

Template for summary reports in accordance with article 7 of the Protocol on Water and Health

Executive summary

Please provide an overall evaluation of the progress achieved in implementing the Protocol in your country during the reporting period. Please provide a short description of the main steps taken and highlight important achievements, key challenges, success factors and concrete good practice examples.

Suggested length: maximum 2 pages

For Portugal, the target setting process occurred during the reporting period. A working group (WG) was established under the Protocol on Water and Health including the Water and Waste Services Regulation Authority (ERSAR), which is the focal point of the Protocol and coordinates its activities, the Portuguese Environment Agency (APA) and the General Health Directorate (DGS). ERSAR is the Portuguese Water and Waste Services Regulation Authority, which aims to ensure that these services respect the principles of universal access, uninterrupted and high quality of service and efficient and affordable prices; APA is the Portuguese Environment Agency, a public institute within the scope of the Portuguese Ministry of the Environment and Energy Transition, with the mission of propose, develop and monitor, on an integrated and participated manner, the public policies for the environment and sustainable development, in close cooperation with other sectoral policies and public and private entities. At a later stage, Águas de Portugal (AdP) joined the WG. The AdP Group operates nationwide, providing services to the municipalities that are simultaneously shareholders in the companies managing the multi-municipal systems ("upstream" systems) and directly serving their populations through municipal level services ("downstream" systems) for water supply and sanitation.

The team strategy for target setting took into account documents such as the "Guidelines on the Setting of Targets, Evaluation of Progress and Reporting" and "Collection of Good Practices and Lessons Learned on Target Setting and Reporting", prepared by UNECE in 2010 and 2016 respectively, as well as relevant national and international legislation and strategies. Particularly relevant was the Portuguese strategy for the water sector, which is in place for the period 2014-2020 – the "PENSAAR 2020 - A new strategy for the water supply and sanitation". This policy document links to the previous strategies for the water supply and sanitation sector (The PEAASAR 2000-2006 and the PEAASAR 2007-2013). The strategy aims at guaranting continuity, universality, quality and sustainability for these public services. The PENSAAR 2020 has 19 operational goals for 2020, which are based on five Axes, namely: Axis 1 – Protection of the environment and improvement of water sources quality; Axis 2 – Improvement on the quality of services; Axis 3 – Optimization and efficient management of resources; Axis 4 – Socio economic and financial sustainability and Axis 5 – Basic and transversal conditions. Additionally, particular attention was given to the Sustainable Development Goals (SDGs), since, concerning water and sanitation, arrangements are in line with SDG6 - "Ensure availability and sustainable management of water and sanitation for all", which is also a particular target area stipulated in article 6 of the Protocol on Water and Health.

The key challenges during the target setting process were the deficient awareness of the Protocol by stakeholders and poor communication between Protocol and SDG implementation bodies/focal points.

The engagement of high-level decision-makers facilitated the willingness to participate by the actors involved. The way to overcome the lack of communication between Protocol and SDGs was done at technical expert level, when the WG introduced the benefits of using the Protocol's tools to the implementation body responsible for SDG6. Some of the members of the WG were also cooperating with the SDG6 implementation body which facilitated the establishment of a more straightforward communication mechanism between focal points.

The document with the Protocol targets was submitted to a public consultation process, which included an online consultation and a public participation session. Information concerning the Protocol and its goals was also provided in ERSAR's website. Invitation to participate in the public consultation process was sent by e-mail to all major stakeholders of the water and health sectors, which included all water/wastewater stakeholders in the country, NGO, private sector companies and public institutions on environment and health. The Public consultation process was also advertised in the websites of ERSAR, APA and DGS. The same channels were used to publicise the public participation session.

After the public consultation process, a report containing all the suggestions and contributions from the various stakeholders was published in the ERSAR website. Some of the suggestions were included in the final version of the target-setting document, and to those contributes that could not be accomodated an explanation was provided.

The Targets document is now in the process of official publication, in the form of a Decree-Law. The work concerning monitoring of the Protocol's implementation will continue to be assured by the WG (ERSAR, APA, DGS and AdP), for which the Secretary of State of Environment and the Secretary of State of Health will formally assign competence through a joint order.

This report essentially reflects the outcome of the establishment of the objectives under the Protocol, its goals and indicators; for some cases where targets are also monitored under other strategic plans/legislation/SDGs, an analysis of progress is also performed.

Part one

General aspects

1. Were targets and target dates established in your country in accordance with article 6 of the Protocol?

Please provide detailed information on the target areas in part two.

YES ☒ NO ☐ IN PROGRESS ☐

If targets have been revised, please indicate the date of adoption and list the revised target areas. Please provide detailed information in part two.

2. Were targets and target dates published and, if so, how?

Please explain whether the targets and target dates were published, made available to the public (e.g., online, official publication, media) and communicated to the secretariat.

The targets and target dates have been set and publicly discussed: the document with the Protocol targets was submitted to a public consultation process, which included an online consultation and a public participation session. Information concerning the Protocol and its goals was also provided in ERSAR's website. The resulted document is an ongoing process for official publication by a Decree-Law. This process will still take some time and there might lead to eventual changes in some of the targets/indicators during the process of

approval by the Government. The secretariat will soon receive a copy in English of the target-setting document, containing the targets and target dates in the current report.

3. Has your country established national or local arrangements for coordination between competent authorities for setting targets? If so please describe, including information on which public authority(ies) took the leadership and coordinating role, which public authorities were involved and how coordination was ensured.

Under the supervision of the Ministry of Environment and Energy Transition and Ministry of Health, a working group (WG) for target setting under the Protocol on Water and Health was established and includes members of the Water and Waste Services Regulation Authority (ERSAR), which is the focal point of the Protocol and coordinates its activities, the Portuguese Environment Agency (APA) and the General Health Directorate (DGS). Later in the target setting process, the Águas de Portugal (AdP) joined the WG. ERSAR aims to ensure that the services it regulates respect the principles of universal access, uninterrupted, efficient and high quality service at affordable prices. APA is a public institute within the scope of the Portuguese Ministry of the Environment and Energy Transition, with the mission to propose, develop and monitor, on an integrated and participated manner, the public policies for the environment and sustainable development, in close cooperation with other sectoral policies and public and private entities. DGS is a public organism within the Ministry of Health, and has the mission to regulate, guide and coordinate activities to promote health and disease prevention, defining the technical conditions for providing adequate health care, plan and program the national policy for quality in the health system and ensure the development and implementation of the National Health Plan and also the coordination of international relations of the Ministry of Health. AdP plays a structural role in the environment sector in Portugal, operating nationwide and providing services to the municipalities that are simultaneously shareholders in the companies managing the multi-municipal systems (“upstream” systems) and directly serving their populations through municipal level services (“downstream” systems) for water supply and sanitation.

4. Was a programme of measures or action plan developed to support implementation of the targets? If so, please briefly describe that programme or plan, including how financial implications were taken into account.

With the target setting progress and respective indicators, a full set of measures was identified to implement the Protocol and to achieve the targets. The measures were selected taken to account Portuguese Strategic plans and legislation, where financial considerations are already predicted. Therefore, specifically for the Protocol, there was no need to account for additional financial arrangements.

5. What has been done in your country to ensure public participation in the process of target setting in accordance with article 6, paragraph 2, and how was the outcome of public participation taken into account in the final targets set?

After the target setting process developed by the WG, the targets and target dates were subject to a public consultation process, which included an online consultation and a public participation session. Invitation to participate in the public consultation was made to all major stakeholders of the water and health sectors, through direct email contact of the list of ERSAR contacts, which includes all water/wastewater stakeholders in the country, NGO, private sector companies and public institutions on environment and health. Public consultation process was also advertised in the websites of ERSAR, APA and DGS. The same channels were used to publicise the public participation session.

After the public consultation process, a report containing all the suggestions and contributions from the various stakeholders was published in ERSAR's website. Some of the suggestions were included in the final version of the target setting document, and for those that were not accommodated, an explanation was provided.

6. Please provide information on the process by which this report has been prepared, including information on which public authorities had the main responsibilities and what other stakeholders were involved.

This report was prepared by the WG public authorities (ERSAR, APA, DGS and AdP) with ERSAR's coordination under the supervision of the Ministry of Environment and Energy Transition and Ministry of Health.

7. Please report any particular circumstances that are relevant for understanding the report, including whether there is a federal and/or decentralized decision-making structure.

Portugal has a centralized decision-making structure. The information in the report concerns the Continental part of Portugal, therefore excluding the islands of Madeira and Azores.

Part two

Targets and target dates set and assessment of progress

For countries that have set or revised targets and target dates, please provide information specifically related to the progress towards achieving them. If you have not set targets in a certain area, please explain why.

For countries in the process of setting targets, please provide information on baseline conditions and/or targets considered under the relevant target areas.

Suggested length: one page (330 words) per target area.

I. Quality of the drinking water supplied (art. 6, para. 2 (a))

For each target set in this area:

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

Target a.1: Maintenance of the water quality

Monitoring indicator: % of population served by safe water (which is ERSAR Safe water indicator AA04b);

Baseline: 99 % in 2016; Target: Annual target is 99 %

Target a.2: Implementation of risk analysis in water supply systems

Monitoring indicator: % of population served with water that was subjected to a risk analysis;

Baseline: 27 % in 2016; Target: 40% in 2020 and 100 % in 2023

Targets were established according to national (Decree-Law 306/2007, 27th August, altered by Decree-Law 152/2017, 7th December) and EU (Drinking Water Directive) legislation. For target a.2 the Portuguese legislation requires that in 2023 all supply zones should have the water quality programmes based in risk analysis.

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

Measures to reach the targets:

- a.1.1: Implementation of the water quality programme according to the legislation; Decree-Law 306/2007, 27th August, altered by Decree-Law 152/2017, 7th December;

- a.2.1: Establishment and implementation of risk analysis evaluation according to the legislation: voluntary risk evaluation in 2020; mandatory risk evaluation for all supply zones in 2023;

- a.2.2: Continuing the training and development of guidance to water utilities on risk analysis. The methodology to support water suppliers to implement risk analysis evaluation according to the legislation is being defined by a risk analysis working group (RAWG), created on 2018 by ERSAR with health authorities, the Portuguese Water Distribution and Drainage Association (APDA), which represents water, wastewater and water supply management entities and other Portuguese stakeholders in this area, and four representative water suppliers. Training sessions to the water suppliers on the new legislation challenges concerning drinking water risk analysis were carried out during 2018.

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

For target a.1 in 2017 the target value remained 99% (same as baseline), which is consistent with the target itself, which is the maintenance of 99 % of water quality in PT.

For target a.2 in 2018 several training sessions for water suppliers were carried out by ERSAR. The main challenges faced are the lack of awareness concerning risk analysis process, especially for smaller water suppliers. The training sessions were important to raise awareness. Some of the water suppliers are overcoming the lack of knowledge by subcontracting experts on risk analysis and performing a joint work with regional groups of water suppliers and experts. A document is being prepared inside the RAWG, led by the health authorities, to support water suppliers on the risk analysis severity scale definition. An online application is also being developed by ERSAR, where water suppliers will be able to submit the risk analysis process to ERSAR and health authorities approval.

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

The targets set in this area contribute to fulfilling the national and EU legislation and are in accordance with SDG 6, in particular goal 6.1 Equitable and universal access to safe Drinking Water

5. If you have not set a target in this area, please explain why.

Not applicable

II. Reduction of the scale of outbreaks and incidents of water-related disease (art. 6, para. 2 (b))

For each target set in this area:

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

The main purposes are to strengthen the legislative framework for the prevention and control of Legionnaires' Disease and to improve detection and surveillance of waterborne diseases.

Target b.1: Publication of specific legislation regarding Legionnaires' Disease

Baseline: - ; Target: Publication in 2020

Target b.2: Improvement of existing epidemiological surveys regarding the notification of waterborne diseases

Baseline: Base models from DGS ; Target: Proposal presentation in 2022

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

The main actions developed have been the publication of:

- Law No. 52/2018, of August 20, which establishes the regime for the prevention and control of Legionnaires' disease, whose regulation is still in progress.
- Legionella's operational intervention program for environmental prevention in health care units (PIOPAL), which was published by the Office of the Secretary of State for Health - Order No. 10285/2017 of November 27.

Concerning the improvement of epidemiological surveys with regard to the notification of diseases of water origin. This process will start in 2019 and will continue in the following years.

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

The main goals were defined during the course of 2018. At present, the PIOPAL program is already underway, somehow assessing the main risks associated with systems, networks and equipment that produce aerosols at a hospital level.

In this sense, it is the responsibility of the administrations of each Health Unit to delineate and implement its Programs of Prevention and Environmental Control of the Legionella bacterium, following the provisions of DGS and INSA Regulation No. 24/2017, of November 15 - Prevention and Environmental Control of Legionella Bacteria in Health Units.

During 2018, several actions have also been taken to raise awareness of the prevention and control of Legionella bacteria, involving different sectors and in the sense of alerting to the aspects provided for in Law n° 52 / 2018 of August 20.

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

These objectives contribute indirectly to the objectives of sustainable development, namely SDG3 "Good Health and Well-Being", SDG 13 "Climate Actions", and are in line with WHO Europe policy, which is "Healthy Environments for Healthier People" which develops in 3 lines of action, Living and Working Environments, Water and Climate and Environmental and Health Impact Assessment.

5. If you have not set a target in this area, please explain why.

Not applicable

III. Access to drinking water (art. 6, para. 2 (c))

For each target set in this area:

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

In Portugal, more than 95% of the population is served by public drinking water supply systems. Presently, it is necessary to gather efforts to enhance the use of the existing facilities, by promoting the connection to the service of population that has public drinking water supply networks available.

Target c.1: Increasing the level of connection to the water supply system by end users

Monitoring indicator: % of households located in the utility's intervention area with satisfactory¹ evaluation in ERSAR's indicator "AA07b – Connection to the service".

The indicator "AA07b – Connection to the service" is defined as the percentage of the number of households located in the utility's intervention area for which water supply infrastructures are available and have effective service (with a service connection and contract, even if temporarily suspended during part of the year under review).

Baseline: 50% in 2011 ; Target: 80% in 2020

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

The legal framework concerning municipal water sector systems (Decree-Law 194/2009, from 20th of august) is under revision. Utilities are continuing the execution of service connections, aiming to increase the level of connection to the water supply system. Every year ERSAR evaluates water suppliers on this indicator, and the results are made public - this benchmarking promotes improvement.

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

In 2017, the target value was 51%, which is still lagging far behind the target set to 2020.

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

The target set in this area is in line with the one established in the national strategic plan for the water sector (PENSAAR 2020) and is also in accordance with SDG 6, in particular with the goal 6.1 Equitable and universal access to safe Drinking Water.

5. If you have not set a target in this area, please explain why.

¹ By satisfactory evaluation it is meant with good or average service quality evaluation in a certain indicator of the assessment system of the quality of service provided to users by water utilities in Portugal, promoted by ERSAR on an annual basis.

Not applicable.

IV. Access to sanitation (art. 6, para. 2 (d))

For each target set in this area:

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

In Portugal, around 82% of the population is served by public wastewater sewerage and treatment systems. Presently, it is considered that the adoption of on-site systems for small settlements is economically and environmental sustainable.

It is also necessary to gather efforts to enhance the use of the existing facilities, by promoting the connection to the service of population that has sewage network available.

Target d.1: Increasing the level of service coverage through sewerage networks

Monitoring indicator: % of households located in the utility's intervention area with satisfactory evaluation in ERSAR's indicator "AR01ab – Service coverage through sewerage networks"

The indicator "AR01 – Coverage through sewerage networks" is defined as the percentage of the total number of households located in the utility's intervention area for which collection and drainage service infrastructures are available.

Baseline: 67% in 2011; Target: 100% in 2020

Target d.2: Increasing the level of service coverage through sewerage networks and controlled on-site systems

Monitoring indicator: Service coverage through sewerage networks and controlled on-site systems (%)

The indicator "Service coverage through sewerage networks and controlled on-site systems" is defined as the percentage of the total number of households located in the utility's intervention area for which sewerage infrastructures or controlled on-site systems are available

Baseline: 84% in 2016; Target: 90% in 2020

Target d.3: Increasing the level of connection to the wastewater management system by end users

Monitoring indicator: % of households located in the utility's intervention area with satisfactory¹ evaluation in ERSAR's indicator "AR06b – Connection to the service"

The indicator "AR06 – Connection to the service" is defined as the percentage of the total number of households located in the utility's intervention area for which the wastewater service infrastructure is available and is effectively provided (with the existence of a service connection and contract)

Baseline: 48% in 2011; Target: 80% in 2020

Target d.4: Increasing in the number of households for which sewerage networks are available and connected to treatment plants

Monitoring indicator: % of households located in the utility's intervention area with satisfactory¹ evaluation in ERSAR's indicator "AR11b – Accessibility to the wastewater treatment"

The indicator "AR11b – Accessibility to the wastewater treatment" is defined as the percentage of the number of households located in the utility's intervention area for which sewerage networks are available and connected to a treatment plant.

Baseline: 74% in 2011; Target: 100% in 2020

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5 of the Protocol).

In order to reach the target and ensure satisfactory levels of performance, water utilities are implementing the following measures:

- d.1.2: Expansion of wastewater management systems as result of demand and economic-financial sustainability studies;
 - d.2.1: Development of wastewater management infrastructures register;
 - d.2.2: Implementation of management systems for the transport, treatment and final disposal of sludge from on-site systems;
 - d.3.1: Revision of the legal framework (Decree-Law 194/2009);
 - d.3.3: Execution of service connections to existing sewer networks;
 - d.4.1: Connection of retail system infrastructures to bulk system infrastructures, in order to take advantage of the installed capacity in existing plants.
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

In 2017, the target values were:

- d.1 – 83%, 16 percentage points higher than in the baseline;
- d.2 – 88%, 4 percentage points higher than in the baseline;
- d.3 – 58%, 10 percentage points higher than in the baseline;
- d.4 – 89%, 15 percentage points higher than in the baseline.

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

The targets set in this area are in line with those established in the national strategic plan for the water sector (PENSAAR 2020) and are in accordance with SDG 6, in particular with the goal 6.2 "achieve access to adequate and equitable sanitation and hygiene for all".

5. If you have not set a target in this area, please explain why.

Not applicable.

V. Levels of performance of collective systems and other systems for water supply (art. 6, para. 2 (e))

For each target set in this area:

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

Given that the quality of drinking water is analyzed in chapter I, it was considered that the levels of performance of collective water supply systems can be measured by the number of service interruptions.

Target e.1: Decreasing of the number of water supply service interruptions.

Monitoring indicator: % of households located in the utility's intervention area with satisfactory¹ evaluation in ERSAR's indicator "AA03ab – Service interruptions"

The indicator "AA03ab – Service interruptions" is defined as the number of service interruptions per delivery point (bulk systems) or per 1000 service connections (retail systems).

Baseline: 71% in 2011; Target: 100% in 2020

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5 of the Protocol).

In order to reach the target and ensure satisfactory levels of performance, water utilities are implementing the following measures:

- e.1.1: replacement or rehabilitation of mains;
- e.1.2: rehabilitation or installation of pumping systems;
- e.1.3: rehabilitation of reservoirs or construction of new ones with higher capacity;
- e.1.4: Interconnection of systems in order to reinforce available flows.

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

In 2017, the target value was 94%, close to the target established to 2020.

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

The target set in this area is in line with the one established in the national strategic plan for the water sector (PENSAAR 2020) and is in accordance with SDG 6.

5. If you have not set a target in this area, please explain why.

Not applicable.

VI. Levels of performance of collective systems and other systems for sanitation (art. 6, para. 2 (e))

For each target set in this area:

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

Regarding collective wastewater sanitation systems, it was considered that performance levels should be measured by assessing the compliance with the discharge permit.

Target e.2: Increasing of the number of treatment facilities that comply with the discharge permit.

Monitoring indicator: % of households located in the utility's intervention area with satisfactory¹ evaluation in ERSAR's indicator "AR13ab – Compliance with discharge permit"

The indicator "AR13ab – Compliance with discharge permit" is defined as the percentage of the equivalent of the population that is served with treatment plants that ensure compliance with the discharge permit.

Baseline: 30% (bulk service) and 39% (retail service) in 2016; Target: 80% (both bulk and retail services) in 2020

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

In order to reach the target and ensure satisfactory levels of performance, water utilities and national entities are implementing the following measures:

- e.2.1: Water utilities: construction of new wastewater treatment plants (WWTP) or upgrading or rehabilitation of existing plants, in order to increase efficiency or overcome situations of non-compliance with the discharge permit;
- e.2.2: National entities: development of inspection actions to detect situations of non-compliance with the discharge permit.

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

In 2017, the target value was 87% for bulk service and 49% for retail service, still lagging far behind the target set to 2020.

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

The target set in this area is in line with the one established in the national strategic plan for the water sector (PENSAAR 2020) and is also in accordance with SDG 6, in particular with the goal 6.2 "achieve access to adequate and equitable sanitation and hygiene for all".

5. If you have not set a target in this area, please explain why.

Not applicable.

VII. Application of recognized good practices to the management of water supply (art. 6, para. 2 (f))

For each target set in this area:

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

Target f.1: Increase the knowledge on the number of abstractions with "Water Resources Permit".

Monitoring indicator: % of the volume of water abstracted known in licensed abstractions.

Baseline: 65 % in 2016; Target: 80 % in 2021 and 100 % in 2027

Target f.1 was established according to national Water Resources Use Regime (Decree-Law no. 226-A/2007, of 31 May). With regard to the protection of the water sources/abstractions used in the water supply services, it is important to promote the request of the "Water Resources Permit" for all abstractions in operation, in order to ensure and verify compliance with the legal requirements.

The application of recognized good practices to the management of sanitation services can be assessed by the results achieved regarding energetic efficiency, the application of a tariff

that allows the recovery of expenses and the reduction of real water losses. In this sense, the following targets were established:

Target f.2: Increasing of self-produced energy in water supply infrastructures

Monitoring indicator: Ratio "Self-produced energy/Energy consumption"

Baseline: 0,18% in 2011; Target: progress indicator

Target f.5: Sustainable recovery of expenses incurred in the provision of water supply services

Monitoring indicator: % of households located in the utility's intervention area with satisfactory¹ evaluation in ERSAR's indicator "AA06b – Cost recovery ratio"

The indicator "AA06b – Cost recovery ratio" is defined as the ratio between total income and gains and total costs.

Baseline: 46% in 2011; Target: progress indicator

Target f.7: Decreasing of real water losses in the water supply systems.

Monitoring indicator: % of households located in the utility's intervention area with satisfactory¹ evaluation in ERSAR's indicator "AA12b – Real water losses"

The indicator "AA12 – Real Water losses" is defined as the volume of real losses by service connection.

Baseline: 43% in 2011; Target: 80% in 2020

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

To meet the targets the following measures are being implemented:

- f.1.1: Promotion of law enforcement actions to detect situations of non-compliance with abstraction permit;
- f.2.1: Performing energy audits to wastewater management systems;
- f.2.2: Development of studies and implementation of projects in order to improve energy management in water supply systems (e.g. installation of turbines instead of pressure reducing valves), or the production of renewable energy in infrastructures (e.g. installation of photovoltaic panels in reservoirs, buildings, pumping stations);
- f.2.3: Adoption of energy efficiency measures in water supply systems, both infrastructural and optimization of operational procedures;
- f.5.1: The "Tariff regulation for the water sector" is in development.
- f.5.2: Limit access to european funding to entities which to not report this indicator to ERSAR during the quality of service annual evaluation cycle.
- f.7.1: Development of studies regarding water losses in water supply systems and implementation of measurement and control areas;
- f.7.2: Implementation of measures to reduce water losses in water supply systems, including rehabilitation, renovation and replacement of pipes and accessories;

- f.7.3: Implementation of measures to ensure permanent detection and control of water losses through the installation of new equipment and training of responsible teams.
- f.7.4: Notices for funding applications to water suppliers to reduce water losses in the scope of POSEUR - Portuguese program for the allocation of the European Structural and Investment Funds.

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

For target f.1 in 2017 the target value remains 65 % (same as baseline – 2016). PT is in a process of establishing a more comprehensive and complete methodology for the calculation of the volumes of water collected in licensed abstractions.

In 2017, the target values were: f.2 – 1,06%, 0,88 percentage points higher than in the baseline; f.5 – 49%, 3 percentage points higher than in the baseline; f.7 – 62%, 19 percentage points higher than in the baseline.

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

Target f.1 contributes to fulfilling the national and EU legislation and is also in accordance with SDG 6, in particular with the goal 6.4 “substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity, and substantially reduce the number of people suffering from water scarcity”.

Targets f.2, f.5 and f.7 are in line with those established in the national strategic plan for the water sector (PENSAAR 2020) and are also in accordance with SDG 6, in particular with the goal 6.1 Equitable and universal access to safe Drinking Water.

5. If you have not set a target in this area, please explain why.

Not applicable.

VIII. Application of recognized good practice to the management of sanitation (art. 6, para. 2 (f))

For each target set in this area:

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

The application of recognized good practices to the management of sanitation services can be assessed by the results achieved regarding energetic efficiency, the occurrence of sewer collapses and the application of a tariff that allow the recovery of expenses. In this sense, the following targets were established:

Target f.3: Increasing of self-produced energy in wastewater management infrastructures

Monitoring indicator: Ratio "Self-produced energy/Energy consumption"

Baseline: 3.84% in 2011; Target: progress indicator

Target f.4: Decreasing in the number of collapses in sewers

Monitoring indicator: % of households located in the utility's intervention area with satisfactory¹ evaluation in ERSAR's indicator "AR08b – Sewer collapses"

The indicator "AR08 – Sewer collapses" is defined as the number of collapses in sewers per 100 km of sewers.

Baseline: 61% in 2011; Target: 80% in 2020

Target f.6: Sustainable recovery of expenses incurred in the provision of wastewater management services

Monitoring indicator: % of households located in the utility's intervention area with satisfactory¹ evaluation in ERSAR's indicator "AR05b – Cost recovery ratio"

The indicator "AR05b – Cost recovery ratio" is defined as the ratio between total income and gains and total costs.

Baseline: 38% in 2011; Target: progress indicator

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

To meet the targets, water utilities are implementing the following measures:

- f.3.1: Performing energy audits to wastewater management systems;
- f.3.2: Conduct studies and implementation of projects in order to improve energy production capacity in wastewater systems (e.g. sludge codigestion in the WWTP), namely through the use of biogas or the production of renewable energy in infrastructures (e.g. photovoltaic panels);
- f.3.3: Adoption of energy efficiency measures in wastewater management systems, both infrastructural and optimization of operational procedures;
- f.4.1: Replacement or rehabilitation of degraded sewers, rehabilitation of manholes, increase of capacity of pumping systems and implementation of sewers' cleaning routines;
- f.6.1: The "Tariff regulation for the water sector" is in development.
- f.6.2: Limit access to european funding to entities which do not report this indicator to ERSAR during the quality of service annual evaluation cycle.

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

In 2017, the target values were: f.3 – 5,42%, 1,58 percentage points higher than in the baseline; f.4 – 73%, 12 percentage points higher than in the baseline; f.6 – 55%, 17 percentage points higher than in the baseline.

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

The target set in this area is in line with those established in the national strategic plan for the water sector (PENSAAR 2020) and is also in accordance with SDG 6, in particular with the goal 6.3 "improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally".

5. If you have not set a target in this area, please explain why.

Not applicable.

IX. Occurrence of discharges of untreated wastewater (art. 6, para. 2 (g) (i))

For each target set in this area:

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

The occurrence of discharges of untreated wastewater is assessed by the evaluation of the following target:

Target g.1: Increasing in the number of households for which sewerage networks are available and connected to a treatment plant

Monitoring indicator: % of households located in the utility's intervention area with satisfactory¹ evaluation in ERSAR's indicator "AR11b - Accessibility to the wastewater treatment"

The indicator "AR11b – Accessibility to the wastewater treatment" is defined as the percentage of the number of households located in the utility's intervention area for which sewerage networks are available and connected to a treatment plant.

Baseline: 74% in 2011; Target: 100% in 2020

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

To meet the targets and minimize the occurrence of discharges of untreated wastewater, water utilities are implementing the following measures:

- g.1.1: connection of existing sewerage networks to constructed WWTP or construction of new WWTP in settlements already served by sewerage network;
- g.1.2: execution of remodeling works, improvement and/or construction of new sewerage systems and/or WWTP justified from cause-effect and cost-benefit relationships.

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

In 2017, the target value was 89%, 15 percentage points higher than in the baseline.

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

The target set in this area is in line with the one established in the national strategic plan for the water sector (PENSAAR 2020) and is also in accordance with SDG 6, in particular with the goal 6.3 "improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally".

5. If you have not set a target in this area, please explain why.

Not applicable.

X. Occurrence of discharges of untreated storm water overflows from wastewater collection systems (art. 6, para. 2 (g) (ii))

For each target set in this area:

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

The occurrence of discharges of untreated storm water is assessed by the evaluation of the following target:

Target g.2: Increasing in the control of emergency discharges of untreated wastewater to the receiving environment

Monitoring indicator: % of households located in the utility's intervention area with satisfactory¹ evaluation in ERSAR's indicator "AR12 – Control of emergency discharges"

The indicator "AR12 – Control of emergency discharges" is defined as the percentage of weirs with direct discharge into the receiving environment that are monitored and operate satisfactorily.

Baseline: 17% in 2016; Target: Progress indicator

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

To meet the targets and minimize the occurrence of discharges of untreated storm water, water utilities are implementing the following measures:

- g.2.1: Development of plans and studies regarding I/I [infiltration (groundwater) and inflows (flows through manholes or unauthorized connections)] in sanitation sewer networks in order to define good practices in organizations that tend to reduce I/I;
- g.2.2: Identification of untreated wastewater discharge points on problematic sewer sections, supported by CCTV inspections;
- g.2.3: Repair of sewers and manholes with leakage problems.
- g.2.4: Benchmarking the indicator results nationwide by ERSAR (benchmarking regulation - public annual report), which promotes wastewater management entities to take actions.

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

In 2017, the target value was 48%, 31 percentage points higher than in the baseline.

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

The target set in this area is in line with the one established in the national strategic plan for the water sector (PENSAAR 2020) and is also in accordance with SDG 6, in particular with the goal 6.3 "improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally".

5. If you have not set a target in this area, please explain why.

Not applicable.

XI. Quality of discharges of wastewater from wastewater treatment installations (art. 6, para. 2 (h))

For each target set in this area:

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

Target h.1: Increase in the number of urban wastewater treatment plants complying with the discharge requirements.

Monitoring indicator h.1: % of urban wastewater treatment plants with a population served ≥ 2000 e.p. complying with the discharge requirements of the Urban Waste Water Treatment Directive (UWWTD).

Baseline: 84 % in 2016; Target: 95 % in 2021

Target h.1 was established according to Directive 91/271/EEC of the Council of 21 May 1991 (Urban Waste Water Directive) subsequently amended by Directive 98/15/EC of the Commission of 27 February 1998 and by Regulation (EC) 1882/2003 of the European Parliament and of the Council of 29 September 2003, and transposed into national law by Decree-Law no. 152/97, of 19 June 1997 (amended by Decree-Laws no. 149/2004, of 22 June, no. 198/2008, of 8 October, and no. 133/2015, of 13 July) and by Decree-Law no. 348/98, of 9 November. This Directive covers the discharge of urban wastewater from agglomerations with a population equivalent (p.e.) of more than 2 000 in freshwater and estuaries, as well as discharges from agglomerations with a p.e. of more than 10 000 in coastal waters, which must be subjected to secondary treatment if they reject in a normal zone or more advanced than the secondary if they reject in sensitive zones and have a size $\geq 10\,000$ p.e. and establishes the discharges conditions of urban wastewater in the aquatic environments.

Target h.2: Increase in the number of industrial wastewater treatment plants complying with the discharge requirements.

Monitoring indicator h.2: % of industrial wastewater treatment plants complying with the discharge requirements of the Industrial Emissions Directive.

Baseline: – ; Target: 80 % in 2021

Target h.2 was established according to Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) and transposed into national law by Decree-Law no. 127/2013, of 30 August, which establishes the industrial emissions regime applicable to integrated pollution prevention and control, as well as the rules to avoid and/or reduce emissions on air, water and soil and waste generation in order to achieve a high level of protection of the environment as a whole and of water resources in particular.

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

Measures

- h.1.1 and h.2.1: Promotion of law enforcement actions and inspection actions in order to detect situations of non-compliance with the permit discharge requirements.

- h.1.2 and h.2.2: Interventions to increase the efficiency of wastewater treatment systems through the construction and rehabilitation of wastewater treatment plants.

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

For target h.1 in 2017 the target value remains 84 % (same as baseline – 2016). (Note: Since the Report of the UWWTD is biennial, we will have a new value for 2018 only in 2019).

For target h.2 we will have a value during 2019.

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

The targets set in this area contribute to fulfilling the national and EU legislation and are also in accordance with SDG 6, in particular with the goal 6.3 “improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally”.

5. If you have not set a target in this area, please explain why.

Not applicable

XII. Disposal or reuse of sewage sludge from collective systems of sanitation or other sanitation installations (art. 6, para. 2 (i))

For each target set in this area:

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

Target i.1: Absence of disease cases proven to be related to the reuse of treated urban wastewater and to the application in agriculture of sewage sludge from wastewater treatment plants.

Monitoring indicator i.1: Number of disease cases proven to be related to the reuse of treated urban wastewater and to the application in agriculture of sewage sludge from wastewater treatment plants.

Baseline: there is no systematization of information; Target: 0 in 2027

Target i.1 was established according to national Decree-Law no. 276/2009, of 2 October, that establishes the regime for the use of sewage sludge in agricultural soils, transposing into national law the Directive 86/278/EEC of the Council of 12 June 1986, in order to avoid harmful effects on humans, water, soil, vegetation and animals, by promoting its correct use.

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

Measure

- i.1.2: Revision of the current legal framework and development of specific regulation on the quality of the product and the conditions of exercise of the activity.

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

Not applicable, since baseline is unknown

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

The target set in this area contributes to fulfilling the national and EU legislation and is also in accordance with SDG 6, in particular with the goal 6.3 “improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally”.

5. If you have not set a target in this area, please explain why.

Not applicable

XIII. Quality of wastewater used for irrigation purposes (art. 6, para. 2 (i))

For each target set in this area:

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

Target i.1 – Absence of disease cases proven to be related to the reuse of treated urban wastewater and to the application in agriculture of sewage sludge from wastewater treatment plants.

Monitoring indicator i.1: Number of disease cases proven to be related to the reuse of treated urban wastewater and to the application in agriculture of sewage sludge from wastewater treatment plants.

Baseline: There is no systematization of information; Target: 0 in 2027

Target i.1 takes into consideration the European Commission proposal for a regulation on minimum requirements for water reuse, adopting a “fit-for-purpose” approach (the development of appropriate reuse projects supported by a risk assessment methodology, with the adoption of multi-barrier criteria for risk reduction/minimization to an acceptable level).

2. Please describe the actions taken (c.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

Measures

- i.1.1: Definition of specific standards appropriate to the type of use of wastewater treated through the application of a “fit-for-purpose” approach;

- i.1.2: Revision of the current legal framework and development of specific regulations on the quality of the product and the conditions of exercise of the activity.

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

In PT, due to expected reductions in water availability caused by an increase of water use and to the climate change effects, water reuse is becoming an important issue, with a number of studies and projects seeking to move forward. A National Strategy, specific legislation for various uses, and a Guide for the implementation and management of water reuse projects are therefore being finalized till the end of 2019. These documents adopt a “fit-for-purpose” approach, i.e. the development of appropriate reuse projects supported by a risk assessment

methodology, with the adoption of multi-barrier criteria for risk reduction/minimization to a level considered acceptable.

3. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

The target set in this area contributes to fulfilling the national and EU legislation and is also in accordance with SDG 6, in particular with the goal 6.3 “improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally”.

5. If you have not set a target in this area, please explain why.

Not applicable

XIV. Quality of waters which are used as sources for drinking water (art. 6, para. 2 (j))

For each target set in this area:

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

Target j.1: Compliance with the specific objectives of protected areas for the water abstraction for human consumption in accordance with the WFD (Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000).

Monitoring indicator j.1.1: % of surface water bodies used for the water abstraction for human consumption, designated as protected areas, which fulfil the specific objectives, in accordance with the WFD (Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000).

Baseline: 82 % in 2016; Target: 100 % in 2027

Monitoring indicator j.1.2: % of groundwater bodies used for the water abstraction for human consumption, designated as protected areas, which fulfil the specific objectives, in accordance with the WFD (Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000).

Baseline: 90 % in 2016; Target: 100 % in 2027

Target was defined according to Decree-Law no. 236/98, of 1 August, that establishes quality standards, criteria and objectives for the purpose of protecting the aquatic environment and improving water quality in relation to its principal uses and determines, in Article 6 (surface water) and in Article 14 (groundwater), that waters intended for the production of drinking water have to be inventoried and classified. According to the WFD and the National Water Law, Portugal “shall identify, within each river basin district, all bodies of water used for the abstraction of water intended for human consumption providing more than 10 m³ a day as an average or serving more than 50 persons, and also those bodies of water intended for such future

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

Measures

- j.1.1: Implementation of measures, in particular those included in the River Basin Management Plans (RBMP), and establish new measures, if necessary, that contribute to the protection of the surface water bodies destined to the water abstraction for human consumption;
- j.1.2: Improvement of the assessment of the quality of surface water and groundwater abstraction for human consumption, within the framework of the implementation of the WFD, including the revision of Decree-Law no. 236/98, of 1 August, regarding to this subject.

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

For target j.1 in 2017, monitoring indicators j.1.1 (surface water) and j.1.2 (groundwater) the target values remain 82 % and 90 % respectively (same as baseline – 2016). New values for these monitoring indicators will only be available in 2021 (for the next planning cycle, 2022-2027).

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

The target set in this area contribute to fulfilling the national and EU legislation and is also in accordance with SDG 6, in particular with the goal 6.1 “achieve universal and equitable access to safe and affordable drinking water for all”.

5. If you have not set a target in this area, please explain why.

Not applicable

XV. Quality of waters used for bathing (art. 6, para. 2 (j))

For each target set in this area:

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

Target j.2: High percentage of bathing waters with excellent classification and absence of bathing waters with bad classification.

Monitoring indicator j.2.1: % of bathing waters with bad classification.

Baseline: 1,1 % in 2014; Target: 0 %, annual

Monitoring indicator j.2.2: % of transitional or coastal bathing waters with excellent classification.

Baseline: 87 % in 2014; Target: ≥ 89 %, annual

Monitoring indicator j.2.3: % of inland bathing waters with excellent classification.

Baseline: 53 % in 2014; Target: ≥ 60 %, annual

Target was established according to Directive 2006/7/EC of the European Parliament and of the Council of 15 February 2006, regarding the management of bathing water quality, and transposed into national law by Decree-Law no. 135/2009, of 3 June, altered and republished

by Decree-Law no. 113/2012, of 23 May (legislation which establishes the legal regime for the identification, management, monitoring and classification of bathing water quality and the provision of information to the public). According to this legislation, bathing waters are to be identified annually and their quality assessed.

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

Measures

- j.2.1: Promotion of the coordination of relevant entities in the field of bathing waters management, including through the Portuguese Bathing Waters Management Commission;
 - j.2.2: Adoption of the necessary actions to ensure the absence of bathing waters with bad classification and to ensure a high percentage of bathing waters with an excellent classification.
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

For target j.2 in 2017, the values of the indicators j.2.1 (bathing waters with bad classification), j.2.2 (transitional or coastal bathing waters with excellent classification) and j.2.3 (inland bathing waters with excellent classification) are, respectively, 0.8 %, 90.6 % and 78.9 %.

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

The target set in this area contribute to fulfilling the national and EU legislation and is also in accordance with SDG 6, in particular with the goal 6.3 “improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally”.

5. If you have not set a target in this area, please explain why.

Not applicable

XVI. Quality of waters used for aquaculture or for the production or harvesting of shellfish (art. 6, para. 2 (j))

For each target set in this area:

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

Target j.3: Compliance with the specific objectives of the protected areas of the WFD (Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000) regarding the areas for production of live bivalve molluscs.

Monitoring indicator j.3 – % of surface water bodies designated as protected areas of the WFD regarding the areas for production of live bivalve molluscs which fulfil the specific objectives.

Baseline: 90 % in 2016; Target: 100 % in 2027

Target was established according to Directive 91/492/EEC of the Council of 15 July 1991, and transposed into national law by Decree-Law no. 112/95, of 23 May, that lays down the

health conditions for the production and the placing on the market of live bivalve molluscs. Regulation (EC) 854/2004 of the European Parliament and of the Council of 29 April 2004 requires the definition and classification of production areas for live bivalve molluscs, defining “production area”, in accordance with Regulation (EC) 853/2004 of the European Parliament and of the Council of 29 April 2004, as any part of the sea, estuarine or lagoon area, containing either natural beds of bivalve molluscs or sites used for the cultivation of bivalve molluscs, where live bivalve molluscs are harvested.

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

Measures

- j.3.1: Implementation of the measures, in particular those of the River Basin Management Plans (RBMP), and further measures, if necessary, to contribute to the protection of the areas for production of live bivalve molluscs.

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

For target j.3 in 2017 the target value remains 90 % (same as baseline – 2016). A new value for this target will only be available in 2021 (for the next planning cycle, 2022-2027).

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

The target set in this area contribute to fulfilling the national and EU legislation and is also in accordance with SDG 6, in particular with the goal 6.6 “protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes”.

5. If you have not set a target in this area, please explain why.

Not applicable

XVII. Application of recognized good practice in the management of enclosed waters generally available for bathing (art. 6, para. 2 (k))

For each target set in this area:

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

Public health services have for many years carried out health surveillance programs, applied to coastal bathing areas and inland and transitional bathing areas, and also sanitary surveillance programs focused to public swimming pools

One of the objectives is to review the Health Directorate-General's standard for the sanitary surveillance program for public swimming pools, adapting it to the new scientific and technical knowledge in this area and concerning the emerging risks.

Another important aspect associated with those subjects is the use of natural mineral water and its application for thermal purposes provided for in Decree-Law 142/2004 of June 11.

In this sense, one of the aspects to be highlighted is the elaboration of the Program of Quality Control of the Natural Mineral Water in Thermal establishments, which must be elaborated and published at the beginning of all civil years to be implemented along each civil year in the thermal establishments.

Target k.1: Elaboration and publication of the Program of Quality Control of the Natural Mineral Water in Thermal establishments

Baseline: Decree-Law 142/2000 of 1 of June; Target: Annual publication

Target k.2: Revision of the Health Directorate-General's standard for the sanitary surveillance program for public swimming pools'

Baseline: -; Target: Publication in 2019

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

The main action was to create a Working Group to review the health surveillance program for public swimming pools, involving professionals from the different Departments of Public Health of the Regional Health Administrations and the General Directorate of Health.

At the level of the Quality Control Program for the natural mineral water in thermal establishments, improvements have been developed in order to safeguard the health of users and to promote health and well-being, the promotion of their dissemination and implementation in articulation with the regional health authorities and the local health authorities

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

Under the Program for Controlling the Quality of Natural Mineral Water in Thermal Establishments, there has been a progressive increase in the frequency of the analysis and the control of the equipment in the context of the different thermal uses. The program for the year 2019, has already been announced for the implementation at all the spas.

The updating of the sanitary surveillance program for public swimming pools is in progress and under discussion, and it is possible in the course of 2019, to be published a new version as a standard of the General Directorate of Health.

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

These objectives indirectly contribute to the objectives of sustainable development, in particular the SDG3 " Good Health and Well-Being.

5. If you have not set a target in this area, please explain why.

Not applicable

XVIII. Identification and remediation of particularly contaminated sites (art. 6, para. 2 (I))

For each target set in this area:

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

Target 1.1: Implementation of the corrective measures established in the 2nd planning cycle of the River Basin Management Plans (RBMP 2016-2021).

Monitoring indicator 1.1: Number of corrective measures foreseen in the 2nd planning cycle of the RBMP (2016-2021) implemented in contaminated sites.

Baseline: 0 % in 2015; Target: 40 % in 2018 and 100 % in 2021

Target was established according to WFD, Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000, transposed into national law by Water Law no. 58/2005, of 29 December (amended and republished by Decree-Law no. 130/2012, of 22 June). The qualitative pressures responsible for point pollution on water bodies are generally related to the rejection of wastewater from a variety of activities, including urban, industrial and livestock sources. On the other hand, the qualitative pressures responsible for diffuse pollution result from the entrainment of natural and anthropogenic pollutants by surface runoff to surface water bodies or by leaching to groundwater bodies. The RBMP of the 2nd planning cycle (2016-2021) include an assessment, among other aspects, of point and diffuse pressures on the quality of water bodies, identifying contaminated sites that negatively affect the quality of surface and groundwater bodies, and specify measures to achieve the environmental objectives of Good Status of water bodies.

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

Measures

- 1.1.1: Implementation of the corrective measures foreseen in the 2nd planning cycle of the RBMP (2016-2021) for contaminated sites;

- 1.1.2: Establishment of new measures, if necessary, based on cause-and-effect evaluation studies between pressures and impacts.

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

For target 1.1, in 2017 the value was 13 % (average percentage of physical implementation of corrective measures foreseen in the RBMP of the 2nd planning cycle, during the period 2016-2017 in contaminated sites).

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

The target set in this area contribute to fulfilling the national and EU legislation and is also in accordance with SDG 6, in particular with the goal 6.3 “improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally”.

5. If you have not set a target in this area, please explain why.

Not applicable

XIX. Effectiveness of systems for the management, development, protection and use of water resources (art. 6, para. 2 (m))

For each target set in this area:

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

Target m.1: Fulfilment of the environmental objectives of the WFD to achieve the Good Status of the water bodies.

Monitoring indicator m.1: % of water bodies in Good Status according to the WFD.

Baseline: 54 % in 2015; Target: 77 % in 2021 and 100 % in 2027

Target m.2: Implementation of the measures included in the RBMP of the 2nd planning cycle (2016-2021).

Monitoring indicator m.2: Executed / Not Executed / Ongoing.

Baseline: 0 % in 2015; Target: 30 % in 2018 and 90 % in 2021

Targets were established according to WFD, Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000, transposed into national law by Water Law no. 58/2005, of 29 December (amended and republished by Decree-Law no. 130/2012 of 22 June). This legislation sets as environmental objectives the Good Status, or Good Potential, of water bodies, which must be achieved through the application of the programs of measures specified in the RBMP. In the context of the elaboration of the RBMP of the 2nd planning cycle (2016-2021), the regional specificities were taken into account, namely the spatial and temporal variability of the quantity and quality of the water, pressure distribution, while guaranteeing a harmonization of planning and management procedures applied in the development of the different themes which compose them.

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

Measures

- m.1.1: Implementation of the measures established in the RBMP of the 2nd planning cycle (2016-2021);
- m.1.2: Development of geographic information systems with the objective of systematizing and updating information on water pressures;
- m.1.3: Improving knowledge of the Status of water bodies through monitoring and/or modelling;
- m.1.4: Promotion of law enforcement actions;
- m.1.5: Establishment of new measures in the RBMP of the 3rd planning cycle (2022-2027), based on cause-and-effect evaluation studies between pressures and impacts, to fulfil environmental objectives;
- m.2.1: Implementation of the measures established in the RBMP of the 2nd planning cycle (2016-2021).

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

For target m.1 in 2017 the target value remained 54 % (same as baseline – 2015). A new value for this target will only be available in 2021 (for the next planning cycle, 2022-2027).

For target m.2 in 2017 the situation of the measures is as follows:

Situation	%	Description
Executed	7.2 %	Measures executed until the end of 2017.

Situation	%	Description
Ongoing	35.8 %	Measures started until the end of 2017, whose execution takes place during the 2nd planning cycle but can be extended to the 3rd planning cycle of the RBMP.
Executed continuously	8.9 %	Measures executed until the end of 2017, but whose execution is continuous.
Yet to be executed	4.6 %	Measures start execution after 2017.
Postponed	32.9 %	Measures start before the end of 2017, and which schedule has been postponed but will be executed during the 2nd planning cycle of the RBMP.
Not executed in this planning cycle	5.1 %	Measures that will not be executed in the 2nd planning cycle but will be executed in the 3rd planning cycle of the RBMP.
Not executed	5.6 %	Measures that will not be executed.

3. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

The targets set in this area contribute to fulfilling the national and EU legislation and are also in accordance with SDG 6, in particular with the goal 6.5 “implement integrated water resources management at all levels, including through transboundary cooperation as appropriate”.

5. If you have not set a target in this area, please explain why.

Not applicable

XX. Additional national or local specific targets

In cases where additional targets have been set, for each target:

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

Not applicable

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

Not applicable

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

Not applicable

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

Not applicable

5. If you have not set a target in this area, please explain why.

Not applicable

Part three

Common indicators²

I. Quality of the drinking water supplied

1. Context of the data

1. What is the population coverage (in millions or per cent of total national population) of the water supplies reported under sections 2 and 3 below?

The rationale of this question is to understand the population coverage of the water quality data reported under sections 2 and 3 below.

Please describe the type of water supplies for which data is included in the following tables, and the population share covered by these supplies.

Please also clarify the source of the water quality data provided (e.g., data from regulatory authorities).

The population estimates from the National Institute of Statistics in 2017 was 10.291.027 inhabitants. The population covered by the public water supplies systems in 2017 is, according to the data of the drinking water suppliers, 9.986.415 inhabitants. It is important to stress that the later number includes seasonal population (tourism).

The percentage of the total population covered by a public drinking water supply is 96 %.

The source of the water quality data is from ERSAR, since it is the national drinking water authority and regulator.

2. Please specify from where the water quality samples reported in sections 2 and 3 below are primarily taken (e.g., treatment plant outlet, distribution system or point of consumption).

The rationale of this question is to understand where the samples were primarily taken from for the water quality data reported in sections 2 and 3 below.

In Portugal, following the EU rule (EU Drinking Water Directive - 98/83/EC), the samples are taken at the point of consumption.

3. In sections 2 and 3 below, the standards for compliance assessment signify the national standards. If national standards for reported parameters deviate from the World Health Organization (WHO) guideline values, please provide information on the standard values.

The rationale of this question is to understand any possible differences between the national standards for microbiological and chemical water quality parameters and the respective WHO guideline values.³

² In order to allow an analysis of trends for all Parties under the Protocol, please use wherever possible 2005 — the year of entry into force of the Protocol — as the baseline year.

³ The latest edition of the WHO *Guidelines for Drinking-water Quality* is available at: http://www.who.int/water_sanitation_health/publications/dwq-guidelines-4/en/.

The national standards in Portugal (Decree-Law 306/2007, 27th August, altered by Decree-Law 152/2017, 7th December) derive from the transposition of the EU Drinking Water Directive (98/83/EC).

2. Bacteriological quality

4. Please indicate the percentage of samples that fail to meet the national standard for *Escherichia coli* (*E. coli*). Parties may also report on up to three other priority microbial indicators and/or pathogens that are subject to routine water quality monitoring.

If possible, please provide segregated data for urban and rural areas in the table below. If this is not possible, please consider reporting by alternative categories available in your country, for example by “non-centralized versus centralized” water supplies or by population number-based categories. If you do so, please indicate the reported categories by renaming the rows in the column “area/category” in the table below accordingly.

If data can be reported neither for urban and rural areas nor for alternative categories, please report total (national) values only.

Please comment on the trends or provide any other important information supporting interpretation of the data.

Parameter	Area/category	Baseline value (2005)	Value reported in the previous reporting cycle (2015)	Current value (2017)
<i>E. coli</i>	Total	2.26 %	0.72 %	0.56 %
	Urban			0.10 % 0.24 % (Medium urban)
	Rural			0.91 %
Enterococci:	Total	3.74 %	1.58 %	0.77 %
	Urban			0.41 % 0.13 % (Medium urban)
	Rural			0.94 %

Non-compliances in microbiological parameters show a decreasing trend. This is mainly due to an improvement of disinfection systems. Increasing in the installation of automatic disinfection systems and improving monitoring control have progressively reduced those non-compliances.

3. Chemical quality

5. Please report on the percentage of samples that fail to meet the national standard for chemical water quality with regard to the following parameters:

- (a) Arsenic;
- (b) Fluoride;
- (c) Lead
- (d) Nitrate.

6. Please also identify up to three additional chemical parameters that are of priority in the national or local context.

If possible, please provide segregated data for urban and rural areas in the table below. If this is not possible, please consider reporting by alternative categories available in your country, for example by “non-centralized versus centralized” sanitation systems or by population number-based categories. If you do so, please indicate the reported categories by renaming the rows in the column “area/category” in the table below accordingly.

If data can be reported neither for urban and rural areas nor for alternative categories, please report total (national) values only.

Please comment on the trends or provide any other important information supporting interpretation of the data.

<i>Parameter</i>	<i>Area/category</i>	<i>Baseline value (2005)</i>	<i>Value reported in the previous reporting cycle (2015)</i>	<i>Current value (2017)</i>
Arsenic	Total	2.83 %	1.58 %	2.09 %
	Urban			1.00 % 0.00 % (Medium urban)
	Rural			2.49 %
Fluoride	Total	1.14 %	0.14 %	0.21 %
	Urban			0.13 % 0.00 % (Medium urban)
	Rural			0.24 %
Lead	Total	0.28 %	2.08 %	1.92 %
	Urban			0.83 % 2.12 % (Medium urban)
	Rural			1.96 %
Nitrate	Total	0.67 %	0.11 %	0.11 %
	Urban			0.03 % 0.00 % (Medium urban)
	Rural			0.18 %
Iron	Total	5.61 %	3.95 %	3.53 %
	Urban			0.83 % 2.26 % (Medium urban)
	Rural			4.07 %
Manganese	Total			1.55 %
	Urban			0.28 % 0.49 % (Medium urban)
	Rural			2.41 %

Arsenic and Fluoride show a slight increasing of non-compliances compared with the previous reporting cycle. They appear particularly in rural areas where those substances are naturally occurring in groundwater and may arise in higher concentrations depending on water depth and under certain weather-related conditions. For some of this small systems water suppliers are currently installing treatment systems for the removal of those constituents (especially for arsenic) or are looking for alternative water resources to supply the population. The Lead increase of non-compliances between 2005 and 2015 is related with a change in the national standard from 25 µg/L to 10 µg/L.

II. Outbreaks and incidence of infectious diseases related to water

In filling out the below table, please consider the following points:

(a) For reporting outbreaks, please report confirmed water-related outbreaks only (i.e., for which there is epidemiological or microbiological evidence for water to have facilitated infection);

(b) For reporting incidents, please report the numbers related to all exposure routes. In your response:

(i) Please report cases per 100,000 population;

(ii) Please differentiate between zero incidents (0) and no data available (-).

Please extend the list of water-related diseases, to the extent possible, to cover other relevant pathogens (e.g., enteric viruses, Giardia intestinalis, Vibrio cholerae).

Please indicate how the information is collected (e.g., event-based or incidence-based surveillance).

Please comment on the trends or provide any other important information supporting interpretation of the data.

Disease	Incidence rate per 100,000 population (all exposure routes)			Number of outbreaks (confirmed water-borne outbreaks)		
	Baseline (2005)	Value reported in the previous reporting cycle (2015)	Current value (2018*)	Baseline (2005)	Value reported in the previous reporting cycle (2015)	Current value (2018*)
Shigellosis	0.02	0.32	0.25	Unk	1	2
Enterohaemorrhagic <i>E. coli</i> infection	NS	0	0.02	NS	0	0
Typhoid fever	0.88	0.09	0.20	Unk	0	0
Other Salmonellosis	4.89	3.21	3.11	Unk	2	3
Viral hepatitis A	2.66	0.28	0.79	Unk	0	0
Legionellosis	0.52	1.83	2.05	Unk	1	3

Cryptosporiosis	NS	0.06	0.04	NS	0	0
Gíardiase	NS	0.25	0.37	NS	0	0

***Provisional data**

To calculate incidence rate, we used 2017 population

UNK – Unknown; NS – No Surveillance exists

III. Access to drinking water

If possible, please provide segregated data for urban and rural areas in the table below. If this is not possible, please consider reporting by alternative categories available in your country, for example by “non-centralized versus centralized” water supply systems or by population number-based categories. If you do so, please indicate the reported categories by renaming the rows in the table below accordingly.

If data can be reported neither for urban and rural areas nor for alternative categories, please report total (national) values only.

Please comment on the trends or provide any other important information supporting interpretation of the data with regard to access to drinking water.

<i>Percentage of population with access to drinking water</i>	<i>Baseline value (2006)</i>	<i>Value reported in the previous reporting cycle (2014)</i>	<i>Current value (2017)</i>
Total	91 %	95 %	96 %
Urban		100 %	99 %
		94 % (Medium urban)	95 % (Medium urban)
Rural		92 %	92 %

☐ Estimates provided by the WHO/United Nations Children’s Fund (UNICEF) Joint Monitoring Programme (JMP) for Water Supply and Sanitation. *JMP definitions are available at <http://www.wssinfo.org/definitions-methods/watsan-categories>.*

☒ National estimates. *Please specify how “access” is defined and what types of drinking-water supplies are considered in the estimates in your country.*

In particular, please specify if the above percentage on “access to drinking water” refers to access to (tick all applicable):

- ☒ Improved drinking water sources (as per JMP definition)
- ☐ Supplies located on premises
- ☐ Supplies available when needed

- ☐ Supplies that provide drinking water free from faecal contamination

The access is defined as the percentage of the total number housing located in the area of intervention of the water supplier for which the infrastructure of the service distribution systems are available, i.e. is in a distance of less than 20 meters.

IV. Access to sanitation

If possible, please provide segregated data for urban and rural areas in the table below. If this is not possible, please consider reporting by alternative categories available in your country, for example by “non-centralized versus centralized” sanitation systems or by population number-based categories. If you do so, please indicate the reported categories by renaming the rows in the table below accordingly.

If data can be reported neither for urban and rural areas nor for alternative categories, please report total (national) values only.

Please comment on the trends or provide any other important information supporting interpretation of the data with regard to access to sanitation.

Percentage of population with access to sanitation	Baseline value (2006)	Value reported in the previous reporting cycle (2015)	Current value (2017)
Total	77 %	83 %	84 %
Urban		97 %	97 %
		80 % (Medium urban)	82 % (Medium urban)
Rural		70 %	70 %

- ☐ Estimates provided by JMP. JMP definitions are available at <http://www.wssinfo.org/definitions-methods/watsan-categories>.
- ☒ National estimates. Please specify how “access” is defined and what types of sanitation facilities are considered in the estimates in your country.

In particular, please specify if the above percentage on “access to sanitation” refers to access to (tick all applicable):

- ☒ Improved sanitation facilities (as per JMP definition)
- ☐ Facilities not shared with other households
- ☐ Facilities from which excreta is safely disposed in situ or treated off site

The indicator is defined as the percentage of the total number housing located in the area of intervention of the management entity for which the infrastructure of the service collection and drainage systems through fixed networks are available, i.e. is in a distance of less than 20 meters. The increasing trend in the service coverage is in accordance with the national strategic plan PENSAAR 2020, which predicts a target value of 90 % coverage in 2020.

V. Effectiveness of management, protection and use of freshwater resources

1. Water quality

1. On the basis of national systems of water classification, please indicate the percentage of water bodies or the percentage of the volume (preferably) of water⁴ falling under each defined class (e.g., for European Union countries and other countries following the European Union Water Framework Directive⁵ classification, the percentage of surface waters of high, good, moderate, poor and bad ecological status, and the percentage of groundwaters/surface waters of good or poor chemical status; for other countries, in classes I, II, III, etc.).

(a) For European Union countries and other countries following the European Union Water Framework Directive classification

(i) Ecological status of surface water bodies

Percentage of surface water classified as:	Baseline value (2016)	Value reported in the previous reporting cycle (specify year)	Current value (specify year)
High status	2 %		
Good status	51 %		
Moderate status	30 %		
Poor status	11 %		
Bad status	4 %		
Total number of water bodies classified	1792		
Total number of water bodies in the country	1832		

(ii) Chemical status of surface water bodies

Percentage of surface water bodies classified as	Baseline value (2016)	Value reported in the previous reporting cycle (specify year)	Current value (specify year)
Good status	24 %		
Poor status	1 %		
Total number of water bodies classified	462		
Total number of water bodies in the country	1832		

(iii) Status of groundwaters

Percentage of groundwaters classified as	Baseline value (2016)	Value reported in the previous reporting cycle (specify year)	Current value (specify year)
Good quantitative status	96 %		

⁴ Please specify.

⁵ Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy.

<i>Percentage of groundwaters classified as</i>	<i>Baseline value (2016)</i>	<i>Value reported in the previous reporting cycle (specify year)</i>	<i>Current value (specify year)</i>
Good chemical status	88 %		
Poor quantitative status	4 %		
Poor chemical status	12 %		
Total number of groundwater bodies classified	93		
Total number of groundwater bodies in the country	93		

(b) For other countries

(i) Status of surface waters

<i>Percentage of surface water falling under class^a</i>	<i>Baseline value (specify year)</i>	<i>Value reported in the previous reporting cycle (specify year)</i>	<i>Current value (specify year)</i>
I			
II			
III			
IV			
V			
Total number/volume of water bodies classified			
Total number/volume of water bodies in the country			

^a Rename and modify the number of rows to reflect the national classification system.

(ii) Status of groundwaters

<i>Percentage of groundwaters falling under class^a</i>	<i>Baseline value (specify year)</i>	<i>Value reported in the previous reporting cycle (specify year)</i>	<i>Current value (specify year)</i>
I			
II			
III			
IV			
V			
Total number/volume of groundwater bodies classified			
Total number/volume of groundwater bodies in the country			

^a Rename and modify the number of rows to reflect the national classification system.

2. Please provide any other information that will help put into context and aid understanding of the information provided above (e.g., coverage of information provided if not related to all water resources, how the quality of waters affects human health).

2. Water use

3. Please provide information on the water exploitation index at the national and river basin levels for each sector (agriculture, industry, domestic), i.e., the mean annual abstraction of freshwater by sector divided by the mean annual total renewable freshwater resource at the country level, expressed in percentage terms.

<i>Water exploitation index (per river basin)</i>	<i>Baseline value (2016)</i>	<i>Value reported in the previous reporting cycle (specify year)</i>	<i>Current value (specify year)</i>
<i>Minho</i>	3 %		
<i>Lima</i>	4 %		
Total RBD RH 1 – Minho and Lima	4 %		
<i>Cávado</i>	10 %		
<i>Ave</i>	17 %		
<i>Leça</i>	15 %		
Total RBD RH 2 – Cávado, Ave and Leça	13 %		
<i>Douro</i>	8 %		
Total RBD RH 3 – Douro	8 %		
<i>Vouga</i>	8 %		
<i>Mondego</i>	10 %		
<i>Lis</i>	9 %		
Total RBD RH 4 – Vouga, Mondego and Lis	9 %		
<i>Ribeiras do Oeste</i>	38 %		
<i>Tejo</i>	19 %		
Total RBD RH 5 – Tejo and Ribeiras do Oeste	20 %		
<i>Sado</i>	36 %		
<i>Mira</i>	33 %		
Total RBD RH 6 – Sado and Mira	38 %		
<i>Guadiana</i>	25 %		
Total RBD RH 7 – Guadiana	25 %		
<i>Ribeiras do Algarve</i>	27 %		
Total RBD RH8 – Ribeiras do Algarve	27 %		
Total PORTUGAL (mainland)	14 %		

<i>Water exploitation index (per setor of activity)</i>	<i>Value reported in the previous reporting cycle (specify year)</i>	
	<i>Baseline value (2016)</i>	<i>Current value (specify year)</i>
Agriculture	10.2%	
Industry ^a (includes freshwater abstraction for manufacturing industry (consumptive); excludes water for energy cooling)	0.5 %	
Domestic use ^b (refers to public water supply systems and also to individual supply systems)	2.6 %	
Tourism	0.1 %	

^a Please specify whether the figure includes both water abstraction for manufacturing industry and for energy cooling.

^b Please specify whether the figure only refers to public water supply systems or also to individual supply systems (e.g., wells).

Brief note on PT WEI+ calculation methodology:

The Water Exploitation Index+ (WEI+) is defined as the ratio between the total volume of water abstracted and renewable water availability.

Water needs include not only environmental flows but also volumes that must be available in order to meet other requirements such as navigation or international treaties in transboundary watercourses. These volumes, calculated under the WEI+, correspond to 10 % of the flow value of each river basin district. Water return is the volume of water that is returned to the environment after use by the sectors and is available for reuse.

The WEI+ was determined taking into account the following basic data:

(a) Average annual flows in the natural regime, associated to the 50 % percentile and recharge of aquifers, from which the available groundwater resources were estimated;

(b) Water needs, abstracted volumes and returned volumes associated with the sectors (including agriculture, livestock, public supply, industry and tourism).

Please note that it is not possible to calculate water availabilities by activity sector, since the same sources of water may be used in multiple sectors.

Portugal is currently making efforts to improve its methodology for calculating the WEI+ index, so it can be used to better evaluate water stress in the future, which is very important in the context of climate change.

Part four

Water-related disease surveillance and response systems

1. In accordance with the provisions of article 8 of the Protocol:

Has your country established comprehensive water-related disease surveillance and early warning systems according to paragraph 1 (a)?

YES ☒ NO ☐ IN PROGRESS ☐

Has your country prepared comprehensive national or local contingency plans for responses to outbreaks and incidents of water-related disease according to paragraph 1 (b)?

YES ☐ NO ☐ IN PROGRESS ☒

Do relevant public authorities have the necessary capacity to respond to such outbreaks, incidents or risks in accordance with the relevant contingency plan according to paragraph 1 (c)?

YES ☒ NO ☐ IN PROGRESS ☐

2. If yes or in progress, please provide summary information about key elements of the water-related disease surveillance and outbreak response systems (e.g., identification of water-related disease outbreaks and incidents, notification, communication to the public, data management and reporting). Please also provide reference to existing national legislation and/or regulations addressing water-related disease surveillance and outbreak response.

The Law 81/2009 of August, created a surveillance system in public health, related to communicable diseases and other public health risks – SINAVE (National Epidemiological Surveillance System). SINAVE, dematerialises the notifiable communicable diseases and other public health risks, allowing the physician or the laboratory to notify in real-time the occurrence of a notifiable disease to the local public health authority for the implementation of prevention and control measures, limiting the spread of disease and the occurrence of additional cases. Clinical notification is mandatory since 1 January 2015, while laboratory notification is mandatory since 1 January 2017.

This notification-based surveillance system includes waterborne diseases.

Law 81/2009 – <https://dre.pt/pdf1sdip/2009/08/16200/0549105495.pdf>

List of mandatory notifiable diseases - <https://dre.pt/application/file/a/105580101>

Regulation for notification of Communicable Diseases - <https://dre.pt/application/file/73474644>

Methodology of clinical and laboratory surveillance - <https://dre.pt/pdf2sdip/2014/03/059000000/0794707948.pdf3>.

Please describe what actions have been taken in your country in the past three years to improve and/or sustain water-related disease surveillance, early warning systems and contingency plans, as well as to strengthen the capacity of public authorities to respond to water-related disease outbreaks and incidents, in accordance with the provisions of article 8 of the Protocol.

- Portugal has been updating the methodology that was implemented at the local level to deal with notifiable diseases, including waterborne diseases.
- Portugal is implementing a system for detection of epidemiological signals, in order to prevent outbreaks.

On an intersectoral basis, DGS is discussing a contingency plan for food crises.

Part five

Progress achieved in implementing other articles of the Protocol

Please provide a short description of the status of implementation of articles 9 to 14 of the Protocol, as relevant.

Suggested length: up to two pages

The Portuguese Water Law (2005), which transposes the Water Framework Directive (2000) into national law, aims the protection and management of water, as well as to reconcile the different uses with the availabilities, in order to ensure the sustainable use of water resources. Also the National Water Plan (2016) gives particular attention to the sustainable planning and management of water resources. The River Basin Management Plans (2016-2021) results from a comprehensive consideration of the economic, environmental, technical and institutional dimensions in order to ensure the quantitative and qualitative preservation and efficient, sustainable and economically balanced use of water.

The implementation of articles 9 to 14 of the Protocol, particularly in the area of water and sanitation, is partly reflected in national strategic plans, such as the PENSAAR 2020 – "A new strategy for the water supply and sanitation".

The "PENSAAR 2020" defined as one of its main axes the "Optimization and efficient management of resources", and the allocation and efficient use of water resources was defined with an operational objective. With the objective of promoting water efficiency and disseminating the best performances, PENSAAR provides a measure that corresponds to the attribution of a seal to the water suppliers that promote water efficiency. ERSAR has developed a model for the annual allocation to the management entities of the "Efficiency Seals for Water Efficiency". In addition to the relevant information obtained through the water services quality assessment system, it should also take into account additional information that shows the actions taken by the management entity. These actions include operational aspects aimed at rationalizing water use, monitoring and reporting a set of indicators that reflect such rationalization, promotion, and awareness-raising initiatives for that purpose.

In the year 2017, when this evaluation was first applied, no entity has cumulatively fulfilled these requirements, so no seal has been awarded in this area. With the disclosure of the initiative, which allowed management entities to adapt procedures and adopt actions in line with those requirements, it is expected that in future years there may be several entities receiving this seal, something that ERSAR will continue to monitor.

Other important actions, particularly included within articles 9 to 14 of the Protocol include ERSAR close cooperation with the United Nations (for example, publication "On the right track") on these themes and several studies of entities as the OECD or the World Bank. ERSAR has also been involved in the production of a guide to support water service technicians in the implementation of the human right to water and sanitation (Manual of the Human Rights to Safe Drinking Water and Sanitation for Practitioners), which has recently been translated into Portuguese. This is a good support tool for technicians in the Portuguese language sector. In parallel, it has been developing, with European partners regulators a set of works that aim to compare the practices of the various countries. As a future activity, in addition to approving the new Tariff Regulations that establishes, among other criteria, affordable tariffs, including for lower-income households, ERSAR envisages the development of technical projects aimed at training management entities through international publications in this area.

Regarding the information to the public, the National Water Resources Information System (SNIRH), maintained by APA, the National Water Authority, was created in 1995 and is supported by a database prepared to publicly store and disseminate hydro-meteorological and water quality data (surface and groundwater) collected in the water monitoring network. This system also publishes monthly thematic summaries, aiming at the characterization of national water resources, technical reports, cartography on water resources (e.g. flood zones) and technical documents related to these subjects. The official websites of ERSAR, APA, DGS and AdP, and other such as the Water Portal (<https://www.portaldaagua.pt/>), also disseminate relevant information to the public regarding water and health issues.

In terms of transboundary cooperation on water resources, mention should be made about the Convention on Cooperation for the Protection and Sustainable Use of Waters in the

Portuguese-Spanish River Basin Districts, known as the Albufeira Convention, which defines the framework for cooperation between the Parties for the protection of surface and groundwaters and their aquatic and terrestrial ecosystems directly dependent on them and for the sustainable exploitation of the shared river basin districts.

The National Environmental Education Strategy – ENEA 2020, approved in 2017, aims to establish a collaborative, strategic and cohesive commitment to environmental literacy in Portugal, through the development of an inclusive and visionary citizenship that leads to sustainable models of conduct in all dimensions of human activity. It contributes to active citizenship in the field of sustainable development and for the construction of a just, inclusive, low-carbon, rational and resource-efficient society, which combines equity between generations, the quality of life of citizens and economic development.

The “Aqua eXperience Project”, coordinated by ADENE, the Portuguese Energy Agency, and EPAL, one of the main water operators in Portugal, is an education, awareness raiser and action project for water efficiency and water-energy nexus in Portugal. Its mission is to educate, sensitize and mobilize all generations for the valorisation and efficient use of water. Also the “H2Design Project” aims to design new approaches to improve water efficiency in buildings, with a strong innovation component and the full involvement of stakeholders and users of water and to develop strategic scenarios to promote the adoption of more efficient solutions. The “WATTer Skills Project”, also coordinated by ADENE, aims at developing, implementing and proposing a common curricula, qualification framework and accreditation scheme at the European level, for training and skills upgrading of construction and green professionals on water efficiency and water-energy nexus for building construction and retrofit.

In the agricultural sector (the biggest water consumer in Portugal) it is important to mention the “CERTAGRI Project – Water and Energy Efficiency Labelling of the National Productive Sectors for a Circular Economy - Application to the Agri-Food Sector”, supported by the Environmental Fund, which aims the creation of an integrated voluntary labelling system applied to the agri-food sector, focused, among other aspects, on water use along the value chain of an agri-food product.

Part six

Thematic part linked to priority areas of work under the Protocol

1. Water, sanitation and hygiene in institutional settings

1. In the table below, please provide information on the proportion of schools (primary and secondary) and health-care facilities that provide basic water, sanitation and hygiene (WASH) services.

Basic services refer to the following:

(a) *Basic sanitation service: Improved facilities (according to JMP definition), which are sex-separated and usable at the school or health-care facility;*

(b) *Basic drinking water service: Water from an improved source (according to JMP definition) is available at the school or health-care facility;*

(c) *Basic hygiene service: Handwashing facility with water and soap available to students (schools) or patients and health-care providers (health-care facilities).*

If the above definitions/categories do not apply in your country, please report for alternative categories for which data are available. In this case, please indicate the reported categories by renaming the rows in the table below accordingly.

Please indicate the source of data. If data is not available, please put (-).

In Portugal the Decree-Law No. 243/86 requires that access to water and sanitation services be provided in schools, health facilities, prison facilities and, in general, all public buildings. It specifically requires that sanitary facilities possess at least one fixed toilet (or Turkish squat style for men) per floor or per 25 male workers and 15 female workers. It further requires that sanitary facilities must have running water and be connected to a sewerage system or adequate septic tank and be equipped with non-irritant soap and, ideally, automatic hand-dryers or paper towels.

For schools data are available at "Drinking water, sanitation and hygiene in schools: global baseline report 2018. New York: United Nations Children's Fund (UNICEF) and World Health Organization, 2018".

<i>Institutional setting</i>	<i>Current value (2018)</i>
<i>Schools</i>	
Basic sanitation service	100 %
Basic drinking-water service	100 %
Basic hygiene service	100 %
<i>Health-care facilities</i>	
Basic sanitation service	100 %
Basic drinking-water service	100 %
Basic hygiene service	100 %

3. Has the situation of WASH in schools been assessed in your country?
 YES ☒ NO ☐ IN PROGRESS ☐
3. Has the situation of WASH in health-care facilities been assessed in your country?
 YES ☒ NO ☐ IN PROGRESS ☐
4. Do approved policies or programmes include actions (please tick all that apply):
☐ To improve WASH in schools
☐ To improve WASH in health-care facilities
5. If yes, please provide reference to main relevant national policy(ies) or programme(s).

2. Safe management of drinking-water supply

6. Is there a national policy or regulation in your country, which requires implementation of risk-based management, such as WHO water safety plans (WSPs), in drinking water supply?
 YES ☒ NO ☐ IN PROGRESS ☐
7. If yes, please provide reference to relevant national policy(ies) or regulatory documentation.

Decree-Law 306/2007, 27th August, altered by Decree-Law 152/2017, 7th December

8. In the table below, please provide information on the percentage of the population serviced with drinking-water under a WSP.

Please indicate the source of data. If data is not available, please put (-).

The water suppliers provide information to ERSAR on the number of supply zones and population served with drinking water under WSP approach.

Percentage of population	Current value (2017)
Total	31.6 %

3. Equitable access to water and sanitation

9. Has the equity of access to safe drinking-water and sanitation been assessed?

YES ☒ NO ☐ IN PROGRESS ☐

10. Do national policies or programmes include actions to improve equitable access to water and sanitation (please tick all that apply):

- ☒ To reduce geographical disparities
☐ To ensure access for vulnerable and marginalized groups
☒ To keep water and sanitation affordable for all

11. If yes, please provide reference to main relevant national policy(ies) and programme(s).

ERSAR published the Recommendation no.2/2018 (in addition of the tariff Recommendations no.1 and 2/2009) to harmonise pricing schemes and to attain clear and affordable prices. Apart from establishing a recommended tariff structure, it also established social tariffs as a broad mechanism to ensure affordability for households with a lower income. Additionally, it provided guidelines to abolish connection costs to public networks when these are available nearby properties, whose costs are then reflected in the monthly tariffs of the service.

The 2017 State Budget Law No. 42/2016, authorizes the Government to establish a legal regime for the automatic attribution of a social tariff for the provision of water services to lower income consumers, namely to persons benefiting from old-age social pensions, solidarity supplements for the elderly, social integration incomes, unemployment social benefits, family allowance and disability social pensions. Consumers with an annual income under €5,808 are also eligible to benefit from the social tariff.

In addition, the proposal of the Tariff Regulation for Water Supply Services is currently ongoing. This process is linked with the review of other legislation conducted by the government in order to ensure that the new regulation is applicable to all management models and has a legal framework supporting it. This regulation is a cornerstone to ensure the effective sustainability of the sector and the protection of consumers.

Part seven

Information on the person submitting the report

The following report is submitted on behalf of Portugal in accordance with article 7 of the Protocol on Water and Health.

Name of officer responsible for submitting the national report: Ana Barreto Albuquerque

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Name and address of national authority: The water and Waste Services Regulation Authority (ERSAR)

Date: 23 April 2019

Signature:



(Orlando Borges)

The President of the Board of Directors

Submission

1. Parties are required to submit their summary reports to the joint secretariat, using the present template and in accordance with the adopted guidelines on reporting, 210 days before the next session of the Meeting of the Parties. Submission of the reports ahead of this deadline is encouraged, as this will facilitate the preparation of analyses and syntheses to be made available to the Meeting of the Parties.
2. Parties are requested to submit, to the two addresses below, an original signed copy by post and an electronic copy by e-mail. Electronic copies should be available in word-processing software.

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