

Template for summary reports under the Protocol on Water and Health

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 Three.

YES NO IN PROGRESS

If targets have been revised, please provide details here.

2. Were they published and, if so, how?

- Drinking water:

<http://www.msssi.gob.es/profesionales/saludPublica/saludAmbLaboral/calidadAguas/publicaciones.htm>

- Bathing water:

<http://www.msssi.gob.es/profesionales/saludPublica/saludAmbLaboral/calidadAguas/aguasBanno/publicaciones.htm>

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.

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.

- 1) At national level: with Ministry of Agriculture, Food and Environment.
- 2) Coordination between national level and regional level: through 'Comisión de Salud Pública' and 'Ponencia de Salud Pública'.
- 3) Coordination between regional level and local level.

The Spanish Ministry of Health collects information about drinking water through the National Drinking Water Information System (SINAC), it is a system of information relating to supply zones and monitoring of the quality of water intended for human consumption. The water supplier, the town council and the health authority are obliged to provide the SINAC with data in this system.

<https://sinac.msssi.es>

Also, the Spanish Ministry of Health collects information about bathing water (water quality and characteristics of the beach as well as the conditions that can affect the quality of bathing water points) through the National Bathing Water Information System (NÁYADE), regional authority are obliged to provide data in this system.

<https://nayade.msssi.es>

The information regarding swimming pools (water and air quality) is collected in the National Information System called SILOÉ.

<https://siloe.msssi.es>

4. Which existing national and international strategies and legislation were taken into account?

- National legislation:
 - Royal Decree 140/2003 of 7 February by which health criteria for the quality of water intended for human consumption are established.
 - Royal Decree 1341/2007, of 11 October, regarding the quality management of bathing water.
 - Royal Decree 742/2013, of 27 September, by which the technical and health criteria for swimming pools are established.
- European Union legislation:
 - Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption.
 - Directive 2006/7/EC of the European Parliament and of the Council of 15 February 2006 concerning the management of bathing water quality and repealing Directive 76/160/EEC

Please briefly mention the most relevant national and international strategies and instruments that were taken into account when setting targets (only a limited number of references are required under this question; indicatively, five references are considered appropriate, but the number will depend on your national situation).

5. Was cost-benefit analysis of targets set performed, and if so how?

No, because it is considered that the guarantee of water supply and protection of the health of the population should not endorse versus cost-benefit analysis.

Alternatively, please explain to what extent financial implications were taken into account when setting targets.

6. 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?

In the process of elaboration of the national legislation referred in answer 4, through the public hearing procedure through associations such as consumer associations.

7. Provide information on the process by which this report has been prepared, including information on which public authorities had the main responsibilities, which other stakeholders were involved, etc.

Using the information generated in the implementation of current legislation.

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8. Report any particular circumstances that are relevant for understanding the report, e.g., whether there is a federal and/or decentralized decision-making structure, or whether financial constraints are a significant obstacle to implementation (if applicable).

The guarantee of drinking water supply is decentralized, at local level.

9. Please describe whether and, if so, how emerging issues relevant to water and health (e.g., climate change) were taken into account in the process of target setting.

Face natural disasters such as floods from riverbeds the water quality controls are intensify

Part Two

Common indicators¹

I. Quality of the drinking water supplied

A. Context of the data

Please provide general information related to the context of the data provided under sections B and C below:

1. What is the population coverage (in millions or per cent of total national population) of the water supplies reported under this indicator?

88% of census population in Spain in 2014 (population 46.771.341)

86% of municipalities provided data, but we have to take in account that 20% of municipalities without information supplied less than 50 people and those municipalities do not have obligation to notify under Spanish legislation. On the other hand 98.5% of municipalities that supplied more than 5,000 people, provided data.

The rationale of this question is to understand the population coverage of the water quality data reported under sections B and C 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).

2. Do the water supply systems reported here supply the urban population only or both the urban and rural populations?

Both of them, urban and rural populations

3. Specify where the samples/measurements are taken (e.g., treatment plant outlet, distribution system or point of consumption).

At the treatment plant outlet, distribution system and point of consumption.

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

4. In the reports, the standards for compliance assessment signify the national standards. If national standards for reported parameters deviate from the WHO guideline values, provide information on the values (standards) used for calculation.

Annex I (Royal Decree 140/2003 of 7 February by which health criteria for the quality of water intended for human consumption are established).

Parameters and Parametric Values.

A. Microbiological Parameters.

	Parameter	Parametric Value	Notes
1	<i>Escherichia coli</i>	0 CFU/ 100 ml	
2	Enterococci	0 CFU/ 100 ml	
3	<i>Clostridium perfringens</i> (Including spores)	0 CFU/ 100 ml	1 and 2

NOTES:

¹ 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.

- (1) When the determination is positive and the turbidity is greater than 5 NTU, cryptosporidium or other microorganisms or parasites must be investigated in the water ex ETAP or reservoir, if the health authority deems it appropriate.
- (2) Until the 1 of January 2004 Clostridium sulfite reductase could be measured instead of Clostridium perfringens. The conditions described in note 1 and the parametric value will be the same for both.

B.1. Chemical parameters.

	Parameter	Parametric value		Notes
4	Antimony 31/12/2003	5,0 10,0	$\mu\text{g/l}$ $\mu\text{g/l}$	
5	Arsenic 31/12/2003	10 50	$\mu\text{g/l}$ $\mu\text{g/l}$	
6	Benzene Up to 31/12/2003	1,0 -	$\mu\text{g/l}$ $\mu\text{g/l}$	
7	Benzo(α)pyrene	0,010	$\mu\text{g/l}$	
8	Boron	1,0	mg/l	
9	Bromate: From 01/01/2009 From 01/01/2004 to 31/12/2008 Up to 31/12/2003	10 25 -	$\mu\text{g/l}$ $\mu\text{g/l}$ $\mu\text{g/l}$	1
10	Cadmium	5,0	$\mu\text{g/l}$	
11	Cyanide	50	$\mu\text{g/l}$	
12	Copper	2,0	mg/l	
13	Chromium	50	$\mu\text{g/l}$	
14	1,2-Dichloroethane Up to the 31/12/2003	3,0 -	$\mu\text{g/l}$ $\mu\text{g/l}$	
15	Fluoride	1,5	mg/l	
16	Polycyclic aromatic hydrocarbons (PAH) Sum of: fluoranthene Benzo(ghi)perylene Benzo(k)fluoranthene Indeno(1,2,3-cd)pyrene	0,10	$\mu\text{g/l}$ $\mu\text{g/l}$ $\mu\text{g/l}$ $\mu\text{g/l}$ $\mu\text{g/l}$	
17	Mercury	1,0	$\mu\text{g/l}$	
18	Microcystin Up to 31/12/2003	1 -	$\mu\text{g/l}$ $\mu\text{g/l}$	2
19	Nickel Up to 31/12/2003	20 50	$\mu\text{g/l}$ $\mu\text{g/l}$	
20	Nitrate	50	mg/l	3
21	Nitrites Distribution network In the water ex ETAP/reservoir	0,5 0,1	mg/l mg/l	3 and 4
22	Pesticides - Total	0,50	$\mu\text{g/l}$	5 and 6

23	Individual pesticide Except for the case of: Aldrin Dieldrin Heptachlor Heptachlor epoxide	0,10 0,03 0,03 0,03 0,03	$\mu\text{g/l}$ $\mu\text{g/l}$ $\mu\text{g/l}$ $\mu\text{g/l}$ $\mu\text{g/l}$	6
24	Lead From 01/01/2.014 From 01/01/2.004 to 31/12/2013 Up to 31/12/2003	10 25 50	$\mu\text{g/l}$ $\mu\text{g/l}$ $\mu\text{g/l}$	
25	Selenium	10	$\mu\text{g/l}$	

	Parameter	Parametric value	Notes	
26	Trihalomethanes (THMs): Sum of:		7 and 8	
	from 01/01/2.009	100		µg/l
	From 01/01/2004 to 31/12/2008	150		µg/l
	Up to 31/12/2003	-		µg/l
	Bromodichloromethane			µg/l
	Bromoform			µg/l
27	Chloroform		µg/l	
	Dibromochloromethane		µg/l	
	Trichloroethene + Tetrachloroethene:	10	µg/l	
	Up to 31/12/2003	-	µg/l	
	Tetrachloroethene		µg/l	
	Trichloroethene		µg/l	

NOTES:

- (1) It shall be measured when ozone is used in the purification of drinking water and it shall be measured at least in the water ex ETAP.
- (2) It shall be only measured if there is reason to suspect of eutrophication in water from the catchment, microcystin shall be measured in the water ex ETAP or water tower.
- (3) The condition that $[\text{nitrate}]/50 + [\text{nitrite}]/3 < 1$, the square brackets signifying the in mg/l for nitrate (NO₃) and nitrite (NO₂), must be met.
- (4) Necessary only when chloramination is used as a disinfectant.
- (5) The sum of all pesticides defined in Article 2 (10), which are likely to be present in water.
- (6) The Autonomous Communities shall ensure that necessary measures are taken in order to make them available to the health authority and the suppliers of the water supply, the list of plant protection pesticides mainly used in each one of the seasons against agricultural plagues and that they may be present in the water resources likely to be used for the production of water intended for human consumption.
- (7) Shall be measured when chlorine or its derivatives are used in the purification treatment.
If chlorine dioxide is used, chlorites in the water ex ETAP or water tower shall be measured.
- (8) Whenever the levels are above the parametric value, 2,4,6-trichlorofenol or other by-products of the disinfection shall be measured in the water ex ETAP or water tower.

B.2. Chemical Parameters that are monitored according to specifications of the product.

	Parameter	Parametric Value	Notes
28	Acrylamide	0,10	µg/l 1
29	Epichlorohydrin	0,10	µg/l 1
30	Vinyl chloride	0,50	µg/l 1

NOTE

- (1) These parametric values refer to the residual monomer concentration in the water as calculated according to specifications of the maximum release from the corresponding polymer in contact with the water.
The company that commercialises these products shall provide water suppliers and the fitters of the installations within the premises with the documentation that credits the maximum release of the commercial product that is in contact with the water intended for human consumption when it is used according to the specifications of use provided by the manufacturer.

C. Indicator parameters.

	Parameter	Parametric Value	Notes
31	Coliform bacteria	0 CFU/ 100 ml	
32	Colony count 22 °C		
	At the ex ETAP	100 CFU/ 1 ml	
	In the distribution network	No abnormal change	
33	Aluminum	200	µg/l
34	Ammonium	0,50	mg/l
35	Total organic carbon	No abnormal change	mg/l 1
36	Residual combined chlorine	2,0	mg/l 2, 3 and 4
37	Residual free chlorine	1,0	mg/l 2 and 3
38	Chloride	250	mg/l
39	Colour	15	mg/l Pt/Co
40	Conductivity	2.500	µS/cm at 20°C 5
41	Iron	200	µg/l
42	Manganese	50	µg/l
43	Odour	3 at 25°C	Index of dilution

	Parameter	Parametric Value		Notes
44	Oxidisability	5,0	mg O ₂ / l	1
45	pH:			5 and 6
	Minimum parametric value	6,5	pH units	
	Maximum parametric value	9,5	pH units	
46	Taste	3 at 25 °C	Index of dilution	
47	Sodium	200	mg/l	
48	Sulphate	250	mg/l	
49	Turbidity:			
	At the ex ETAP and/or reservoir	1	NTU	
	In the distribution network	5	NTU	

NOTES:

- (1) Total organic carbon shall be measured for supplies of more than 10.000 m³ a day otherwise oxidisability shall be measured.
- (2) The parametric values refer to levels in the distribution network. These parameters could be also analysed in situ.
In a food-production undertaking, this parameter need not be measured in water of the food processes
- (3) It shall be analysed when chlorine or its by-products are used in the water purification treatment.
If chlorine dioxide is used, chlorites shall be measured in the water ex ETAP.
- (4) It shall be measured only when chloramination is used as a disinfectant.
- (5) The water should not be corrosive nor contain incrusting substances. The result to calculate the Index of Langelier should be included between +/- 0.5.
- (6) For a food-production undertaking, the minimum value may be reduced to 4.5 pH units.

D Radioactivity.

	Parameter	Parametric Value		Notes
50	Total indicative dose	0,10	mSv/year	1
51	Tritium	100	Bq/l	
52	Gross alpha activity	0,1	Bq/l	
53	Gross beta activity	1	Bq/l	2

NOTES:

- (1) Excluding tritium, potasio⁴⁰, radon and radon decay products.
- (2) Excluding potasio⁴⁰ and tritium

B. Bacteriological quality

Indicator to be used: WatSan_S2: The percentage of samples that fail to meet the national standard for E. coli and the percentage of samples that fail to meet the national standard for Enterococci.

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

	Baseline value (specify the year)	Value reported in the previous reporting cycle (specify the year)	Current value (specify the year)
WatSan_S2			
E. coli	0,31% (2010)	0,39% (2011)	0,34% (2014)
Enterococci	0,44% (2010)	1,70% (2011)	1,15% (2014)

C. Chemical quality

Indicator to be used: WatSan_S3. All countries shall monitor and report on the percentage of samples that fail to meet the national standard for chemical water quality with regard to the following:

- (a) Fluoride;
- (b) Nitrate and nitrite;²
- (c) Arsenic;
- (d) Lead;
- (e) Iron.

Parties shall also identify up to five additional physico-chemical parameters that are of special concern in their national or local situation (e.g., pesticides).

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

<i>Substance</i>	<i>Baseline value (specify the year)</i>	<i>Value reported in the previous reporting cycle (specify the year)</i>	<i>Current value (specify the year)</i>
Fluoride	1,87% (2010)	2,55 % (2011)	0,65% (2014)
Nitrate	2,99% (2010)	2,58 % (2011)	2,24% (2014)
Nitrite	0,04% (2010)	0,06 % (2011)	0,07% (2014)
Arsenic	0,96% (2010)	1,46 % (2011)	0,94% (2014)
Lead	0,21% (2010)	0,17 % (2011)	0,89% (2014)
Iron	0,86% (2010)	0,84 % (2011)	0,68% (2014)
Additional physico-chemical parameter 1: THMs _____	0,55% (2010)	0,55% (2011)	1,04% (2014)
Additional physico-chemical parameter 2: _____			
Additional physico-chemical parameter 3: _____			
Additional physico-chemical parameter 4: _____			
Additional physico-chemical parameter 5: _____			

² As defined in the WHO Guidelines for drinking-water quality.

II. Reduction of the scale of outbreaks and incidence of infectious diseases potentially related to water

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

(a) For reporting outbreaks, please indicate if the numbers reported are related to all exposure routes or only related to water (i.e., for which there is epidemiological or microbiological evidence for water to have facilitated infection);

(b) For reporting incidents:

(i) Please report cases per 10,000 persons;

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

(iii) If possible, please distinguish between autochthonous and imported cases.

Please consider extending the list of water-related diseases to cover other relevant pathogens (e.g., enteric viruses, *Cryptosporidium*, *Giardia*, *Legionella*).

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

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

	Incidence			Number of outbreaks		
	Baseline (specify the year)	Value reported in the previous reporting cycle (specify the year)	Current value (specify the year)	Baseline (specify the year)	Value reported in the previous reporting cycle (specify the year)	Current value (specify the year)
Cholera	-	0 (2010)	1 event imported from India (2013)	-	0 (2010)	0 (2013)
Bacillary dysentery (shigellosis)	0,49 events/100.000 inhabitant (2009)	0,34 events/100.000 inhabitant (2010)	0,4 events/100.000 inhabitant (2013)	5 (2009)	5 (2010)	8 (2013) (not related to water)
Enterohaemorrhagic E. coli.	-	0 (2010)	0 (2013)	-	0 (2010)	0 (2013)
Viral hepatitis A	5,94 events/100.000 inhabitant (2009)	2,23 events/100.000 inhabitant (2010)	1,42 events/100.000 inhabitant (2013)	97 (2009)	74 (2010)	56 (2013) (2 related to water and imported from Morocco)
Typhoid fever	0,16 events/100.000 inhabitant (2009)	0,15 events/100.000 inhabitant (2010)	0,12 events/100.000 inhabitant (2013)	3 (2009)	1 (2010)	0 (2013)

III. Access to drinking water

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

Percentage of population with access to drinking water	Baseline value (specify the year)	Value reported in the previous reporting cycle (specify the year)	Current value (specify the year)
Total*	99.99% (2010)	99.99% (2011)	99.99% (2013)
Urban*	100% (2010)	100% (2011)	100% (2013)
Rural*	99% (2010)	99% (2011)	99% (2013)

(*) Data estimated

Please specify if the above data is based on national estimates or estimates provided by the WHO/United Nations Children's Fund (UNICEF) Joint Monitoring Programme (JMP) for Water Supply and Sanitation.

If national estimates are provided, please specify how access is defined and estimated in your country.

JMP definitions and categories are available at <http://www.wssinfo.org/definitions-methods/watsan-categories>.

IV. Access to sanitation

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

Percentage of population with access to sanitation	Baseline value (specify the year)	Value reported in the previous reporting cycle (specify the year)	Current value (specify the year)
Total			
Urban			
Rural			

Please specify if the above data is based on national estimates or estimates provided by JMP for Water Supply and Sanitation.

If national estimates are provided, please specify how access is defined and estimated in your country.

JMP definitions are available at <http://www.wssinfo.org/definitions-methods/watsan-categories>.

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

Water quality

On the basis of national systems of water classification, the percentage of the number of water bodies or the percentage of the volume (preferably) of water³ falling under each defined class (e.g., in classes I, II, III, etc. for non-EU countries; for EU countries, 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 non-European Union Countries

Status of surface waters

<i>Percentage of surface water falling under class^a</i>	<i>Baseline value (specify the year)</i>	<i>Value reported in the previous reporting cycle (specify the year)</i>	<i>Current value (specify the 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.

Status of groundwaters

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

³ Please specify.

<i>Percentage of groundwaters falling under class^a</i>	<i>Baseline value (specify the year)</i>	<i>Value reported in the previous reporting cycle (specify the year)</i>	<i>Current value (specify the year)</i>
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.

For European Union countries

Ecological status of surface water bodies

<i>Percentage of surface water classified as:</i>	<i>Baseline value (2014)</i>	<i>Current value (2015)</i>
High status	425	534
Good status	1655	1375
Moderate status	1050	1213
Poor status	305	289
Bad status	119	139
Total number/volume of water bodies classified	4028	4163
Total number/volume of water bodies in the country		

Chemical status of surface water bodies

<i>Percentage of surface water bodies classified as</i>	<i>Baseline value (specify the year)</i>	<i>Current value (specify the year)</i>
Good status	2954	4299
Poor status	274	272
Total number/volume of water bodies classified	5125	5162
Total number/volume of water bodies in the country		

Status of groundwaters

<i>Percentage of groundwaters classified as</i>	<i>Baseline value (specify the year)</i>	<i>Current value (specify the year)</i>
Good quantitative status	524	520
Good chemical status	488	459
Poor quantitative status	191	172
Poor chemical status	234	233
Total number/volume of groundwater bodies classified	725	761
Total number/volume of groundwater bodies in the country		

Water use

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</i>	<i>Baseline value (specify the year)</i>	<i>Value reported in the previous reporting cycle (specify the year)</i>	<i>Current value (specify the year)</i>
Agriculture			
Industry ^a			
Domestic use ^b			

^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 individual supply systems (e.g., wells).

Part Three

Targets and target dates set and assessment of progress

For countries that have set 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 the relevant target areas (e.g., baseline conditions, provisional targets, etc.)

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:

- Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

The target is that the drinking water supplied is safe and clean and not content any microorganism, parasite or substance in a quantity or concentration that may pose a risk to human health. In addition to meeting the specified in the regulations.

- Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered. •

Legal measures:

- Royal Decree 140/2003 of 7 February by which health criteria for the quality of water intended for human consumption are established.
- Order SCO 1591/2005 of 30 May on the national information system of drinking water.
- Order SSI / 304/2013 of 19 February, on substances for the treatment of water intended for the production of water for human consumption.

<http://www.msssi.gob.es/profesionales/saludPublica/saludAmbLaboral/calidadAguas/legNacional.htm>

The difficulties were encountered in supplies in rural areas, ie, which serve populations of less than 5,000 inhabitants.

3. Assess the progress achieved towards the target.
 - Routine use by 7,000 professional users of the information system to notify the quality of drinking water and the characteristics of the relevant supplies to more than 88% of the Spanish population through the Internet (<http://sinac.msssi.es>) over the past 10 years.
 - Increased information collected on Quality of drinking water and the characteristics of supplies in the last 10 years.
 - Increased compliance with the sampling frequency as outlined in legislation, in recent years.
 - Keeping drinking water compliance with current legislation above 99%, in recent years.
 - Take corrective measures in shorter time periods after detection of incidents, in recent years.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

Since 2012 we are working on the development of a software tool to facilitate the development of water safety plan for all Spanish supplies. This tool will contribute to better risk management in supplies: early detection, take corrective measures and establishment of preventive measures
5. If you have not set a target in this area, please explain why.

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. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

Epidemiological surveillance of waterborne outbreaks in Spain is done through the National Epidemiological Surveillance Network (RENAVE). The Autonomous Communities (Regional level) notifies the National Epidemiology Center outbreaks and epidemic situations of any etiology and transmission mechanism occurring in its territory.

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

Royal Decree 2210/1995, of 28 December, the National Epidemiological Surveillance Network is created.

5. Assess the progress achieved towards the target.

- It has been observed a decrease in the number of reported during the past at the expense of drinking water outbreaks, although there are a large number of outbreaks in which the vehicle or mechanism of infection is unknown.
 - In Spain, as in other developed countries, over the years we can see a decrease in reporting waterborne outbreaks of bacterial origin and an increase in the declaration of outbreaks caused by viruses and parasites, probably due to the improvement in laboratory diagnosis and notification, along with other factors such as resistance of these pathogens (norovirus and some protozoa, mainly) to the chemical processes of drinking water disinfection.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
 5. If you have not set a target in this area, please explain why.

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

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

The drinking water supply should be sufficient for sanitary needs of the population and development activity in the area of supply, the minimum amount should be 100 liters per capita per day.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

Royal Decree 140/2003 of 7 February by which health criteria for the quality of water intended for human consumption are established.
3. Assess the progress achieved towards the target.
 - Official data in Spain show that 99.99% of the population has access to drinking water with an average budget of 130-140 liters per inhabitant and day. Although it is available comprehensive information on the quality of drinking water supplied to 88% of the population.
 - It has achieved a decline in consumption following campaigns savings of drinking water consumption in homes due to repeated drought in some regions.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

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

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

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. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

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

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

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

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. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
 - Improve management supplies from catchment, treatment plant, storage and distribution of water,
 - Improve the quality control of drinking water.
 - Improve the transmission of information to citizens.

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
 - Royal Decree 140/2003 of 7 February by which health criteria for the quality of water intended for human consumption are established.
 - Order SCO 1591/2005 of 30 May on the national information system of drinking water.
http://www.msssi.gob.es/profesionales/saludPublica/saludAmbLaboral/calidadAguas/sistemas_informacion.htm

2. Assess the progress achieved towards the target.
 - Routine use by 7,000 professional users of the information system to notify the quality of drinking water and the characteristics of the relevant supplies to more than 88% of the Spanish population through the Internet (<http://sinac.msssi.es>) over the past 10 years.
 - Increased information collected on Quality of drinking water and the characteristics of supplies in the last 10 years.
 - Increased compliance with the sampling frequency as outlined in legislation, in recent years.
 - Keeping drinking water compliance with current legislation above 99%, in recent years.
 - Take corrective measures in shorter time periods after detection of incidents, in recent years.

3. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

Since 2012 we are working on the development of a software tool to facilitate the development of water safety plan for all Spanish supplies. This tool will contribute to better risk management in supplies: early detection, take corrective measures and establishment of preventive measures

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

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

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

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

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

X. Occurrence of discharges of untreated storm water overflows from wastewater collection systems to waters within the scope of the Protocol (art. 6, para. 2 (g) (ii))

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

XI. Quality of discharges of wastewater from wastewater treatment installations to waters within the scope of the Protocol (art. 6, para. 2 (h))

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

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

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

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

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

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

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

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

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

Given the importance that involves the use of bathing water areas in human health, it is necessary to establish national health quality standards. These criteria apply to bathing water and where there is not an express prohibition of bathing or recommendation to refrain from it permanently.

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target,

having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

- Royal Decree 1341/2007, of 11 October, regarding the quality management of bathing water.
 - Establishment of Information System of bathing water called NÁYADE:
<http://nayade.msssi.es>
3. Assess the progress achieved towards the target.
 - In the last 20 years there has been an improvement in bathing water quality (maritime and continental).
 - Improved methods of analysis of the control parameters.
 - Improved reporting information. Information is available about water quality and characteristics of the beach as well as the conditions that can affect the quality of more than 2,000 bathing water points.
 - Improved access of information to citizens through NÁYADE.
 - Promotion of bathing water areas, health classification of bathing water is essential for classification of beaches for blue flags. www.adeac.es.
 4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
 5. If you have not set a target in this area, please explain why.

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

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

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. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

Establish basic health technical criteria of water and air quality of swimming pools in order to protect the health of users of potential physical, chemical or microbiological risks from the use of the pools.

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

- *Royal Decree 742/2013, of 27 September, by which the technical and health criteria for swimming pools are established.*
- *Development of an information system for collecting data swimming pools and water quality and air (indoor) thereof, called SILOÉ.*

3. Assess the progress achieved towards the target.

Improved management of health risks of use of the swimming pools.

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

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

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

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

3. Assess the progress achieved towards the target.

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

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

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. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

XX. Additional national or local specific targets

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

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

Part Four

Overall evaluation of progress achieved in implementing the Protocol

In this part of the summary report, Parties shall provide an analysis and synthesis of the status of implementation of the Protocol. Such an overall evaluation should not only be based on the issues touched upon in the previous parts, but should also include, as far as possible, a succinct overview of implementation of activities related to, for example:

- (a) Response systems (article 8);
- (b) Public awareness, education, training, research and development and information (article 9);
- (c) Public information (article 10);
- (d) International cooperation (article 11);
- (e) Joint and coordinated international action (article 12);
- (f) Cooperation in relation to transboundary waters (article 13);
- (g) International support for national action (article 14).

This analysis or synthesis should provide a succinct overview of the status of and the trends and threats with regard to waters within the scope of the Protocol sufficient to inform decision makers, rather than an exhaustive assessment of these issues. It should provide an important basis for planning and decision-making as well as for the revision of the targets set, as needed.

Suggested length: up to 3 pages

Part Five

Information on the person submitting the report

The following report is submitted on behalf of SPAIN
[name of the Party or the Signatory] in accordance with article 7 of the Protocol on Water and Health.

Name of officer responsible for submitting the national report: [Micaela Garcia Tejedor](#)

E-mail: sgsasl@msssi.es

Telephone number:

Name and address of national authority: [Ministry of Health of Spain](#)

[Address: Paseo del Prado 18-20. 28071 Madrid. Spain](#)

Signature:

Date: [14th April 2016](#)

Submission

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, by **18 April 2016**. 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 third session of the Meeting of the Parties.

Parties are requested to submit, to the two addresses below, an original signed copy by post and an electronic copy either on a CD-ROM or by e-mail. Electronic copies should be available in word-processing software, and any graphic elements should be provided in separate files.

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