is efficient when it comes to allocate resources to reduce the annual water bill to 3% of income. As the household has to take action by proving its need in the first place, it could raise awareness for water consumption, especially as the aid is linked to a cap of monthly water use. Nevertheless, it is only possible for households receiving a bill, and not for those paying a monthly lump sum for charges in a building that receives a single collective bill. This program can be cumulated with the FSL as is it administered by two different public bodies that do not share information. Similar schemes are implemented in other cities like, for example, the City of Marseille.

“Chèque Ô” | Similar to the “Chèque eau” program, payments are made to households in need in form of a check whose amount can be deducted from the payment of the bill. Conceived in a less complex way, it pays out a lump sum to large families: in Dunkerque in a program offered by Suez Environnement, households exceeding five members receive a check of the amount of 12 Euros per supplementary person per year. While being easier in its conception, it has less efficiency than the *Chèque eau* program when it comes to allocate resources to low-income households most in need of support. With the FSL and the “Chèques Eau/Ô”, France has installed two programs at different levels of the political hierarchy. The latter is essentially organised (and paid for) at a local level, while the FSL regroups subsidies organised at a larger geographical scale. Both programs exist independently from each other.

| United Kingdom

In the late 80ies, England and Wales had 28 privately operating companies and 10 water and sewerage bodies in public hands. The latter were privatised in 1989 by sale of assets. Several regulators oversee the performance of these companies, the most important being the Water Services Regulation Authority (OFWAT) in charge of regulating tariffs. Since 1989, those private operators have invested around £80 billion in the infrastructure. These expenditures were funded by borrowings then recovered partly by higher charges for the consumer, partly by rising efficiency and reducing losses. At the same time, water and service quality saw a significant improvement. However, the higher bills led to some concerns about lower-income households being able to make ends meet at the end of the month.

In the UK, an analysis ordered by OFWAT shows that up to 11% of households in England and Wales spend more than 5% of their net income (after housing costs) in water and sewage bills¹². To ensure that all households can afford the minimum water supply necessary to satisfy daily needs, the UK government has implemented a set of actions. Since 2000, cutting water supply in reaction to unpaid bill has become illegal. The private operators have to offer the consumer a comprehensive payment schedule that takes into account individual specificities and allows them to establish a repayment scheme corresponding to their income situation. While this measure certainly creates moral hazard issues and forces paying users to cross-subsidise not only those who cannot pay but also non-payers who could pay, it acknowledges the very diverse reasons why households do not meet their responsibilities concerning the water bill. It also allows for operators to gather information on the topic, thus further improving best practices. However, it does not support the households to pay their bills. For this reason, different solutions are proposed both by the government and the operating companies.

WaterSure | This measure, decided by the UK national authorities, caps the water and sanitation bill for eligible households. Requirements are met if the household is in receipt of certain benefits or certain tax exemptions. Additionally, a person suffering from severe illness that justifies high water use or the reception of benefits for at least three children must be proven. Currently, bills are capped at the average bill of the respective operator, but only for metered bills. The excess amount is cross-subsidised by the other users and this is recognised in the periodic tariff reviews. Awareness of the possibility of having the water bill capped is high; the application process is straightforward and the documents required can be downloaded from the respective company website. End 2013, more than 70,000 people in England are already on this current national social tariff Watersure¹³.

Social tariffs measures | In addition to the WaterSure program, the UK government decided to further improve the situation of low-income or particularly vulnerable households. Several reasons apply: first of all, unmetered households were not taken into account in the WaterSure program. Also, the eligibility was decided via centralised institutions rather than by local operators. However, it is the latter that have better information and more direct access to consumers. Criteria for need of subsidies are thus refined, expanding assistance to those that might not have been considered by WaterSure, but who are in equal or worse need.

In response to this issue, the UK government has ordered a comprehensive report on how to engage existing problems concerning low-income households or those having high water use due to sick persons at home. As a result of this report published in 2010 by Anna Walker, a social tariff scheme was introduced¹⁴. It is subject to heavy regulation by the *Department for the Environment, Food and Rural Affairs* (DEFRA) to avoid possible discrimination and allow state-wide cohesion. Central to the guidance is that measures must

¹² See Department for Environment, Food, and Rural Affairs (DEFRA), *Affordable water: a consultation on the Government's proposals following the Walker Review of Charging*, London, 2011.

¹³ Water UK, Press release dated December 2, 2013.

¹⁴ Anna Walker, *The Independent Review of Charging for Household Water and Sewerage Services*, DEFRA, London, 2009. See also DEFRA, *op. cit.*, as reaction from the Government to the proposals by the Walker Report. And DEFRA, *Company Social Tariffs: Guidance to water and sewerage undertakers and the Water Services Regulation Authority under Section 44 of the Flood and Water Management Act 2010*, London, 2012.

clearly alleviate the situation for those customers most likely to experience affordability problems.

The final implementation and structure of the social tariff is left to the operating companies, thus assuring sufficient flexibility in order to adjust to local specificities such as costs of providing the resource, median income and size of households and the percentage of meters installed, among others. The companies can choose from a wide range of concessions from percentage discounts, to free or discounted block of water, to caps. The latter have, as within the WaterSure program, the inherent risk of not promoting more efficient use as charges do not apply after a certain amount of water has been used for the given time period. Also, consumers and organisation representing consumers should be consulted prior to the implementation of social tariff measures. This includes the opinion of those who are paying for the cross-subsidies.

While this freedom and lack of enforcement might let some companies consider a half-hearted implementation (especially if resistance among households paying the subsidies is strong), the eventual comparison process with competition will not allow them to refrain from taking any measures at all. Also, the experiences made with different approaches could become extremely valuable when it comes to identification of households in most dire need and appropriate programs to support them.

| Spain

In Spain, approximately half of the population is directly or indirectly served by private companies. Water tariffs tended to be rather cheap (around 1.4 Euro per cubic meter in 2009)¹⁵, a tariff that was among the lowest in the EU despite the hydraulic stress in several regions of the country. The situation, however, has changed since tariffs rose shortly in the aftermath of the economic crisis hitting Spain. Eventually, the rapid changes, even if only made to cover production costs, hit households. In order to alleviate the precarious position a great number of households are in, several programs were initiated throughout the country. The case examined in this study concentrates on measures undertaken by *Aguas de Barcelona*, in charge of providing water supply in the greater Barcelona area.

Tariffs including subsidies to large families | The crisis has been a hit for the entire country, but particularly for large families. High unemployment rates among the 16-25-year-old has forced large numbers of them to move back in with their parents, obliging the latter to provide supplementary funds to pay for housing bills and other essentials for living. Unfortunately, the progressive pricing system in place disadvantages large families as prices per cubic meter raise according to the monthly amount of water used. The municipality and its local operator have installed a pricing system that takes into account the number of persons living in the metered entity in reaction to this development. In households with more than 3 inhabitants, the lowest price which normally applies to the first 6 m³ consumed every month by the household is applied to 2 additional cubic meters per additional person. Similar expansion applies to the other consumption blocks of the progressive pricing system (with 3 additional cubic meters per person for the second block). These subsidies to large families are funded by the other users. This program is also open for person with severe handicaps. Similar measures have been realised in a variety of municipalities throughout Spain, without regard of public or private ownership of the operator. Most programs focus on price reductions per cubic meter, while sometimes it only applies to some blocks of the progressive pricing system.

Subsidies to vulnerable users through social tariffs | Unemployed people and retirees with low pensions can apply for "social" tariffs. On the part of their bill which relates to the water service provided by Aguas de Barcelona, this means a 25% reduction of the price of the first 6 m³ consumed every month. This is a cross-subsidy funded by the other users. On the part of their bill that relates to the fee to be paid to the Region, there is also a price reduction. This second subsidy is funded by the Regional government.

¹⁵ According to the *Asociación Española de Abastecimientos de Agua y Saneamiento* (AEAS).

Fondo de Solidaridad | In addition to the tariff measures, the local operator, Aguas de Barcelona, has funded a program, the *Fondo de Solidaridad de la Fundación Agbar*, targeting the lowest-income households with the greatest difficulties to pay the water bill. It is co-operated with the social services of the Barcelona metropolitan area.

Vulnerable users of the services of *Aguas de Barcelona* can apply at the company for a reduction of the part of their bills that corresponds to the service delivered by this company. Depending on the result of the evaluation by social services, up to 4 months of consumption of a family of 3 persons using 100 litres/person/day can be deducted every year from their water bills.

| Poland

A UN report mentions one example of social tariffs that have been voluntarily introduced by one Polish water utility, Aqua S.A.: "AQUA SA is one of about 800 water and wastewater operators in Poland. In the early 2000s, AQUA SA, which supplies water to 300,000 people, voluntarily introduced a reduced tariff for low income households. The eligibility criteria chosen were the same as those applied by municipal services to provide other types of social support, thus keeping administrative costs low. Currently, eligible households pay EUR 0.01 for the service of 2 m³ of water delivered and wastewater collected, while consumption above that threshold is charged at the regular price of about EUR 1/m³ of water and EUR 1/m³ of wastewater"¹⁶.

| European Union

The above examples show a variety of tools that are used by public or private operators to make drinking water more affordable for economically-disadvantaged users. These are "targeted" mechanisms that are designed to help those for whom water bills may be unaffordable.

Besides, various "untargeted" tariff measures are experienced across Europe to make drinking water bills more affordable for all domestic users independently from their economic capacity. Subsidies funded by public budgets (i.e. the taxpayers) and reduced VAT rates benefit all water users. Increasing blocks tariffs and amounts of bills that are proportional to water consumption without including any fixed fee benefit users with a low consumption (they are funded by large consumers). Many EU countries also implement "targeted" non-water subsidies that help low-income water-users without being linked to the amounts of their water bills.

The French Water Academy has investigated these experiences across Europe¹⁷. Their findings are presented in a UNECE-WHO report¹⁸. The table below updates the table published in this report and re-arranges it according to the three above categories of measures.

¹⁶ *No one left behind, good practices to ensure equitable access to water and sanitation in the pan-European region*, UNECE-WHO, 2009.

¹⁷ Henri Smets, *op. cit.*

¹⁸ UNECE-WHO, *op. cit.*

Measures to make drinking water more affordable for domestic users in the EU

Categories	Mechanisms targeting low-income users			Mechanisms benefiting all users		Non-water mechanisms	
Types of Measures	Progressive tariff (a)	"Social tariff" (b)	Targeted assistance (c)	Large subsidies (d)	Reduced VAT (e)	No fixed fee (f)	Income support (g)
Austria		Yes				Yes	Yes
Czech Republic				Yes	Yes	Yes	Yes
Denmark							Yes
Finland			Y				Yes
France	Yes/No*	Yes/No*	Yes		Yes		Yes
Germany					Yes		Yes
Greece	Yes	Yes		Yes			Yes
Hungary		Yes	Yes	Yes		Yes	Yes
Norway							Yes
Poland		Yes/No*		Yes	Yes	Yes	Yes
Portugal	Yes	Yes		Yes	Yes		Yes
Slovakia				Yes			Yes
Spain	Yes	Yes		Yes	Yes		Yes
Sweden							Yes
Switzerland				Yes	Yes		Yes
Turkey	Yes			Yes			Yes
United Kingdom**		Yes	Yes		Yes		Yes

(a) Progressive water tariff in general use

(b) "Social" water tariff (reduced price for certain groups of users)

(c) Targeted assistance, i.e., grants or forgiveness of arrears for water provided to poor people

(d) Subsidies for water supply and/or sanitation over 30% of service cost (including investment)

(e) Water billed with rate of Value added tax below normal VAT rate

(f) No fixed fee, only fee proportional to consumption

(g) Income support for poor people (unlinked to amounts of water bills)

* Used but only in a few territories | ** England and Wales only

Sources | Data excerpted from Table 6.1 of "No one left behind", UNECE-WHO, 2009 presenting by French Water Academy data and updated.

| Empowering the citizen

Installing aid programs for the most vulnerable households can prove adequate to alleviate short-term difficulties of payment. In order to find long-term solutions, it is important to involve the consumer in the decision-making process. Only taking into account the particular situation allows the design of support programs adapted to the individual needs of the respective household. Information flows have to be guaranteed, so that operating entities and public bodies can react. Eventually, all aid programs should be fashioned in a way that is transparent to all users in order that they have a clear understanding of both how they benefit from subsidies and where the money for these subsidies comes from.

While the larger economic challenges are not part of this paper, consumer groups can actually help overcome difficulties. A first step is to raise awareness. The most promising way to make the water bill more affordable is through more efficient use. This point does not only concern waste of the water resource, but also the spread of information of adapted measures to reduce consumption, such as shower heads. Eventually, not only households in difficulty of payment should be targeted by such programs, but they should be designed to enable a more efficient way of using water for all consumers. The example of the low volume shower head generates disproportionately large savings, because it reduces hot water use and therefore saves more for a household in energy costs than the volume of water saved.

Consumer groups should also play the intermediary role between households and operators when it comes to aid programs. Sometimes the respective consumer that would be eligible for an aid program does not have the information of its existence, or does not know how to apply. Also, they might be reluctant to address operators directly, often because they are indebted to the entity and avoid contact for that reason. Often, they lack trust that might have been justified by some bad experience earlier. Eventually, this creates a downward spiral leading to a further pile up of unpaid bills and further disconnection from the water and sanitation provider. Representatives of civil society could help breaking this circle by entering in direct contact with households that are in difficulty of payment and transmitting information on possible solutions. Information can also flow bottom-up to the operators and other stakeholders allowing them to improve existing aid programs.

While some countries have undertaken steps in this direction, implementation varies, often according to the local cultural heritage. In the UK, the Consumer Council for Water (CCWater) plays an eminent role, not only by providing information and bureaucratic support to the citizen, but also when it comes to the design of aid programs adapted to local specificities. A comprehensive scheme of measures is available on how to reduce unnecessary overuse of water, thus helping to reduce the monthly bill. Also, the CCWater provides assistance when it comes to disputes with water operators or in case of difficulties of payment. This assistance is solely consulting however, and not monetary.

At the same time, consumers are encouraged to tell the CCWater of the issue they consider being the most pressuring. Based on this information, reports are published on how to tackle these challenges. Operators, on the other hand, are obliged to consult with the CCWater before submitting their propositions on changes on tariffs to the OFWAT. The CCWater thus serves as an agent channelling information both top-down from the companies to the consumer, as well as bottom-up from the consumer to the operator, but also the government.

Before submitting to Ofwat, the economic regulator, their proposals for the 2015-2020 period, English water companies have carried out their biggest ever consultations with their customers while developing their plans. And for this price review, independent consumer representative groups have had a formal role as Customer Challenge Groups, scrutinising and challenging every company throughout the process¹⁹.

In France by comparison, mostly social workers employed by local governments provide assistance to

¹⁹ Monteils, Rathouis, *op. cit.* and Salvetti, Wittner, *op. cit.*

households in difficulty of payment. Both approaches prove to have certain advantages. While the latter offers help on the whole range of payment problems that may arise (electricity, heating, health care and so on), their solutions may not be adapted to such a specific issue such as water and sanitation. Also they cannot assume the role as intermediary between operators and consumers when designing aid programs as good as those that a specialised consumer representation group might. Also, they cannot replace consumer groups in the democratic decision-making processes, that have to take into account the opinion of the whole range of the consumers which they represent.

Suez Environnement has reacted to this lack of public participation by its “Contract for the health of water”. While also containing affordability measures, it concentrates its efforts on public participation both in monitoring drinking water and sanitation services as well as decision making. Local contracts can be operated by local subsidiaries with strong cooperation with the municipalities and consumer groups. These measures have already been implemented in several French local utilities like the “Eaux de Normandie”, where representatives of civil society have been given a place on the board, or the “Orléanaise des Eaux”, with strong participation of the local government.

This point eventually has a strong ideological component of whether the state should decide for all citizens the installation of cross-subsidies, or if this question should be left to those paying them at the end. Leaving the choice to consumers would augment overall acceptance for such measures and respect democratic principles. Surveys on the topic show that consumers are willing to accept a higher water bill to certain extent in order to provide assistance for those in need. Those voices should be taken into account.

| Conclusion

The European Union should recognise safe drinking water as a human right. By doing so, it would attribute to water supply, a vital service, the importance it deserves. Nevertheless, the status of a human right is nothing but an empty shell if the required standards of delivery are not met. Most citizens of the EU certainly enjoy continuous access to safe drinking water well within their budget constraints. But as a human right applies to everybody, nobody can be excluded, even if this only represents a very small fraction of the society as a whole.

In this light, the current, often ideological, debate on whether public and private operators should be in charge seriously imperils the opportunity to achieve a true right to water for all by the EU. Affordability issues are best tackled on a local level, allowing for trial-and-error as well as the identification of best practices. It also takes into account local specificities. Finally, cooperation and exchanges between consumer groups and operators at this level are the most promising concerning the amelioration of services provided.

Clearly, the most common challenge in the EU with respect to the right to safe drinking water concerns the affordability of water bills. Low-income households may find it difficult to pay their bills. Large families may be adversely impacted by tariff structures that make water more expensive to large consumers. The economic crisis has contributed to the existing difficulties that some households face to pay their bills. In the long run, the situation is not likely to improve as efforts on pollution removal are still increasing and climate change will augment hydraulic stress in several member countries. Also, a great number of municipalities face the challenge of ageing infrastructure that will need replacement – in times when public budgets already are very tight. These factors will have a direct impact on cost of water services, and as a consequence on their prices.

Resolving these affordability challenges implies cost-effective public services to keep the overall cost as low as possible and specific aid mechanisms that target those water-users that have real difficulties to pay water bills. In Europe, public and private water operators have shown their capacity to propose and implement

intelligent and locally-adapted solutions to these affordability challenges. Aid mechanisms are mostly designed and decided by governments, and then implemented by operators. However, this note also identifies several cases initiated by private operators who have been able to propose subsidy mechanisms, including some funded by themselves. Different approaches to tackle affordability-related difficulties of households are being implemented: direct payments to households in financial need, cross-subsidies for large or low-income families and measures to nudge consumers towards a more responsible use, to mention only a few.

At the same time, decentralisation takes place, especially when it comes to closing the gap between the consumer and the operator. Information flows more freely, allowing the companies to better adapt measures to the actual needs, while consumers get a better insight into the mechanisms of the drinking water production and sanitation services.

To tackle this multitude of existing and up-coming challenges about affordability and public participation, the only viable approach is to include all stakeholders: governments and municipalities, regulatory bodies, social workers, public and private operators, their employees, and representatives of civil society such as consumer groups and NGOs. This is the direction the public debate should take – especially when it comes to access to water for all, inclusion not opposition is the only way to go.

