

AFFORDABILITY IN EUROPEAN WATER SYSTEMS.

Report completed by WAREG

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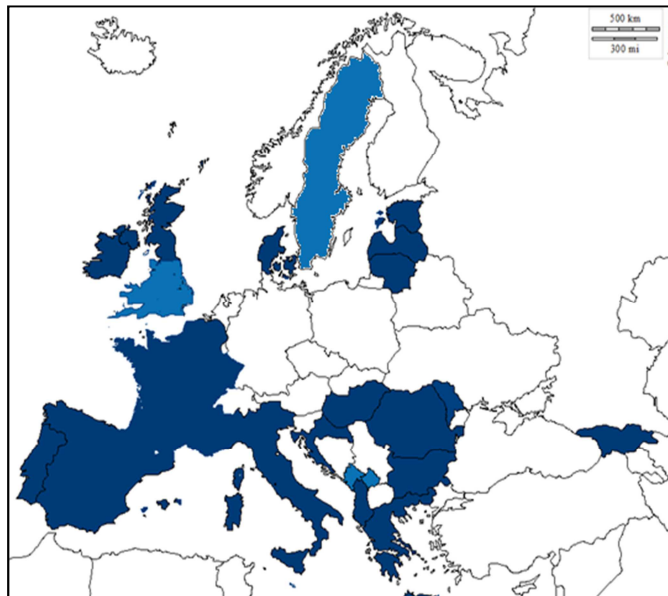
* This paper is based on the responses received by 17 WAREG Members, namely the following ones: Albania (ERRU), Azores (ERSARA), Flanders (VMM), Bulgaria (EWRC), Croatia (VODA), Denmark (KSST), Estonia (ECA), France (MEDDE), Greece (SSW), Hungary (HEA), Ireland (CER), Italy (AEEGSI), Latvia (PUC), Lithuania (NCC), Malta (REWS), Portugal (ERSAR), Spain (MAGRAMA).

ABOUT WAREG

WAREG is a network of European Water Regulators, established in April 2014. It is a Membership organisation with the following objectives:

- to exchange common practices and information, engage in analysis of existing water sector regulatory models and analysis of the performance of water utilities;
- to organise specialised training, technical assistance and exchange of know-how;
- to promote best-practice and stable regulation of the water sector at European level for water and wastewater services;
- to promote cooperation across Members in analysing the sustainability of water and wastewater services, infrastructure investment, service provision and consumer protection;
- to engage with relevant national, European and international organisations with particular focus on European issues in the field of water services.

At present, WAREG has 22 regulatory authorities with Member status¹, and 4 regulatory authorities holding Observer status. Any entity or legal body, which is responsible for the regulation of water and/or wastewater services within a country in Europe, may apply to join WAREG.



¹ WAREG Members are:

AEEGSI – Italy, Regulatory Authority for Electricity Gas and Water; **ANRE – Moldova**, National Agency for Energy Regulation; **ANRSC – Romania**, Romanian Authority for Public Services; **CER – Ireland**, Commission for Energy Regulation; **Council for Water Services – Croatia**; **ECA – Estonia**, Estonian Competition Authority; **ERRU – Albania**, Water Regulatory Authority; **ERSAR – Portugal**, Water and Waste Services Regulation Authority; **ERSARA – Portugal**, Water and Waste Services Regulation Authority of Azores; **EWRC – Bulgaria**, State Energy and Water Regulatory Commission; **GNERC – Georgia**, Georgian National Energy and Water Supply Regulatory Commission; **HEA – Hungary**, Hungarian Energy and Public Utility Regulatory Authority; **KSST – Denmark**, Danish Competition and Consumer Authority; **MAGRAMA – Spain**, Ministry of Agriculture, Food and Environment ; **MEDDE – France**, Ministry of Ecology, sustainable development and energy; **NCC – Lithuania**, National Commission for Energy Control and Prices; **NIAUR – Northern Ireland**, Northern Ireland Utility Regulation Authority; **PUC – Latvia**, Public Utilities Commission ; **REWS – Malta**, Regulator for Energy and Water Services; **SSW – Greece**, Special Secretariat for Water; **VMM – Belgium/Flanders**, Flemish Water Regulator; **WICS – Scotland**, Water Industry Commission for Scotland.

Observers in WAREG Assemblies are: Montenegro Ministry of Sustainable Development, the Water Services Regulation Authority (OFWAT), Swedish Water and Wastewater Association (SWWA), Kosovo Water and Wastewater Regulatory Office (WWRO).

INTRODUCTION

The affordability of water and sanitation services is high on the agenda of international organisations and European institutions.

The United Nations, has explicitly recognised the human right to water and sanitation² and recommends that expenditure on household water bills should not exceed 3% of household income³. Ensuring the availability and sustainable management of water and sanitation for all features as one of the United Nations Sustainable Development Goals for 2030⁴.

At European level, a definition of “affordability” has been attempted in past communications of **the European Commission (EC), such as for instance “the relative importance of water service costs in users' disposable income, either on average or for low-income users only”⁵**. The EC has been remarking among other things that **“social concerns should not be the main objective of water pricing policies but rather dealt with through accompanying social measures”⁶**. In the EC perspective affordability seems to be related to price-setting policy or regulation established at national level by EU Member States, although some general principles could be commonly applied also at EU level⁷.

The relevance of affordable water services has also been raised in recent public debates. For instance, in 2013 a legislative initiative was initiated by EU citizens (**ECI “Right2Water”⁸**). It emphasised the responsibility of Member States in allocating resources to guarantee the **principles of participation and non-discrimination** in delivering water and sanitation services. As a follow-up, the **European Parliament**

² The United Nations General Assembly explicitly acknowledged that clean drinking water and sanitation are essential to the realisation of all human rights. See www.un.org/waterforlifedecade/human_right_to_water.shtml.

³ UNDP, 2006, Human Development Report: <http://hdr.undp.org/sites/default/files/reports/267/hdr06-complete.pdf>. See also UN Resolution 64/292 adopted by the UN General Assembly on 28 July 2010.

⁴ The UN Sustainable Development Goals are part of the UN Agenda for sustainable Development by 2030: <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>. Goal number six specifically puts water and sanitation at the “very core of sustainable development, critical to the survival of people and the planet. Goal 6 not only addresses the issues relating to drinking water, sanitation and hygiene, but also the quality and sustainability of water resources worldwide”.

⁵ COM(2000)477 Final, 26 July 2000, “Communication from the Commission to the Council, the European Parliament and the Economic and Social Committee. Pricing policies for enhancing the sustainability of water resources”.

⁶ COM(2000)477 Final, 26 July 2000, *ibidem*.

⁷ According to the EC Communication COM(2014) final, “*the EU has no role in the setting of water prices, which are determined at national level. EU water-related environmental legislation does, however, establish some basic principles for water pricing policies in the Member States. The Water Framework Directive requires Member States to ensure that the price charged to water consumers reflects the true costs of water use. This encourages the sustainable use of limited water resources. EU water policy is based on the principle that affordability of water services is critical. National authorities are competent for taking concrete support measures safeguarding disadvantaged people and tackling water-poverty issues (e.g. through support for low-income households or through the establishment of public service obligations).*”

⁸ The European Citizens' Initiative, introduced by the Lisbon Treaty to encourage a greater democratic involvement of citizens in European affairs, allows one million citizens of the European Union (EU), coming from at least seven Member States, to call on the European Commission to propose legislation on matters of EU competence. “Right2Water” is the first European Citizens' Initiative to have met the requirements for being received by the Commission. It was officially submitted to the Commission by its organisers on 20 December 2013, after having received the support of more than 1.6 million citizens. The Commission received the organisers on 17 February 2014 and, on the same day, the organisers presented this initiative at a public hearing in the European Parliament.

(EP) recently issued a non-binding resolution⁹ that classified water as a ‘common good’ and stated that water and sanitation services are services of general interest and that water for personal and domestic uses should be “*of good quality, safe, physically accessible, affordable, sufficient and acceptable*”. The same EP resolution called on the European Commission (EC) “*to come forward with legislative proposals, and, if appropriate, a revision of the Water Framework Directive, that would recognise universal access and the human right to water*”. It also requested the EC “*to collaborate with the Member States and regional and local authorities to conduct a study on water poverty issues, including issues of access and affordability*”. In doing so, the EP Resolution “*stresses the importance of national regulatory authorities in ensuring fair and open competition between service providers, facilitating faster implementation of innovative solutions and technical progress, promoting efficiency and quality of water services, and ensuring the protection of consumers’ interests*”.

The report elaborated by WAREG provides a description of some approaches used in 17 WAREG Members’ countries¹⁰ to ensure the affordability of water and sewerage charges. It also provides a general overview of the governance frameworks and tools used in those countries. The main objective of this paper is to outline existing practices and to identify possible common patterns in regulatory mechanisms to ensure affordability of water services. This paper does not intend to give any indication of best practices.

A survey was carried out in WAREG between March and November 2016, focusing on the following five general questions:

1. How is affordability perceived and translated into “measures”?
2. Who decides on issues relating to affordability?
3. Who is eligible to receive affordability measures or social tariffs?
4. What tools are in place to ensure that water and sewerage charges are affordable?
5. Who pays for affordability measures implemented?

Seventeen replies were received in total.

Tariff harmonization or creating increased levels of efficiency can help to ensure the affordability of water and sewerage services. These tools can reduce and/or redistribute the costs of water and sewerage services leading to a possible reduction in final prices for all consumers or specific categories of customers. Although some answers to the questions concerning affordability contain information on these two aspects, namely tariff harmonization and efficiency, these specific regulatory instruments will not be analyzed in this paper.

In respondents’ countries water is considered an essential good that should be provided to all citizens according to equitability criteria as established by formal rules (national, regional or local rules) on “affordability”. These rules may be present in internal policies, internal economic regulation or both, depending on the governance frameworks in each country.

⁹ European Parliament resolution P8_TA(2015)0294, of 8 September 2015, on the follow-up to the European Citizens’ Initiative Right2Water (2014/2239(INI)).

¹⁰ The following 17 Members replied: Albania (ERRU), Azores (ERSARA), Flanders (VMM), Bulgaria (EWRC), Croatia (Council for Water Services), Denmark (KSST), Estonia (ECA), France (MEDDE), Greece (SSW), Hungary (HEA), Ireland (CER), Italy (AEEGSI), Latvia (PUC), Lithuania (NCC), Malta (REWS), Portugal (ERSAR), Spain (MAGRAMA).

CHAPTER 1 PERCEPTION OF AFFORDABILITY IN WAREG

Introduction

WAREG's survey investigated how the concept of affordability at national level is interpreted by each respondent, more specifically through the following questions:

- Does the concept of affordability relate to actual water services bills for households' customers?
- Does the concept of affordability relate to public service institutions (ex. schools, hospitals, prisons, etc.)?
- Does the concept of affordability relate to the physical connection to the drinking water supply infrastructure?
- Other?

From the replies received, the below observations could be drawn. These are summarized in Table 1.

Analysis of responses

Respondents to the questionnaire show that the concept of "affordability" can be interpreted in two possible ways, namely:

1. **As the right for all households to have physical access** to safe drinking water infrastructures (accessibility concept). In WAREG respondents' countries physical accessibility to safe drinking water for all is a concern but it is not considered a major problem. Existing infrastructures seem to be adequate and reach almost all domestic customers in respondents' countries. Respondents view the concept of affordability from an economic perspective, as the "ability to pay".
2. **As the ability of all households or of specific groups to pay** (economic concept). The concept of affordability is in such instances considered from an economic perspective in WAREG respondents' countries as the "ability to pay". This has been adopted as the main focus of this report. From an economic perspective, the concept of affordability has been interpreted in one of the following two ways:
 - a) As the possibility for the entire population to pay a fair price for water and wastewater services, without hampering their access to other essential services (macro-level definition);
 - b) As the possibility for the poorest segments (lower income) of the population to pay a reasonable price for water and wastewater services (micro-level definition).

The two possible interpretations of the economic concept of affordability were examined separately in this paper. Economic affordability has been interpreted as a set of norms imposing a constraint for the market as a whole, typically on price increases (macro-level definition), or by establishing the right to receive some kind of subsidy for a specific section of the population (micro-level).

From an economic perspective, the inability of consumers to pay for water and sanitation services can generate problems of bad debt to companies. In most Respondents' countries, the water supply to consumers can be partially or completely cut-off in the event of non-payment, unless such consumers meet specific eligibility criteria which exempt them from payment.

Sometimes, water is considered as "public good" – a "gift" from nature whereby consumption by one person will not diminish the potential of another person to consume it (non-rivalry in consumption), and

where access cannot be restricted (non-excludability). It is generally accepted that everyone has a right to water, and the government has the ultimate responsibility to ensure that every citizen receives the basic quantity and quality of water, to satisfy human needs.

However, ensuring the universal right to water does not mean guarantee unlimited consumption especially when ecological or economic constraints prevail. In fact, where water is provided by an infrastructure, access is characterised by rivalry in consumption (consumption by one person reduces availability for others) and excludability (access to the resource can be restricted unless it is paid for). In this case, water is similar to a “private good” and hence the cost to deliver a service to final consumers should be reflected in water pricing in order to promote efficient levels of consumption and infrastructure investment. When water is abstracted as a natural resource, even from a private well, it is an input for piped water supply, it should be treated as a private good and should be paid for. Somewhere between the definitions of “public good” and “private good” stands the notion of water as a “common good”, characterised by non-excludability and non-rivalry of water resources until they become scarce and the benefits that they bring to a given community start to decrease. In-situ functions of water resources as a part of ecosystems can be considered as a common good. In this context, water must be governed within a framework of shared responsibility.

In 9 cases the concept of affordability is viewed at the same time as both ensuring universal ability to pay (for the entire population) and ensuring the ability to pay for specific categories of customers.

Table 1. Concept of affordability.

Country / Region	Ability to pay of entire population	Ability to pay of specific groups of population
Albania	✓	✓
Azores	✓	
Belgium/Flanders	✓	✓
Bulgaria	✓	
Croatia	✓	
Denmark	✓	
Estonia	✓	✓
France	✓	
Greece	✓	✓
Hungary	✓	
Ireland	✓	
Italy	✓	✓
Latvia ¹¹	✓	✓
Lithuania	✓	✓
Malta	✓	✓
Portugal	✓	✓
Spain		✓
Yes	16	10
No	1	7
TOTAL	17	17

¹¹ In Latvia both concepts are possible. Tariffs have to be economically justified to ensure that population pay fair price for WSS services and municipalities are obliged to ensure social assistance (social care) to residents.

CHAPTER 2

THE LEGISLATIVE FRAMEWORK FOR ENSURING AFFORDABILITY OF WATER SERVICES

Introduction

The WAREG Task Force survey investigated the legislative framework existing in respondents' countries on affordability of water services. The following questions were included in the questionnaire:

- a) Is the concept of affordability (for water services?) enshrined in law?
- b) If yes in a), in what kind of legal provisions? (Please, indicate the main ones in place)
 - National laws or bylaws;
 - Regional laws or bylaws;
 - Local laws or bylaws;
 - Other (please, specify).
- c) If no in a), are affordability measures applied voluntarily? Please, indicate by whom (regional and/or local levels, companies, other, etc.).
- d) What competences (power) has the Regulator regarding affordability? If any, please explain the role / responsibility of the regulator (advising, monitoring, tariff structure, tariff setting, etc.).

From the responses received, the following observations have been drawn and are summarized in Tables 2 and 3.

Analysis of responses

From a legislative point of view, a distinction can be observed in WAREG between those countries having legislative instruments on affordability that are referred specifically to drinking water supply (14 cases) and the other countries where the internal rules/norms are more general and these address other essential services, e.g. electricity, gas, transport, etc.

General rules on affordability of local public services include forms of social support to households provided by welfare policies. These are usually established by a national law and applied at regional and local levels for several public utility services (including water and wastewater, but also other public services). These general (non-water-specific) rules on affordability include for instance specific forms of social bonus, and they can be viewed as affordability measures.

It is interesting to observe that in almost all WAREG countries water-specific norms on affordability exist. These are different in nature and are provided at different governance levels in each country.

Table 2. Existence of norms on affordability.

Country / Region	Non-water-specific norms ¹²	Water-specific norms
Albania	✓	✓
Azores	✓	✓
Belgium/Flanders	✓	✓
Bulgaria		✓
Croatia	✓	✓
Denmark		✓
Estonia	✓	✓
France		✓
Greece		✓
Hungary	✓	
Ireland ¹³	✓	
Italy	✓	✓
Latvia ¹⁴	✓	
Lithuania	✓	✓
Malta	✓	✓
Portugal		✓
Spain		✓
Yes	11	14
No	6	3
TOTAL	17	17

Water-specific norms on “affordability” are established directly and/or provided by means of national and/or regional primary legislation (laws, bylaws, etc.) in all respondents’ countries (17 cases), typically by establishing principles of equitable access to drinking water. In some cases, the national and/or regional law can also define specific aspects of social affordability, for instance by introducing specific income thresholds (e.g. Albania, Bulgaria, Portugal, Portugal Azores).

It is important to note that in many cases the general norms to ensure affordability are taken at the social security level and not at the regulatory level. This therefore requires the financial transfer from the social security budget to support households’ expenditure (including expenditure on water services).

The implementation of affordability principles is usually delegated by primary legislation to one or more of the following three levels of governance:

- a. National level (10 cases);
- b. Regional level (3 cases);

¹² Non-water specific norms refer to specific measures dedicated to different public services, referring not exclusively to water and wastewater, e.g. a bonus for disabled people.

¹³ In Ireland, there are no specific affordability measures in place for water and wastewater services. For domestic customers, water charges are currently suspended under legislation until 31 March 2017. Policy-makers will decide in the coming months on whether domestic charges will return from 1 April 2017, remain suspended or if a new charging structure will be implemented. An independent commission recently provided a report to the Irish government outlining its recommendations on the issue of domestic charges for the period after 31 March 2017. The government will consider these recommendations before reaching a decision in 2017. Ireland’s participation in this WAREG paper on affordability should be considered in this context.

¹⁴ In Latvia the regulatory body is not responsible for implementation of the principle of affordability. For implementation of social policy in Latvia only local municipalities are responsible. Local government laws describe the general obligation for municipalities and provide that local municipalities are obliged to ensure social assistance to their residents, with reference to all public services, not specifically to water services.

c. Local level (9 cases).

Ten regulatory authorities have a direct (2 cases) or indirect role (8 cases) in tackling affordability problems (i.e. through tariff regulation, monitoring, etc.), although typically without binding powers. Interestingly, in some cases the competences on affordability delegated by law to Regulators are usually considered as a form of consumers' protection (e.g. Portugal). More specifically, delegated powers of the regulators on affordability can fall into one of the following two categories:

- issuing guidelines and opinions on the water tariff methodology that is implemented at national level (e.g. Albania), regionally (e.g. Belgium/Flanders) or locally (e.g. Portugal);
- setting the tariff methodology by taking into account principles of fairness and equitability of prices (e.g. Belgium/Flanders, Italy, Malta);

Additionally, where Regulators have delegated competences two alternative situations are possible:

- where discretionary powers exist (2 cases), these usually allow the Regulator to independently define specific mechanisms, as well as to modify them and to ensure their implementation;
- where such discretionary powers are absent (8 cases), the regulator has advisory and monitoring functions.

Voluntary initiatives by water and sewerage service providers to support vulnerable customers have also been reported and observed (6 cases).

Table 3. Level of norms (general and water-specific) on affordability and role of the regulators.

Country/ Region	National Level	Regional Level	Local Level	Voluntary initiatives of companies ¹⁵	Regulator's role / competence		
					Delegated competence + discretionality	Delegated competence (no discretionality)	None
Albania	✓				✓		
Azores			✓			✓	
Belgium/Flanders		✓				✓	
Bulgaria	✓					✓	
Croatia	✓					✓	
Denmark			✓	✓			✓
Estonia	✓						✓
France	✓		✓	✓			
Greece	✓		✓	✓		✓	
Hungary		✓	✓				✓
Ireland							✓
Italy	✓		✓		✓		
Latvia ¹⁶	✓						✓
Lithuania	✓		✓			✓	
Malta	✓			✓		✓	
Portugal			✓	✓		✓	
Spain		✓	✓	✓			✓
Yes	10	3	9	6	2	8	6
No	7	14	8	11	15	9	11
TOTAL	17	17	17	17	17	17	17

¹⁵ Voluntary initiatives of companies are mainly specific funds created by companies on a voluntary basis, to cover costs for affordability mechanisms elaborated for specific categories of customers

¹⁶ In Latvia, the regulatory body is not responsible for implementation of the principle of affordability and detailed requirements are not listed in the law. For implementation of social policy in Latvia the local government is responsible. According to the national Law on Local governments, municipalities are obliged to ensure social assistance (social care) to residents.

CHAPTER 3

ELIGIBILITY CRITERIA

Introduction

The WAREG survey explored existing criteria used in WAREG respondents' countries to identify eligible customers for water-specific affordability measures. The following questions were included in the questionnaire:

- a) Is there a definition to identify specific groups entitled to affordability measures, in your country?
- b) If access to affordability measures is possible, on the basis of which ones of the following conditions are affordability measures granted?
 - Household income. Please describe shortly whether a threshold for accessing affordability measures is established, in absolute terms; (e.g. maximum amount of yearly income) or relative terms (e.g. lowest decile of national / regional average income, etc.).
 - Other specific requirements (health, economic conditions, age, etc.).
- c) What segments of the population are eligible for affordability measures in your country, today?
 - All low-income customers;
 - Some low-income customers (Please specify who);
 - Specifically defined vulnerable customers. (Please specify who -e.g. welfare beneficiaries);
 - Large families;
 - Students;
 - Elderly;
 - Persons with physical disabilities;
 - Customers on the verge of social exclusion (Please, specify how the concept 'social exclusion' is defined).

From the responses received, the following observations can be drawn and are summarized in Tables 4, 5a and 5b.

The WAREG survey also investigated whether any national institutions at local, regional or central level monitor the composition of specific eligible groups in order to avoid possible abuses (Table 6). The WAREG Task Force finally investigated the possibility to cut-off drinking water supply and the possible existence of mitigation measures for specific categories of customers who are unable to pay (Table 7).

Analysis of responses

Water-specific norms on affordability typically define the necessary conditions (eligibility criteria) to access affordability mechanisms in place (14 cases). Norms on eligibility criteria are found in one or more of the following levels of governance:

- National level (Croatia, Estonia, Italy, Lithuania, Malta, Portugal) including policy and regulation, by means of laws or bylaws that identify specific segments of the population on the entire national territory entitled with the right to access affordability mechanisms;
- Regional level (Azores, Belgium/Flanders, Spain);
- Local level (Bulgaria, France, Greece, Italy, Latvia, Lithuania, Portugal, Spain).

Table 4. Norms on eligibility for water-specific affordability mechanisms.

Country / Region	Do some norms exist to identify specific groups of customers entitled to affordability measures?	Level of existing norms
Albania	no	
Azores	yes	Regional
Belgium/Flanders	yes	Regional
Bulgaria	yes	Local
Croatia	yes	National
Denmark	yes	Local
Estonia	yes	National
France	yes	National/Local
Greece	yes	Local
Hungary	no	
Ireland	no	
Italy	yes	National/Local
Latvia ¹⁷	yes	Local
Lithuania	yes	National/Local
Malta	yes	National
Portugal	yes	National/Local
Spain	yes	Regional/Local
Yes	14	
No	3	
TOTAL	17	

As may be expected, eligibility criteria vary among countries although most define eligibility against a common parameter: household income (13 cases). Household income may be expressed as a fixed sum (e.g. Azores, France, Greece, Italy, Malta, Spain) or as a percentage of the household expenditure in water services over its total income (e.g. Albania, Bulgaria, Estonia, Lithuania, Portugal).

¹⁷ Under the responsibility of local municipalities.

Table 5a. Income-related eligibility criteria for water-specific affordability mechanisms.

Country/ Region	Income-related	Other specific requirements (health, economic conditions, age, etc.)
Albania	✓	
Azores	✓	
Belgium/Flanders ¹⁸	✓	✓
Bulgaria	✓	
Croatia	✓	
Denmark		
Estonia	✓	
France ¹⁹	✓	✓
Greece	✓	✓
Hungary		
Ireland		
Italy	✓	✓
Latvia		
Lithuania	✓	✓
Malta	✓	✓
Portugal ²⁰	✓	✓
Spain	✓	✓
Yes	13	8
No	4	9
TOTAL	17	17

A breakdown of Table 5a indicates that other eligibility criteria are also taken into account in 9 cases. This is outlined in the following Table 5b.

¹⁸ In Belgium/Flanders specific groups are defined, i.e. elderly and persons with disability, but all of them belonging to the 'low income' portion of the population (e.g. elderly with a high pension are not eligible).

¹⁹ The replies received for France are only related to the experiment for a social price setting. In all other cases no distinction can be made based on social criteria.

²⁰ In Portugal, the affordability indicator is measured by a percentage calculated by the ratio between the expenditure in water services with the total household income.

Table 5b. Other eligibility criteria.

Country/ Region	Specifically defined vulnerable customers	Large families	Students	Elderly	Persons with physical disabilities	Customers on the verge of social exclusion ²¹
Belgium/Flanders	yes	no	no	yes	yes	yes
France ²²	no	yes	no	no	no	no
Greece	yes	yes	n.r.	yes	yes	yes
Italy	n.r.	n.r.	n.r.	n.r.	yes	n.r.
Lithuania ²³	n.r.	n.r.	n.r.	n.r.	n.r.	n.r.
Malta	yes	no	no	yes	yes	yes
Portugal ²⁴	yes	yes	n.r.	n.r.	n.r.	n.r.
Spain	yes	yes	no	yes	yes	yes
Yes	5	4	0	4	5	4
No	1	2	4	1	1	1
Not relevant ²⁵	2	2	4	3	2	3
TOTAL	8	8	8	8	8	8

Monitoring of the respect of eligibility criteria was reported in 12 countries, and this is carried out at one or more of the following governance levels:

- National (Belgium, Portugal);
- Regional (Azores, Belgium/Flanders);
- Local (Denmark, Estonia, France, Greece, Italy, Lithuania, Portugal);
- Regulator (Azores, Belgium/Flanders, Bulgaria, Portugal);
- Individual operators (Spain).

²¹ Customers on the verge of social exclusion are those who cannot afford paying for basic services, hence risking to be completely deprived from some of them, such as for instance drinking water. They are different from those who have difficulties in paying, because they are in a situation of extreme poverty.

²² In France, specific affordability measures have been introduced for a limited period of time as an experiment only in some municipalities.

²³ In Lithuania, besides the income-related criteria, the water consumption criteria is applicable, i.e. the exact consumption of water (e.g. 2 cubic meters of cold water per person per month) is set towards which the compensation is applicable.

²⁴ In Portugal, eligibility criteria for students, elderly, persons with physical disabilities and customers on the verge of social exclusion are established by some local municipalities which have the discretion of providing specific support to these groups.

²⁵ For some Members, not all questions could be considered as relevant, for two main reasons: a lack of powers to deal with the items in the survey or a specific regulatory methodology that incorporates different items requested in the survey.

Table 6. Monitoring of norms on eligibility.

Country / Region	Is there a monitoring of changes in the composition of these eligible groups?	Who?
Albania	no	
Azores	yes	Regional/regulator/operators
Belgium/Flanders ²⁶	yes	National/regional/regulator
Bulgaria	yes	Regulator
Croatia	no	
Denmark	yes	Municipalities
Estonia	yes	Municipalities
France ²⁷	yes	Municipalities
Greece	yes	Municipalities
Hungary	n.r.	
Ireland	n.r.	
Italy	yes	Local level (ATO)
Latvia ²⁸	yes	Local municipalities
Lithuania	yes	Municipalities/regulator
Malta	no	
Portugal	yes	National/local level
Spain	yes	Operators
Yes	12	
No	3	
Not relevant²⁹	2	
TOTAL	17	

In 14 WAREG respondent countries, operators are allowed to disconnect or partially curtail access to drinking water in cases where bills are not paid continuously for a specified number of months.

However, prior to disconnecting supplies, water suppliers may be obliged to notify customers through pre-established procedures. Typically, deadlines or payment alternatives must be given to debtors prior to disconnection. In some countries there exists no physical possibility to disconnect water supply in the case of unpaid water bills. An example of this is a block of apartments where connections are not separated and cutting-off would affect the entire block of apartments (i.e. including households without debts). In other cases, prior to disconnection of water services an authorization granted by local committees and/or municipalities may be required, together with specific procedures and approvals that may involve social assistance authorities.

²⁶ In the frame of its 'transparency' task the Flemish Water Regulator is monitoring/analyzing annually a lot of data. The number of water customers receiving social corrections is part of this. However a profound monitoring of 'the vulnerable ones' in general (not specifically for water only) is done by several (other) authorities, both on national and regional level and is captured in the policy for Combating Poverty and Ensuring Equal Opportunities.

²⁷ The reply for France is only related to the experiment for a social price setting. In all other cases there is not such a monitoring.

²⁸ Under the responsibility of local municipalities.

²⁹ For some Members, not all questions in the survey could be considered as relevant. See footnote 20.

Generally, disconnection of water supplies seeks to act as a deterrent for non-payment by customers that are actually able to pay the bill and these generally exclude vulnerable customers. In 8 cases there was a clear distinction between those who are able to pay but choose not to and those who are unable to pay.

Table 7. Possibility to cut-off water and sanitation services supply.

Country / Region	In case of non-payments of bills, can operators cut-off partially or cut totally the access to drinking water, by a household?	Is a distinction being made between consumers who are financially not able to pay and consumers who choose not to pay?
Albania	yes	no
Azores	yes	yes
Belgium/Flanders	yes	yes
Bulgaria	yes	no
Croatia	yes	no
Denmark	yes	no
Estonia	no	no
France	no	no
Greece	yes	yes
Hungary	yes	no
Ireland	no	no
Italy ³⁰	yes	yes
Latvia ³¹	yes	no
Lithuania	yes	no
Malta	yes	yes
Portugal	yes	yes
Spain	yes	yes
Yes	14	7
No	3	10
TOTAL	17	17

³⁰ For Italy, a more detailed description is offered in the annex to this paper.

³¹ According to normative acts service provider has the right to cut access to water services if consumers do not pay the bill. Service provider has to warn consumer about service disconnection 30 days before disconnection.

CHAPTER 4 EXISTING TOOLS TO SUPPORT DISADVANTAGED HOUSEHOLDS

Introduction

The WAREG survey investigated the main mechanisms used in WAREG respondents' countries to tackle affordability, through the following question: what measures are in place to ensure universal access to drinking water?

More than one choice was possible:

- social tariff;
- progressive tariff;
- tariff blocks free of charge;
- public subsidies at national/regional/local level (ex. social aid, tax discounts, etc.);
- solidarity funds (entirely by the operators through tariffs, by general tax money, et;
- discounts;
- exemptions;
- reduced VAT rate;
- prohibition of water supply's interruption.

From the responses received, the observations drawn are summarized in Table 8. The WAREG survey also investigated whether affordability measures are:

- applicable only to drinking water services or whether these extend to include also wastewater services and/or other public utility services (Table 9);
- applied uniformly throughout the country's territory (Table 10);
- applied automatically in the final bill, thereby reducing the final price, or whether a specific procedure is followed by eligible customers to apply for such measures (Table 11).

Analysis of responses

Mechanisms to promote water-specific measures on affordability can be broadly divided into three categories:

- a) Regulatory tools applied to all domestic customers (macro level);
- b) Regulatory tools applied to specific categories of domestic customers (micro level);
- c) Public subsidies.

Within these three categories, the definition of single tools may be different from country to country, and each WAREG respondent indicated that those tools are used in their country for affordability purposes. WAREG respondents adopt one or more of the following regulatory mechanisms aimed for all domestic customers:

- **progressive tariff (8 cases):** the direct correlation between increasing consumption and increasing prices is typically an incentive to rationalize consumption by penalizing abuses (the more you consume the more you pay). A progressive tariff structure by "consumption blocks" can also ensure an affordable price for basic consumption needs, although large families that consume high quantities of water may still suffer from unaffordable prices, if the consumption blocks are not related to family size. In 2 cases (Malta, Belgium/Flanders) the progressive tariff is applied based on family size in order to exclude punishment of large families;

- **calculation of an upper price limit based on the average income of the population (11 cases):** price cap for all households whose costs for water services are above a certain percentage of their average annual income or belong to a specific group having low income;
- **tariff block free of charge (2 cases):** the first consumption block of the tariff structure is provided for free;
- **reduced VAT rate (7 cases):** reduction in VAT rates of water services, with respect to other public services, mitigates the costs incurred by service providers and may translate into lower final prices;
- **cap on the tariff (4 cases):** the cap can be established to revenues (Italy), to the non-volumetric part of the tariff (Belgium/Flanders, Malta) or to the final bill (Ireland).

Regulatory mechanisms reported by respondents addressing some specific categories of domestic customers include the following:

- **solidarity funds, bonus, lump sum (3 cases):** an amount of financial resources that service providers can spare from the tariff, in order to provide aid to specified categories of customers;
- **discounts (4 cases):** discounts on the final bill are granted for specific categories of customers;
- **exemptions (2 cases):** some categories of customers are exempted from paying a part of the tariff structure;
- **tariffs for low-income customers (5 cases):** these are special tariffs defined and managed by water services providers in order to support low income households through a discount on their final bills. The conditions and criteria of access to these mechanisms are usually established by water services providers;
- **compulsory procedure to identify bad debts due to vulnerability conditions (economic, physical, etc.) of specific categories of customers (10 cases):** cutting water supply is not allowed for some specific categories of customers in cases where they do not pay their bill.

Public subsidies received at national, regional and/or local level in 8 cases.

Table 8. Affordability mechanisms for water services.

Country / Region	Regulatory tools applied to all domestic customers (macro level)					Regulatory tools applied to specific categories of domestic customers (micro level)					Public subsidies national/regional/local level
	Progressive tariff	Average (national or regional) income	Tariff blocks free of charge	Reduced VAT rate	Cap on tariff	Solidarity funds/bonus/lump sum	Discounts	Exemptions	Low income	Compulsory procedure before cut-off	
Albania	no	no	no	no	n.r.	no	no	no	yes	no	no
Azores	yes	yes	no	yes	n.r.	no	no	no	no	yes	no
Belgium/ Flanders ³²	yes	no	no	yes	yes	no	yes	no	yes	yes	no
Bulgaria ³³	no	yes	no	no	n.r.	no	no	no	no	yes	no
Croatia	no	yes	no	yes	n.r.	no	no	no	no	yes	yes
Denmark	no	no	no	no	n.r.	no	no	no	no	no	no
Estonia	no	yes	no	no	n.r.	no	no	no	no	no	yes
France ³⁴	yes	yes/no	yes/no	no	n.r.	yes	yes/no	n.r.	no	no	yes
Greece	yes	yes	no	n.r.	n.r.	n.r.	yes	yes	yes	yes	n.r.
Hungary	no	no	no	no	n.r.	no	no	no	no	no	yes
Ireland	no	no	no	no	yes	no	no	no	no	no	yes
Italy	yes	yes	n.r.	yes	yes	yes	n.r.	n.r.	no	yes	n.r.
Latvia ³⁵	no	no	no	no	no	no	no	no	no	no	yes
Lithuania ³⁶	no	yes	no	no	no	no	no	no	no	no	yes
Malta ³⁷	yes	yes	no	yes	yes	no	no	no	no	yes	yes
Portugal	yes	yes	no	yes	n.r.	no	no	no	yes	yes	yes
Spain	yes	yes	yes/no	yes	n.r.	yes	yes	yes	no	yes	no
Yes	8	10	0	7	4	3	3	2	4	9	9
Yes/no ³⁸	0	1	2	0	0	0	1	0	0	0	0
No	9	6	14	9	2	13	12	13	13	8	6
Not relevant ³⁹	0	0	1	1	11	1	1	2	0	0	2
TOTAL	17	17	17	17	17	17	17	17	17	17	17

The survey investigated whether affordability mechanisms are applicable only for potable water supplies or also for wastewater services or other public utility services. It was reported that in 3 countries affordability

³² In Belgium/Flanders the progressive tariff structure is applied based on family size, in order to exclude punishment of large families but also to incentivize the entire population to more sustainable water use. The fixed element (yearly allowance) is capped, the volumetric element (consumption) is not capped. Additionally, part of the cost to establish the sanitation services are subsidized by the regional government.

³³ In Bulgaria, the procedure to cut-off water supply is described in the ordinance and general rules for WSS services provision.

³⁴ The reply for France depends on municipalities where the experiment is or is not conducted. Yes/no answer is possible in cases where both options are valid: "yes" where the experiment is conducted (derogation to the common law), and "no" where the common law is the "normal situation".

³⁵ In Latvia the regulatory body is not responsible for implementation of the principle of affordability. For implementation of social policy in Latvia local municipalities are responsible.

³⁶ In Lithuania although there is an obligation set for the regulator to monitor whether expenses for water and wastewater services do not exceed 4% of average monthly family income, the regulator sets the prices only on the basis of reasonable costs and profits. If a customer is not able to pay, it is possible to turn to social divisions of local municipalities to get support (as provided by the Law on Financial social support for low income families and by the acts of local municipalities).

³⁷ In Malta, the water tariff consists of a fixed element (capped) and a volumetric element (uncapped).

³⁸ Yes/no answer is possible in cases where both options are possible.

³⁹ For some members, not all questions in the survey could be considered as relevant. See footnote 20.

mechanisms apply only to water services while in 12 other countries they apply to both water and wastewater services. In 9 countries similar measures are applied also to other public services.

Table 9. Affordability mechanisms in water and wastewater services.

Country / Region	Are the measures applicable for drinking water?	Are the measures applicable also for wastewater (sanitation) services?	Are these measures similarly employed in other public utility services (ex. electricity, gas, solid/municipal waste, posts, telecommunications, transports, etc.)?
Albania ⁴⁰	yes	yes	yes
Azores	yes	yes	yes
Belgium/Flanders ⁴¹	yes	yes	no
Bulgaria	yes	yes	no
Croatia	yes	no	no
Denmark	n.r.	n.r.	no
Estonia	yes	yes	yes
France	yes	yes	yes
Greece	yes	yes	yes
Hungary	yes	yes	no
Ireland	yes	yes	n.r.
Italy	yes	yes	yes
Latvia ⁴²	yes	yes	yes
Lithuania ⁴³	yes	no	yes
Malta ⁴⁴	yes	yes	yes
Portugal	yes	yes	yes
Spain	yes	no	no
Yes	16	13	10
No	0	3	6
Not relevant⁴⁵	1	1	1
TOTAL	17	17	17

⁴⁰ In Albania, the same affordability measures applied to water and wastewater services are also applied in the electricity sector.

⁴¹ In Belgium/Flanders other public utilities (i.e. energy) do also apply social corrections such as social tariff, but it is not the (exact) same measures.

⁴² In Latvia, financial support from municipalities is also available for other public services.

⁴³ In Lithuania, financial support is also available for heating (as provided by the Law on Financial social support for low income families and by the acts of local municipalities). In other sectors (i.e. electricity, natural gas) other than social financial measures, such as prohibition of disconnection, interruptible supply etc., are applicable.

⁴⁴ In Malta the water bill covers also wastewater services. Such services are not billed separately. The energy benefit given to those eligible customers for affordability reasons covers both the water and electricity bills.

⁴⁵ For some Members, not all questions in the survey could be considered as relevant. See footnote 20.

In cases where affordability measures are applied uniformly at national level, it is expected that they have a uniform application at all levels of administration, including regional and local levels. Hence in these specific cases of uniform application, regional and local application are implicit. Affordability mechanisms are applied uniformly on the entire territory only in 7 cases. In 3 cases they are applied uniformly at regional level while in 7 cases these are applied at local level.

Table 10. Uniform or diversified application of affordability measures.

Country / Region	Equal on national level	Equal on regional level	Equal on local level
Albania	yes	n.r.	n.r.
Azores	no	yes	yes
Belgium/Flanders	no	yes	n.r.
Bulgaria	yes	n.r.	n.r.
Croatia	no	no	yes
Denmark	no	n.r.	yes
Estonia	yes	n.r.	n.r.
France	no	no	yes
Greece	n.r.	no	yes
Hungary	no	no	no
Ireland	yes	n.r.	n.r.
Italy	yes	n.r.	n.r.
Latvia	n.r.	n.r.	n.r.
Lithuania	yes	n.r.	n.r.
Malta	yes	n.r.	n.r.
Portugal	no	no	yes
Spain	no	yes/no	yes
Yes	7	2	7
No	8	5	1
Yes/no	0	1	0
Not relevant⁴⁶	2	9	9
TOTAL	17	17	17

Affordability mechanisms can be incorporated in the service bill (4 cases) or they can be applied at a later stage upon request of the customer (6 cases), following specific procedures established by the operator (7 cases).

⁴⁶ For some Members, not all questions in the survey could be considered as relevant. See footnote 20.

Table 11. Automatic or non-automatic application of water-specific affordability mechanisms in respondents' countries.

Country / Region	Are the affordability measures applied directly (automatically) on the actual water services bill? ⁴⁷	Does an entitled customer need to make a request to get access to the affordability measures?	Does the requestor need to follow a procedure in order to get the measure implemented for him/her?
Albania	n.r.	n.r.	n.r.
Azores	yes	n.r.	yes
Belgium/ Flanders	yes	n.r.	no
Bulgaria	no	n.r.	n.r.
Croatia	yes	n.r.	n.r.
Denmark	n.r.	n.r.	n.r.
Estonia	n.r.	n.r.	n.r.
France ⁴⁸	yes/no	yes	yes
Greece	no	yes	yes
Hungary	no	no	no
Ireland	yes	n.r.	n.r.
Italy	no	yes	yes
Latvia	n.r.	n.r.	n.r.
Lithuania	no	yes	yes
Malta	no	yes	yes
Portugal	no	yes	yes
Spain	no	yes	yes
Yes	4	7	8
Yes/no	1	0	0
No	8	1	2
Not relevant⁴⁹	4	9	7
TOTAL	17	17	17

⁴⁷ Affordability measures refer here to those ones indicated in Table 8 (see above).

⁴⁸ In France, "no" refers to national situations that follow the common law. "Yes" refers to municipalities which decided to conduct the experiment on social price-setting.

⁴⁹ For some Members, not all questions in the survey could be considered as relevant. See footnote 20.

CHAPTER 5 RECOVERING COSTS ASSOCIATED WITH AFFORDABILITY MEASURES

Introduction

This chapter is based on WAREG survey about existing instruments to cover the costs of affordability mechanisms, and particularly on Members' replies to the following questions:

- a) How are costs for affordability measures recovered?
 - Tariff (customer bill). Entirely or partially?
 - State budget (social policy). Entirely or partially?
 - Regional/local subsidies. Entirely or partially?
 - EU Funds. If yes, please provide a brief explanation.
 - Specific funds. If yes, please provide a brief explanation.
 - Other. If possible, please provide further details or explanation.

- b) Do operators (or other entities) provide information about the cost-effectiveness of affordability measures? If yes, can you explain what kind of information is available (e.g. operator cost directly assigned to the measures, decrease in number of non-paying customers and of bill arrears, savings in operating, etc.)?

- c) Are costs incurred by companies for non-payment of bills by households recovered through the tariff?

From the replies received, the following observations could be drawn and summarized in Tables 12 and 13.

Analysis of responses

In most respondents' countries (12 cases) 'normal' water tariffs contribute to the financing of the affordability measures, meaning that these measures have a direct impact (increase) on the tariff of the non-eligible customers.

The share of costs borne by the tariff differs from country to country while in a number of countries this may also differ from one municipality to another. Some countries finance the affordability measures solely through the customer bills (Albania, Azores, Belgium/Flanders, Bulgaria, Denmark), while in other countries (Croatia, France, Greece, Malta, Portugal) the central state budget is also used, in parallel with existing tariffs.

In 4 cases costs for affordability measures are recovered exclusively through regional or local budgets and/or subsidies.

In 3 cases, special funds specifically dedicated to help customers with affordability issues exist. These special funds are financed by the operators (revenues) and sometimes supplemented with local budgets and/or donations.

EU funds are available to support infrastructure investments, although they cannot be considered as affordability measures for customers.

Table 12. Recovery of costs associated with affordability measures.

Country / Region	Tariff (customer bill)	Central State budget (social policy) / Regional and/or local subsidies	Specific funds
Albania	yes	no	no
Azores	yes	no	no
Belgium/Flanders	yes	no	no
Bulgaria	yes	no	no
Croatia	yes	yes	yes
Denmark	yes	no	no
Estonia	no	yes	no
France	yes	yes	no
Greece	yes	yes	n.r.
Hungary	no	yes	no
Ireland	n.r.	n.r.	no
Italy	yes	no	yes
Latvia	no	yes	n.r.
Lithuania	no	yes	no
Malta	yes	yes	no
Portugal	yes	yes	no
Spain	yes	no	yes
Yes	12	9	3
No	4	7	12
Not relevant⁵⁰	1	1	2
TOTAL	17	17	17

⁵⁰ For some Members, not all questions in the survey could be considered as relevant. See footnote 20.

Table 13. Information on costs associated with affordability measures, provided by operators, in respondents' countries.

Country/ Region	Do operators (or other entities) provide information about the cost-effectiveness of affordability measures?	Are costs incurred by companies for non-payment of bills by households recovered through the tariff?
Albania	n.r.	n.r.
Azores	no	no
Belgium/Flanders	yes	yes
Bulgaria	no	no
Croatia	yes	yes
Denmark	no	no
Estonia	n.r.	n.r.
France	n.r.	yes
Greece	no	n.r.
Hungary	no	yes
Ireland	n.r.	n.r.
Italy	yes	yes
Latvia	no	no
Lithuania	no	no
Malta	no	yes
Portugal	no	no
Spain	no	yes
Yes	3	7
No	10	6
Not relevant⁵¹	4	4
TOTAL	17	17

In most respondents' countries, no information is available on the cost-effectiveness of affordability measures.

⁵¹ For some Members, not all questions in the survey could be considered as relevant. See footnote 20.

Summary of results

The findings of this report can be summarised as follows:

1. In most countries surveyed, affordability issues are addressed through water-specific guidelines, e.g. national water laws, regional and local laws. Occasionally, the same guidelines on affordability include both water and sanitation services together with other public services.
2. In most countries surveyed, guidelines concerning affordability are intended to ease the payment of water bills by the entire population. In one third of respondent countries, the guidelines target some specific groups (i.e. the poorest, the disabled, elderly, etc.).
3. Among and within respondent countries the situation is quite varied. The number of cases where guidelines concerning affordability are issued at central level is equal to the number of cases where guidelines are defined at local level (i.e. region, municipality). Sometimes, guidelines co-exist at more than one level (i.e. national and municipal).
4. Typically, the guidelines allow regulators to enforce the rules and/or laws, with little discretionary powers. Some cases of voluntary initiatives by companies have also been reported.
5. In most cases the main criterion adopted for defining affordability is income. Other parameters are taken into account (i.e. health, age, etc.) in some countries.
6. In two-thirds of respondent countries, costs associated with policies and actions to address affordability are recovered through tariffs, while in the other cases this is achieved through fiscal policies or specific funds (i.e. from companies).
7. In most respondent countries, in the case of non-payment of bills, water supply to consumers may be partially or cut-off. Sometimes, cut-off is not permitted in instances where consumers may be eligible for assistance due to affordability issues.

Conclusions

The current debate in European institutional contexts shows that affordability of water and sanitation services has become a relevant issue, not only for the most vulnerable segments of the population but also for operators that need to cover bad debt and regulatory authorities that are required to strike a balance between consumer protection and investment requirements.

The WAREG survey on “Affordability in European water systems” provides a general overview on national normative frameworks. It identifies possible common patterns among different national regulatory mechanisms aimed at ensuring affordability of water and sanitation services. There are considerable differences among European national frameworks and these can be expected to evolve over time.

WAREG intends to update this paper according to the evolution of national norms on affordability in respondent countries.

APPENDIX: NATIONAL CASES WITHIN EUROPE

Affordability of water and sanitation services in Belgium / Flanders region

In Flanders, nearly the entire population has access to high quality drinking water. The right to a connection to an existing public water distribution network is embedded in Flemish law. In addition all charges regarding drinking water supply have to be invoiced (by the supplier) with one integrated invoice⁵², containing and specifying: (1) the costs for the production and distribution (supply) of drinking water, as well as (2) the cost for evacuation and (3) purification of the waste water. The advantage of this integrated invoicing is that consumers are more aware of the total (real) price of drinking water.

Flanders has a mature and well developed network but in order to maintain and improve the infrastructure (to respect the high standards imposed by law in terms of quality and supply), important investments are upcoming. In particular Flanders has been and is still facing huge investments to meet the European requirements with regards to wastewater services. All these investments have impact on the water bills. According to the official Household Budget Survey (HBS), in 2015, the water bill in Flanders represents, on average, 0.8% of a households spending. However the HBS also shows that for some of the lowest incomes this could rise over 4%. It is a primary challenge to keep drinking water affordable for all users.

To address this, Flanders has implemented an advanced system. A combination of several policy measures is adopted, on the one hand to ensure affordability for all users (macro level), with special attention to the vulnerable customers (micro level), but also to encourage and incentivise the entire Flemish population towards more sustainable water use. The costs of the measures are borne by the water tariffs. The tariff regulation ensures sustainable revenues for the suppliers. All the measures described below are enshrined in law and are uniform for the entire Flanders region.

- A uniform Increasing Block Tariff (IBT) tariff structure, customized on family size, is introduced for all those connected to a public network. The IBT structure consists of a (1) capped fixed allowance⁵³ per residence, and an on family size depending volume of (2) Basic water consumption⁵⁴ charged at basic price (30m³ per residence + 30m³ per resident). The rest of the consumption is considered as (3) Comfort water consumption and is charged at comfort price (comfort price = basic price*2). This approach ensures that the entire population of Flanders, is charged at basic (lower/reasonable) price for the basic water requirements. The higher (double) comfort price for comfort use is in line with the 'polluter pays' principle and contributes to raising awareness and incentivizing sustainable water use.
- On top of that, the IBT structure is complemented with additional measures to favor the vulnerable (poor). They are granted a discount of 80% on the total water bill. The criteria to identify the eligible group of vulnerable customers are clearly defined and embedded in the law. Eligibility is related to income. The main goal of defining a specific target group, is to reach, in an efficient way, the financially weakest group. Hence family income has been used as the primarily key to identify them, rather than just a family situation such as number of children, % of disability, etc.

For the vast majority of those eligible, the granting of the social correction (discount) is carried out automatically (= without special request from the beneficiary). Implementing this 'automatic granting'

⁵² Production and distribution represents approximately 42% of the invoice, sanitation 58% (evacuation 33% - purification 25%).

⁵³ The annual fixed allowance is capped at €100 (€50 for the drinking water component, €30 for the evacuation and €20 for the sanitation of the waste water), minus €20 per resident (with a maximum of 5)

⁵⁴ In order to exclude penalization of large families, the IBT structure is customized on family size. The number of persons living in a family is taken in account to determine the basic consumption volume. Hence 1 residence with 1 family of 4 persons = 1*30m³ + 4*30m³ = 150m³ at basic price.

solution means that for the most vulnerable part of the population, the affordability issue is tackled proactively (80% is deducted directly from the amount due on the invoice). Consequently payment problems are generally avoided. All the necessary information exchange is carried out under the coordination and supervision of the government, strictly respecting the privacy legislation.

- In addition a uniform and regulated procedure is established and has to be followed prior to disconnection. For each individual case the Local Advice Committee (LAC) has to be involved. The goal of the long and extend procedure is to ensure that only customers who 'do not want to pay' are disconnected, and to protect those who cannot pay.
- Finally several other additional measures are considered as a right for protected customers; i.e. a monthly payment, a personalised payment plan, exemption for reminder costs. Such customers are also entitled to a free water scan: this means that a specialist examines - on site - water efficiency measures which can be taken to optimise the water consumption of the user.

As a result of this in 2015, 8% of the families in Flanders have received support on the water invoice.

The co-existence of social tariffs (correction measures) applied for specific social groups in parallel to the general tariff system applied for the majority of the population, forces a high level of solidarity (as the costs of the measures are borne by the normal tariffs). This is considered necessary to make it feasible and payable to implement social measures on a large (enough) scale, without putting at risk the high standards in terms of quality, infrastructure and supply service. This means that revenues (for the suppliers) have to be sufficient, such as not to jeopardize the high standards and at the same time also pay for the social measures. Flanders has recently (2016) introduced a tariff regulation and has developed a methodology that ensures the recovery of the reasonable costs. The costs of the affordability measures are part of the tariff plans.

Even though water affordability for all is a concern in Flanders, including and especially for vulnerable customers, there must be awareness on the cost of social measures and the associated implications for the 'Non-eligible' consumers. Therefore monitoring the balance between the 'benefit' for the poor and the 'burden' for the majority is important. Policy makers and regulators have to be aware of the share/the impact of a water invoice on the budget of all households (both rich and poor). In order to make this possible it is **essential** to develop reliable **indicators to measure affordability** for the entire population.

Affordability of water and sanitation services in Estonia

In Estonia the affordability mechanisms are very simple. A government Act establishes that wastewater collection areas (agglomeration) must be set such that the expenses of water and wastewater of one household member do not exceed 4% of the average (regional) net income of a household member. When this occurs, the local government is required to submit a proposal to change borders of agglomeration and select cheaper technical solutions for drinking water supply and wastewater treatment. There are no more water specific affordability instruments, but there are existing general instruments of affordability which cover all communal expenses. If someone is not able to pay for communal expenses (heat, gas, water, rent, etc.), the consumer is afforded the possibility to seek assistance from the social departments of government and local municipalities for support (as provided in the law and by the acts of local municipalities).

Affordability is not subject to price regulation. The regulator sets the price on the base of reasonable costs and profits. If the expenses of water and wastewater of household are higher than 4% of the average (regional) net income of household members, the local municipality must choose cheaper technical solutions for drinking water supply and wastewater treatment or is required to subsidise the price of water.

Affordability of water and sanitation services in France

The French regulation system of water and sanitation services comes from our national history and institutions. The political system is highly decentralized and so are these services (the local authorities). The local authority manages its own service through public operation, or delegates either all or part of it. Either way, the municipality remains responsible for operating the water service and decides on the price of its services. Thus, there is no unique price of water in France, but on the contrary, there may be as many prices as there are local authorities. Moreover price setting depends on different characteristics: localisation of the service, water quality, distance and depth of work, length of network, etc. The Code relative to welfare assistance and family (Art. L. 115-3 *code de l'action sociale et de la famille*) contains measures to provide help for bill payment. One of these measures is the possibility for household to ask the water service (local authority or company) for financial help due to temporary difficulties. This solution is only temporary, and depends on goodwill: it is not compulsory to grant such help. Consumers can also ask for repayment schedule, or the local authority/company can directly offer such a solution. It is compulsory for the local authority/company to charge water at least twice a year but monthly payments are also possible in order to spread the payments throughout the year.

A « Housing Solidarity Fund », known in French as *Fonds solidarité logement* (FSL) was created by law in 1990. This fund is a welfare assistance regime run at a local level (at the “department” level), which provides financial help for households. Its aim is to provide social assistance for all expenses related to water and energy for disadvantaged households (owner, co-owner or leaseholder) who “*are unable to fulfill their obligations related to the payment of water supplies [...]*”. However this fund is not present everywhere in France.

In April 2013, the government voted a law allowing an experimentation in order to “promote access to water and implement a social water pricing” (Law relative to preparation for energy transition, n° 2013-312, of 15th April 2013, “Brottes law”). The goal of this law is to complete the curative system which was already implemented by a preventive one which did not exist before. The new legislation allows for the local authorities who volunteered, to extend social measures by being exempted to comply to the standard legislative framework in effect. The duration of this experimentation carried out by local authorities is of 5 years from the date of entry into force of the law, by April 2018. 48 authorities are allowed to conduct the experiment in France.

The local authority can set a progressive pricing depending on the household social situation. The progressive pricing already existed, but from now on, for applicants who want to, it is possible to set this pricing depending on social situations, for example depending on the household composition or income. Within the increasing block tariff structure, a first consumption block can be free. Up to now there was a prohibition of free water supply which existed since 2006 (LEMA). This prohibition is thus adjourned for social reasons thanks to the new legislation. Another exemption allows the authority to give financial help for households which have difficulties with their water bills and whose resources are considered insufficient. Local Authorities can now give a specific voucher to pay the water bill. A follow-up of this experiment is prescribed, allowing to assess at the end of the experiment which measures are the most relevant, coherent and effective and therefore which solutions could be generalized to the entire territory.

For your complete information:

The cost for water supply for household in France in 2012 was:

The average price for water and sanitation supply reaches 3,85 €/m³ (cubic meter) on the 1st of January 2013: this price is composed of 2,00 €/m³ for potable water and 1,85 €/m³ for sanitation.

Affordability of water and sanitation services in Italy

The Italian Regulatory Authority for electricity gas and water (AEEGSI) took over competencies in the water sector in January 2012, following law n. 214 of 22 December 2011 that extended the same scope and powers for regulating electricity and gas services to water and sanitation services (WSS). Prior to that, affordability issues were dealt at local or regional level, within territorial jurisdictions called “Optimal Territorial Areas” (ATOs). Some ATOs had already adopted affordability measures for disadvantaged categories of customers, before AEEGSI started to take action. For instance in Lazio Region (ATO 2 – Central Lazio Region – Rome), an annual refund is allowed for economically disadvantaged families, covering the equivalent cost of 40 m³ of water consumption per each family member. The cost of such refund is recovered in the tariff, by means of a specific solidarity fund.

AEEGSI has begun to introduce more homogenous rules on affordability of water and sanitation services (WSS) across Italy. In particular, Law nr. 221 of 28 December 2015 (so called “*collegato ambientale*”, entered into force on 2 February 2016) introduced a “social tariff” for integrated water services⁵⁵

According to Law 221, AEEGSI has the power to:

1. modify the tariff structure (currently, in Italy tariffs are directly correlated to consumption levels), taking into account consumption bands or specific usages, with the purpose to recover the costs related to the envisaged affordability measures;
2. define criteria and modalities to recognize preferential treatment in the WSS tariff for the quantity of water supplied, in order to face the fundamental needs of socio-economically disadvantaged domestic customers.

Law 221 also delegated the Italian Government to identify specific principles and criteria to reduce nonpayment of water bills. This aims at ensuring coverage of operators’ efficient costs, while at the same time guaranteeing a minimum quantity of water to satisfy essential needs of all customers.

The Italian Government adopted a decree (entered into force on 14 October 2016) to tackle bad debt as it jeopardises the economic-financial equilibrium of the water industry and risks the provision and good quality of water services. This decree also guaranteed that a minimum vital quantity of 50 liters of drinking water per person per day is provided for free to economically disadvantaged households even if they fail to pay bills, hence prohibiting any cut-off of WSS services for this specific category of customers.

The governmental decree provided AEEGSI with the power to issue specific measures to reduce bad debts in WSS billing without hampering the economic-financial equilibrium of water companies. It also gave power to define the socio-economic disadvantage conditions that entitle customers to receive free access to a minimum quantity of water (50 liters/person/day).

Additionally, the governmental decree provides that curtailment of water services is possible for non-disadvantaged customers that fail to pay, only after specific warning procedures and installment payment modalities are offered by local operators. According to the governmental decree, AEEGSI also has the power to analyse the cost of bad debt in the water industry and to make the necessary adaptations in the tariff methodology ensure the financial sustainability of water companies.

⁵⁵ Article 60, paragraphs 1-2, provides that “the Regulatory Authority for electricity gas and water (AEEGSI), in order to guarantee universal access to water, shall ensure access to water supply at preferential rates for those domestic customers of integrated water services that live in socio-economic disadvantaged conditions, in order to satisfy their fundamental needs. In doing so, AEEGSI will carry out consultations with the local authority governing each Optimal Local Area (ATO), taking into consideration principles and criteria that will be defined by a specific decree of the President of the Council of Ministers, upon a proposal by the Ministry of Environment coordinated with the Ministry of Economic Development, that shall be issued within 90 days from the date of entry into force of the present law”.

Affordability of water and sanitation services in Azores Islands (Portugal)

In Portugal, the state and municipalities are responsible for ensuring the affordability of water and wastewater services, as enshrined in national law. Within the framework of the transfer of duties and responsibilities to local authorities, municipalities are required to ensure the provision of municipal water supply, urban wastewater management services and urban waste management services, pursuant to Law no 159/99, of 14 September, notwithstanding the possibility of creating multi-municipal systems under state ownership. This task may be performed in several ways. In addition to the model involving the direct management of the service through the organisational units of the municipality (through municipal or municipalised services), the possibility also exists of corporatisation of the municipal systems that provide these services and the opening up of their management to the private sector, via concession. It is thus the responsibility of the sector Regulators to regulate, provide guidance and supervise the implementation, management and operation of the multi-municipal and municipal water and waste services, including the issue of general recommendations regarding the tariffs for the services concerned, while respecting the balance between the economic sustainability of the systems and the quality of the services provided, in order to safeguard the interests and rights of citizens in the provision of essential goods and services.

Physical accessibility in the Azores is almost 100% in all municipalities. ERSARA is responsible for establishing recommendations to enable harmonisation of the tariff structures that serve to finance these services, ensuring they are economically and financially rational and ensuring the respective sustainability and the universal nature of the services. In turn, the tariff structure are intended to drive transparency in the tariff system and induce appropriate behaviour in users, without neglecting the need for the existence of a tariff moderation mechanism, specifically the consideration of a social tariff designed to guarantee the affordability of the service for financially disadvantaged households and also tariffs dedicated to large families.

The tariffs in the Azores apply depending on the type of customers (domestic and non-domestic) and tariff structure include a fixed component and a variable component in order to ensure that the expenses related to the services have an equitable impact on all users. With regards to the fixed component of the tariff, this aims to remunerate the management company for fixed costs incurred in the construction, upkeep and maintenance of the systems necessary to provide the service, the variable component being based on a model of progressive blocks of consumption that aims to moderate water consumption. With regards to disadvantaged households and large families, the tariff reduction is reflected in exemption from the fixed component of the tariffs, with large families being subject to the value of the 1st block up to the threshold of the 2nd block. The services are invoiced on a monthly basis, and users may be offered more favourable and convenient alternative mechanisms and billing options, including bi-monthly invoicing.

For the purposes of invoicing, the operator is required to carry out actual readings of the measuring instruments through duly accredited officials at least twice a year, with a maximum period of eight months elapsing between two consecutive readings. In periods where no reading is taken, consumption is estimated based on the average consumption calculated between the last two actual readings taken by the management company. Late payment of the water invoice may be sufficient reason for the supply to be cut off, but the user must be fore-warned of the past due payment, in writing and at least 10 days prior to the date on which the suspension is scheduled. This advance notice provides information regarding the reason for the suspension (i.e. identify the amounts past due), the means available to the user to avoid suspension of the service and to resume the service (i.e. value, location, deadline and method of payment of the amounts past due and any reconnection fee), as well as provides information regarding payment of the amounts required to avoid suspension of the service. Each year, through an analysis of performance indicators, the ERSARA evaluates the physical affordability of the service, counting as a percentage the total number of households located in the water supply area of operation for which the water distribution service infrastructure is available and the affordability of the service, which evaluates the average proportion of average disposable income per household expended on the water supply service in the water operators area of operation.

Affordability of water and sanitation services in Portugal

In Portugal, water services are typically provided at the local level. This means that tariffs are defined by each municipality. Tariffs serve several purposes: to ensure cost recovery of service provision, enabling consumers to perceive value in the service provided and also to guarantee its affordability by users with different incomes. The decentralisation of decision making regarding tariff structures and values means that there is a wide heterogeneity of tariffs nationwide.

Historically, tariff structures in Portugal consist of a fixed part (service availability) and a variable part which follows an increasing block tariff structure (aimed at incentivizing the efficient use of water).

Despite this heterogeneity, the average tariff level for a 10 m³ (standard consumption) is around 1,07 €/m³ for the water supply service and 0,79 €/ m³ for the sanitation service.

These tariffs can be considered affordable at the macro-level – in proportion of the average income household they represent on average 0,40% for water supply and 0,30% for sanitation service. When comparing these charges with other essential services such as energy, telecommunications or transport, water services charges are substantially lower.

However, for the lowest income households, or those who face situations of unemployment or a substantial reduction in income, these consumer charges may represent a substantial challenge and create affordability issues. These issues at the micro-level (lower income households) are common and social mechanisms should be implemented in order to minimize impacts on the ability of consumers to afford water services. Social tariffs can be a good instrument to reduce the monthly charges to these lower income households and more than half of the municipalities in Portugal has this mechanism available.

The role of the regulator in measuring affordability

ERSAR has collected information on tariffs since 2007 and has developed and applied an affordability indicator to regularly check macro-affordability levels (2010). Due to the different tariff structures, there was a need to create three different standard consumption levels (60 m³/year, 120 m³/year and 180 m³/year) to compare charges from different municipalities. The affordability indicator created by ERSAR was designed to assess, at the municipal level, a measure of the ability of the average household (with an average consumption) to pay for water services. Thus, the indicator reflects the ratio between the consumer charges for a standard consumption of 120 m³ and the average household annual income in a given area where the service is provided.

In order to assess average disposable income at the municipal level (the denominator) a purchase power index reflected at the municipal level was used to differentiate income between municipalities.

ERSAR has also developed, a recommendation to harmonise not only tariffs structures but also tariff values. Besides establishing a recommended increasing block tariff structure (< 5 m³; 5-15 m³; 15-25 m³; >25 m³), it also established social tariffs as a broad mechanism to ensure affordability for households with a lower income. This recommendation also established guidelines to abolish connection costs to public networks when these are available close to the property, whose costs are then reflected in the monthly tariffs of the service.

Tariffs have since then gradually increased, following ERSAR's guidelines regarding a sustainable cost-recovery trend and reacting to the benchmarking annually promoted by ERSAR, which exposes both average consumer charges and cost recovery levels for each operator. Despite a gradual average increase, there were significant differences in each municipality and the higher percent increases were typically in municipalities which had fewer population and lower starting point tariffs. Because of that, and despite the fact that income has stagnated in recent years due to the economic crisis, macro-affordability has not registered significant variation.

Social tariffs defined in the recommendation established both the eligibility criteria, adaptable to each municipality and the amount of discount that consumers were entitled to receive, comparing with a regular consumer tariff. Each municipality could decide the income threshold until which a household is entitled to benefit from a social tariff (adapting the low income criteria per each municipality). The consumers who are entitled to the social tariff could benefit from a full discount in the fixed part of the tariff and an extension of the price of the first bracket of consumption (0-5 m³) to the first 15 m³. Overall, this mechanism could represent a final consumer charge 50% lower to those households which is a substantial discount.

Main challenges

The fact that both water tariffs and social policy at the local level are municipal responsibilities often creates incentives for decision makers to artificially over subsidize water services, generating problems in cost recovery levels which can hamper the sustainability of water operators in the long run.

Additionally, in most low-income households, the affordability issue is not limited to water services. Due to the fact that essential goods such as housing, food, education, health, among others, represent a substantial proportion of these households' income, even a small water tariff could leave that household struggling to afford to pay its water bill. For this reason, social mechanisms that tackle poverty in an integrated manner are important. These mechanisms lack coordination between different public agencies and/or with water operators making it difficult to accurately assess those households most in need of social support.

Another significant challenge is to find the best method of raising funds to finance social tariffs implementation. The most common method of funding is through general subsidies that are channeled from other areas of the municipal budget to support lower water tariffs. Cross subsidization between different groups of consumers is also common: normal tariffs are higher in order to be able to subsidize social tariffs.

A proper balance between social mechanisms and achieving sustainability should be considered as an important part of affordability. Unsustainable measures often create problems in the long run so it is very important to achieve an equilibrium between revenues and the costs of these measures to ensure services remain affordable in the long run.

Affordability of water and sanitation services in Spain

Tariffs in Spain generally consist in a fixed charge (service availability) and a variable charge (water consumption). Since water service provision is a municipal authority responsibility, there is a wide variety of prices and discounts. It should be noted that the average price for households is 1.77 €/m³ and for household and non-household reaches the amount of 1.92 €/m³.

In no uncertain terms, risk of falling into poverty in Spain has grown over the past few years and, therefore, affordability is a cause for concern (*see Table 1*).

Affordability is tackled by two different approaches. The first one is achieved at a macro level perspective when tariff structures are the tools to face affordability. Therefore, for basic consumption affordability is related to the fixed part and the first block prices (*see Table 8*). Despite the wide heterogeneity in tariffs, in general, it can be affirmed that basic consumption is relatively affordable in Spain as it only represents a wage of 0.9% of the households incomes. This means that it is relatively small for a country where two thirds of the territory are dry and, where in some parts, even arid. Some cities have also implemented water tariffs based on the number of inhabitants per household.

The second approach adopted to ensure affordability is from a micro level perspective. Different discounts are established so as to achieve the best results in some specific eligible groups or categories. In Spain, these discounts or exemptions are more frequently applied for drinking water service and usually there is no vertical integration among water services. Sometimes these discounts are established due to political considerations rather based on a deeper analysis. In summary, these discounts could be categorised under several categories such as economic, social, efficient use and other. Sometimes social criteria (disabled people, big families or households, retired people, pensioners,...) are complemented by economic criteria (income, unemployment,...) (*see Tables 4, 5a and 5b*). Affordability economic criteria is always taken into account (*see Table 1*). It is important to note that usually economic discounts are established following thresholds.

The current trend is towards establishing “Social exemption tariffs” or “Solidarity funds” which aim to guarantee access to water services to customers (*see Table 8*). On the one hand, social exemption tariffs are enshrined in law, and require political /administrative approval. They are more difficult to be established when the water services are not provided by the same operator. The costs are usually borne through tariffs (*see Table 12*). On the other hand, solidarity funds are easier to be set up (directly or by third parties), usually need budget to be allocated from time to time and the costs are borne mainly by the operator (*see Table 8*). From a micro level viewpoint it is estimated that 600,000 people are granted with these two measures (about 1.3% of the population).

In many instances there appears to be a lack of coordination between water operators and social affairs authorities so as to achieve the target in each eligible group in a more flexible way (*see Table 11*).

Some argue that a regulatory body could guarantee homogeneity on affordability among municipal water services and procedures in Spain. In that way, a regulatory entity could provide some guidelines or criteria so as to harmonize affordability in both macro and micro-level, without hampering municipal competences and deeper knowledge of the municipalities about local customers concerns.