
German national summary report in accordance with article 7 of the Protocol on Water and Health – fifth reporting cycle

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

Implementation of the Protocol during the reporting period faced no special challenges.

During the reporting period, targets set in 2011 have been achieved.

New targets have been set in 2021, and therefore achievements for their implementation during the reporting period remain limited.

Due to wide access to drinking water and sanitation in Germany, no further important achievements can be reported.

Germany, together with Serbia, is leading the Protocol activity on small-scale water supplies and sanitation, and has been supporting related activities throughout the reporting period, as also described in part 5 of this report.

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 ☐

Revised targets were submitted to the secretariat of the Protocol on Water and Health on 15 July 2021. Revised targets were set in the following target area:

- The quality of the drinking water supplied, taking into account the Guidelines for drinking-water quality of the World Health Organization*
- Reduction of the scale of outbreaks and incidents of water-related disease*
- The area of territory, or the population sizes or proportions, which should be served by collective systems for the supply of drinking water or where the supply of drinking water by other means should be improved*
- The levels of performance to be achieved by such collective systems and by such other means of water supply and sanitation respectively*

- *The application of recognized good practice to the management of water supply and sanitation, including the protection of waters used as sources for drinking water*
- *The disposal or reuse of sewage sludge from collective systems of sanitation or other sanitation installations and the quality of wastewater used for irrigation purposes, taking into account the Guidelines for the safe use of wastewater and excreta in agriculture and aquaculture of the World Health Organization and the United Nations Environment Programme*
- *The application of recognized good practice to the management of enclosed waters generally available for bathing*
- *The frequency of the publication of information on the quality of the drinking water supplied and of other waters relevant to the targets in this paragraph in the intervals between the publication of information under article 7 (2)*
- *Additional target area: Improving communication and education of the general public with respect to drinking water as well as swimming and bathing pool water with a special focus on child health.*

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

They were communicated to the secretariat on 15 July 2021, and published on the UNECE Protocol's homepage (in English and German). The webpage of the German Environment Agency (UBA) has a sub-page (<https://www.umweltbundesamt.de/en/topics/water/drinking-water/protocol-on-water-health>) which contains a link to the targets under the Protocol on Water and Health.

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.

Target setting in Germany was coordinated between the Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV), and the Federal Ministry of Health (BMG) as well as the UBA and the Robert Koch Institute (RKI). The responsible 16 German federal states' authorities/ministries had participated in the target setting process. Already established working and cooperation structures with regard to water management and health issues had been used. Before submitting the revised targets to the Secretariat of the Protocol on Water and Health, they were coordinated nationally with the federal states via the German Working Group on water issues of the federal states and the Federal Government (LAWA) and the federal states' working Group on environmental health protection (LAUG). Amendments were gathered and a final consultation had taken place.

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.

No programme of measures or action plan to support implementation of the targets was developed as this was deemed unnecessary given the number and the nature of the targets set.

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?

Experience has shown that it is challenging to create public interest and therefore public participation in an area where there is limited potential for setting major national targets in

view of the already achieved high connection and protection levels in water supply and sanitation. Therefore, no additional participation of the public concerning the revised targets set in accordance with the Protocol on Water and Health was conducted within this process.

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.

For the main stakeholders involved, see also answer to question 3. above.

This report has been prepared based on existing information in the BMUV and the BMG, as well as the UBA and the RKI as principal government agencies working under the umbrella of both ministries. Other stakeholders have not been involved.

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.

Descriptions of targets set under the Protocol are contained as submitted to the Secretariat in July 2021 (https://unece.org/sites/default/files/2021-07/Germany_Revision%20of%20targets_Protocol%20on%20Water%20and%20Health_15%20July%202021.pdf). For description of the baseline conditions in the target setting areas, we refer to the respective sections of this target setting paper of 2021.

As the targets have only been set in 2021, progress towards their achievement is respectively limited to date.

No additional particular circumstances are necessary for understanding this report.

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.

National target 1: Improving safe drinking water quality from domestic distribution systems by means of information campaigns

Target date: 31 December 2022

Baseline conditions: Please refer to target setting paper of 15.07.2021, page 3.

National target 2: Expanding the risk-based approach in drinking water supply

Target date: 28 February 2023

Baseline conditions: Please refer to target setting paper of 15.07.2021, page 5.

National target 3: Improving the data on public drinking water taps in public spaces and drafting of monitoring recommendations

Target date: 31 December 2021 (data evaluation); 31 December 2022 (monitoring recommendations)

Baseline conditions: Please refer to target setting paper of 15.07.2021, page 7.

National target 4: Improving the EU-wide and national regulatory basis for hygiene requirements for materials and products in contact with drinking water

Target date: 31 December 2021 for elastomers / thermoplastic elastomers

Baseline conditions: Please refer to target setting paper of 15.07.2021, page 8.

National target 5: Making drinking water provisions easier to understand

Target date: 28 February 2023

Baseline conditions: Please refer to target setting paper of 15.07.2021, page 10.

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).

National target 1: Please refer to target setting paper of 15.07.2021, page 4.

National target 2: Please refer to target setting paper of 15.07.2021, page 6.

National target 3: Please refer to target setting paper of 15.07.2021, page 7.

National target 4: Please refer to target setting paper of 15.07.2021, page 9.

National target 5: Please refer to target setting paper of 15.07.2021, page 10.

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

National target 1: The UBA brochure "*Trink was – Trinkwasser aus dem Hahn*."

Gesundheitliche Aspekte der Trinkwasser-Installation" ("Have a drink – drinking water from the tap - health aspects of the domestic distribution system") addressing consumers and building proprietors was updated (downloadable from <https://www.umweltbundesamt.de/en/publikationen/ratgeber-trink-was-trinkwasser-aus-hahn>). Additionally an FAQ-document was published (downloadable from <https://www.umweltbundesamt.de/en/topics/water/drinking-water/distributing-drinking-water/evaluation-criteria-guidelines>), which contains answers to typical questions relating to materials in contact with drinking water.

National targets 2 and 5: During the reporting period, BMG together with UBA worked on the necessary changes to national legislation in coordination with representatives of the federal states as well as associations of water suppliers. For this purpose, online meetings were held, and draft changes coordinated in order to enable timely transposition.

National target 3: Data on public drinking water taps in public spaces was gathered and evaluated. The data gathering showed that there is not yet a unified documentation of public drinking water taps in public spaces, and that the number of such installations is expected to increase in the future. Recommendations for local authorities on the surveillance of public drinking water taps in public spaces were published in 2021 and are available at

https://www.umweltbundesamt.de/sites/default/files/medien/5620/dokumente/blag_empfehlungen_zur_ueberwachung_von_trinkwasserbrunnen.pdf. In parallel, a technical standard for such installations, addressing operators of public drinking water taps, was developed by the German Technical and Scientific Association for Gas and Water (DVGW e.V.).

National target 4:

Requirements for elastomers/thermoplastic elastomers were established and notified in accordance with Directive (EU) 2015/1535 (2021/596/D) and will be published in March 2022 (downloadable from <https://www.umweltbundesamt.de/dokument/bewertungsgrundlage-fuer-kunststoffe-andere>). A link to an English translation can be provided at a later stage.

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 contribute to achieving SDG 6, particularly target 6.1 to achieve equitable access to safe and affordable drinking water for all, including those served by small and individual water supplies. The targets are hereby in line with the efforts to fulfill European commitments as represented by the European Drinking Water Directive (Directive (EU) 2020/2184).

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. 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.

National target 6: Strengthening and continuous adaptation of surveillance and primary prevention of Legionellosis, especially amid changes of climatic conditions and population ageing in Germany, to achieve a long-term reduction in incidence.

Target date: no target date

Baseline conditions: Please refer to target setting paper of 15.07.2021, page 11.

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).

Please refer to target setting paper of 15.07.2021, page 12.

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

(a) The BMG continues to support the Conciliary Laboratory for Legionella. Furthermore, Germany fully participates in the European Legionnaires' Disease Surveillance Network (ELDS-NET) since October 2012, located at ECDC in Stockholm. The aim of the network is the early detection of clusters of travel-associated Legionnaires' disease (TALD) in Europe in order to identify and eliminate sources of infection.

(b) The BMG has funded a study (conducted from 2016-2020) undertaken by the Robert Koch Institute and the UBA with one of the aims to better understand host-related, agent-related, water-related and water installation related risk factors for the acquisition of Legionnaires' disease, and the eventual use of the results to tailor prevention programs. First results are published here: <https://journals.plos.org/plosone/article/comments?id=10.1371/journal.pone.0241724>.

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 tasks of the Conciliary Laboratory for Legionella encompass the diagnosis of Legionella diseases and therefore help the early detection and containment of outbreaks of Legionella disease which is compatible with SDG goals 3 and 6 of the 2030 Sustainable Development Agenda. In addition the results of above study should assist in tailoring prevention programmes⁵. 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. 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.

National target 7a: Improving the data on the quality of drinking water supplied by decentralised small-scale waterworks and small-scale supplies for domestic uses

Target date: 31 October 2022

Baseline conditions: Please refer to target setting paper of 15.07.2021, page 13.

National target 7b: Using the Protocol documents on equitable access to water supply and sanitation

Target date: 31 October 2022

Baseline conditions: Please refer to target setting paper of 15.07.2021, page 13.

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).

Please refer to target setting paper of 15.07.2021, page 14.

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

During the reporting period, activities were undertaken to improve equitable access to drinking-water through supporting public drinking water taps in public spaces (see also national target 3 above). Furthermore, a German translation of the document 'Guidance Note on the Development of Action Plans to Ensure Equitable Access to Water and Sanitation' was drafted which will still need to undergo editing and finalisation. A German translation of the document "The Equitable Access Score-Card" has been commissioned in January 2022.

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 contribute to achieving SDG 6, particularly target 6.1 to achieve equitable access to safe and affordable drinking water for all, and 6.2 to achieve equitable sanitation and hygiene for all.

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. 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.
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).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

In 2016, 100 % of the German population were connected to collective sanitation systems or other means of wastewater treatment. 97.1 % of the German population are connected to the public sewage system (as of 2016).

For further information on the baseline analysis, please refer to the target setting paper of 15.07.2021, page 15.

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.

National target 8: To describe and subsequently continuously improve drinking water quality in small water supply zones

Target date: Continuous improvement. It is not yet possible to specify a target date.

Baseline conditions: Please refer to target setting paper of 15.07.2021, page 16.

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).

Please refer to target setting paper of 15.07.2021, page 19.

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

The report on drinking-water quality from small and medium supply zones for the years 2017-2019 is available online at https://www.umweltbundesamt.de/sites/default/files/medien/5620/dokumente/trinkwv_bericht_2017_2019_kleine_mittlere_wvg.pdf. Due to highly satisfying baseline conditions with high performance levels with respect to the performance indicator set (drinking-water quality) further progress can only result in marginal improvements.

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 contributes to collecting and publishing data on SDG 6, particularly on target 6.1 (access to safely managed drinking water services).

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))

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.

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).

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

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

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

In view of the high level of performance achieved by sanitation systems in Germany, especially with regard to wastewater collection and treatment, no target has been set.

For further information on the baseline analysis, please refer to the target setting paper of 15.07.2021, page 16.

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.

National target 9: Increasing the number of water suppliers operating a technical safety management

Target date: Continuous target, therefore no target date can be set

Baseline conditions: Please refer to target setting paper of 15.07.2021, page 20.

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).

Please refer to target setting paper of 15.07.2021, page 22.

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

At the time of reporting, 443 companies were certified for the water sector (<https://www.technisches-sicherheitsmanagement.de/tsm/best-practice>, status 13 January 2022), which is a slight increase compared to the previous reporting in 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 target contributes to SDG 6, particularly target 6.1, by promoting safe water supply.

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))

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.

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).

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

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

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

In view of the high standards regulated for the management of sanitation, no target has been set.

For further information on the baseline analysis, please refer to the target setting paper of 15.07.2021, page 20.

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.

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).

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

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

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

In view of the sufficient legal requirements and ongoing implementation processes, no target has been set.

For further information on the baseline analysis, please refer to the target setting paper of 15.07.2021, page 22.

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.
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).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

In view of the sufficient legal requirements and ongoing implementation processes, no target has been set.

For further information on the baseline analysis, please refer to the target setting paper of 15.07.2021, page 22.

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.
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).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

In view of the standard of quality achieved, no target has been set.

For further information on the baseline analysis, please refer to the target setting paper of 15.07.2021, page 24.

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.

National target 10: Implementing the national Sewage Sludge Ordinance (AbfKlärV), introduction of mandatory phosphorus recovery

Target date: From 1 January 2029, or 1 January 2032 respectively (requirement to recover phosphorus from phosphorus-containing sewage sludge and sewage sludge incineration ashes in case of a phosphorus level of 20 grammes or more per kilogramme dry matter. Soil application of sewage sludge, independent of its phosphorus level, will only be possible from treatment plants with an authorised capacity of serving of up to 100,000 inhabitants (until 2032) or up to 50,000 inhabitants (from 2032))

Baseline conditions: Please refer to target setting paper of 15.07.2021, page 25.

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).

Federal-Länder activities for the sustainable use of plant nutrients from wastewater, sewage sludge and other substances (closed substance cycle) are an ongoing task.

The Federal and Länder Governments support such activities through research and development projects as well as through investment projects to demonstrate the practical suitability of existing nutrient recovery techniques.

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

See answer above.

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 contributes to SDG 6, particularly targets 6.3 and 6.5, by dealing with sewage sludge in a way other than its use as fertiliser on the fields.

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))

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.

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).

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

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

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

In Germany, treated wastewater is so far only used for direct irrigation purposes in few exceptional cases.

For further information on the baseline analysis, please refer to the target setting paper of 15.07.2021, page 27.

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.

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).

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

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

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

Reference is made to the comments in target setting paper of 15.07.2021 under Article 6 (2) (f), page 20..

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.

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).

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

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

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

No target has been set, due to the high percentage of German bathing waters in compliance with the provisions in the EC Bathing Water Directive. In 2020, the binding EU limits were met by 96,1 % of designated coastal bathing waters and 96,1 % of designated inland bathing

waters. For further information on the baseline analysis, please refer to the target setting paper of 15.07.2021, page 21.

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.
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).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

Due to the existing sufficient EU and national legal provisions and due to the fact that Germany is in compliance with them, no target has been set.

For further information on the baseline analysis, please refer to the target setting paper of 15.07.2021, page 28.

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.

National target 11: To update the technical regulations on swimming pool water

Target date: 31 December 2021

Baseline conditions: Please refer to target setting paper of 15.07.2021, page 30.

Target 11 has just been met right within the proposed target timeframe. In December 2021, the national standard DIN 19643 in its parts 1 to 4 has been revised thoroughly by an expert committee under participation of UBA. However, this updated version is currently under editorial revision and will be published for public commenting and review within the next months. Publication of the finalized standard is expected before the end of 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).

Please refer to target setting paper of 15.07.2021, page 30.

UBA has been actively involved in the revision process from its very beginning as a member of the expert committee and its sub-committees or working groups concerned with special issues.

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

As a national standard, DIN 19643 gives advice for best practise in swimming pool water treatment, but it remains as a standard of recommending character and is not yet legally compulsory. However, on a federal state level a *Baths Hygiene Ordinance* has been established in the federal state of Schleswig-Holstein in 2019 which is regarded to act as a prototype of a national comprehensive ordinance to be developed in the future and that, consequently, would establish mandatory character and legal certainty to swimming and bathing pool water hygiene.

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 contributes to achieving SDG 3, particularly combating water-borne diseases and other communicable diseases, by increasing the safety of swimming pool water.

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. 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.
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).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

No target has been set in view of the statutory provisions already in force. For further information on the baseline analysis, please refer to the target setting paper of 15.07.2021, page 32.

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.

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).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

As the existing systems are effective, no target has been set.

For further information on the baseline analysis, please refer to the target setting paper of 15.07.2021, page 34.

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.

National target 12: Improving communication and education of the general public with respect to drinking water as well as swimming and bathing pool water with a special focus on child health.

Target date: unspecified

Baseline conditions: Please refer to target setting paper of 15.07.2021, page 35.

National target 13: Improving the data on the quality of drinking water from centralised small waterworks

Target date: 30 June 2022

Baseline conditions: Please refer to target setting paper of 15.07.2021, page 38.

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).

Please refer to target setting paper of 15.07.2021, page 36.

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

In cooperation with WHO EURO, three videos on WSP were developed which are available online in English and Russian:

- Water Safety Plan

<https://youtu.be/m9o-XyI9uIE>

https://youtu.be/nWy_CTf92U

- Hazard analysis

<https://youtu.be/P19srw2LtGI>

<https://youtu.be/300SbOvqNg4>

- Risk assessment

<https://youtu.be/-XKyWJdudio>

<https://youtu.be/GGaVcUnS-IQ>

The report on drinking-water quality from small and medium supply zones for the years 2017-2019 is available online at https://www.umweltbundesamt.de/sites/default/files/medien/5620/dokumente/trinkwv_bericht_2017_2019_kleine_mittlere_wvg.pdf.

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 contribute to collecting and publishing data on SDG 6, particularly on target 6.1 (access to safely managed drinking water services).

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

Part three

Common indicators¹

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).

Water supplies covered under sections 2 and 3 provided services to 73.1 million persons (88% of the population of Germany) in 2019.

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.

The limit values must comply with the German Drinking Water Ordinance at the taps that serve to obtain the drinking water. That means the samples have usually to be taken at the point of consumption. Chemical parameters for which the concentration does not increase in the distribution network or in the domestic distribution may be monitored at the treatment plant outlet and in the distribution system.

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

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.

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.²

The national standards for compliance signify the requirements by the German Drinking water ordinance, for which the European standards set in the EU Drinking water directive have to be considered. The WHO guideline values shall be treated as recommendatory, in particular where no European or national standards exist.

Parameter	WHO guideline value (GV)	German drinking water ordinance value
Enterococci	No health-based GV established	0/100ml
Nitrite	3 mg/l (short-term exposure)	0.5 mg/l 0.1 mg/l not to be exceeded at the water works outlet
Coliforms	Thermotolerant coliform bacteria 0/100ml	Coliforms 0/100ml
C. perfringens	No health-based GV established	0/100ml
Iron	No health-based GV established	0.2 mg/l
Total pesticides	No health-based GV established	0.0005 mg/l
THM	The sum of the ratio of the concentration of each to its respective guideline value should not exceed 1	Total THM: 0.05 mg/l
Nickel	0.07 mg/l	0.02 mg/l

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.

Segregated data for urban and rural areas can not be provided. Data on compliance in small public water supplies for 2019 is currently being compiled.

² 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/.

<i>Parameter</i>	<i>Area/category</i>	<i>Baseline value (2005)</i>	<i>Value reported in the previous reporting cycle (2016)</i>	<i>Current value (2019)</i>
<i>E. coli</i>	Total	0.2 %	0.04 %	0.02%
	Urban			
	Rural			
Additional parameter 1: Enterococci	Total	0.4 %	0.14 %	0.13%
	Urban			
	Rural			
Additional parameter 2: Coliforms	Total		1.35 %	0.88%
	Urban			
	Rural			
Additional parameter 3: <i>C. perfringens</i>	Total		0.05 %	0.02%
	Urban			
	Rural			

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.

Segregated data for urban and rural areas can not be provided. Data on compliance in small public water supplies for 2019 is currently being compiled.

<i>Parameter</i>	<i>Area/category</i>	<i>Baseline value (2005)</i>	<i>Value reported in the previous reporting cycle (2016)</i>	<i>Current value (2019)</i>
Arsenic	Total	water works: 0.1 % consumers' taps: 0.1 %	0.02%	0.08 %
	Urban			
	Rural			
Fluoride	Total	water works and distribution: 0.0 % consumers' taps: 0.0 %	0 %	0 %
	Urban			
	Rural			
Lead	Total	water works and distribution: 0.0 % consumers' taps: 2.1 %	0.52 %	0.52 %
	Urban			
	Rural			
Nitrate	Total	water works and distribution: 0.2 % consumers' taps: 0.1 %	0.04 %	0.01 %
	Urban			
	Rural			
Additional parameter 1: Pest. tot	Total	water works and distribution: 0.3 % consumers' taps: 0.1 %	0.05 %	0 %
	Urban			
	Rural			
Additional parameter 2: Copper	Total	water works and distribution: 0.0 % consumers' taps: 2.0 %	0.11 %	0.1 %
	Urban			
	Rural			
Additional parameter 3: THM	Total	water works and distribution: 0.0 % consumers' taps: 0.0 %	0.01 %	0 %
	Urban			
	Rural			

Parameter	Area/category	Baseline value (2005)	Value reported in the previous reporting cycle (2016)	Current value (2019)
Additional parameter 4: Nickel	Total		0.36 %	0.33 %
	Urban			
	Rural			

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 (2009)	Value reported in the previous reporting cycle (2018)	Current value (2021)	Baseline (2009)	Value reported in the previous reporting cycle (2018)	Current value (2021)
Shigellosis	617 (0.8/100,000)	674 (0.81/100,000)	144 (0.17/100,000)	—	—	—
Enterohaemorrhagic <i>E. coli</i> infection	835 (1.0/100,000)	2,221 (2.7/100,000)	1,599 (1.9/100,000)	—	—	—
Typhoid fever	65 (0.08/100,000)	58 (0.07/100,000)	18 (0.02/100,000)	—	—	—
Viral hepatitis A	929 (1.1/100,000)	1,042 (1.3/100,000)	563 (0.7/100,000)	—	—	—
Legionellosis	503 (0.6/100,000)	1,436 (1.7/100,000)	1,525 (1.8/100,000)	6	10	3
Cryptosporidiosis	1,106 (1.4/100,000)	1,810 (2.2/100,000)	1,507 (1.8/100,000)	—	—	—
<i>Giardia lamblia</i>	3,962 (4.8/100,000)	3,401 (4.1/100,000)	1,302 (1.6/100,000)	—	—	—

Cholera	0	0	0	—	—	—
Leptospirosis	92 (0.1/100,000)	115 (0.1/100,000)	164 (0.2/100,000)	—	—	—

The information above on the number of Legionellosis outbreaks are based on epidemiological and/or cluster-based evidence rather than on laboratory (microbiologically) confirmed associations. As no information on the numbers for Legionellosis outbreaks was available for 2021 at the time of reporting the outbreak numbers of 2020 were provided above.

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.

Percentage of population with access to drinking water	Baseline value (2005)	Value reported in the previous reporting cycle (2016)	Current value (2019)
Total	100%	100%	100%
Urban	100%	100%	100%
Rural	100%	100%	100%

☒ 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

Under the German Drinking Water Ordinance of 21 May 2001 (TrinkwV), last amended 22. September 2021, the requirements governing drinking water quality must be met by all drinking water supplies, regardless of their size, the quantity supplied, the number of persons served, or organizational and ownership structures. Therefore, the minimum requirements cited in the Ordinance apply to both centralized public water supply systems and private wells, which are all subject to surveillance by the

authorities. Both centralized supplies and private wells are included in the figures given above on access to drinking water. According to JMP definitions, 100 % of the population of Germany has access to improved sources. The vast majority of 99.4 % has access to household connections of piped supplies; a minority uses private wells with piped connections into home, too, typically employing protected dug wells, boreholes and protected springs. No information is available at the national level on the faecal contamination and level of continuity of private wells.

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.

<i>Percentage of population with access to sanitation</i>	<i>Baseline value (2005)</i>	<i>Value reported in the previous reporting cycle (2016)</i>	<i>Current value (2021)</i>
Total	100%	100%	100%
Urban	100%	100%	100%
Rural	100%	100%	100%

- ☒ 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

German statistics cover population connected to public sewers (with or without connection to wastewater treatment plants) and population not connected to public sanitation (with connection to small-scale wastewater treatment plants or with septic tanks). Both public sewers and decentralized sanitation are improved sanitation. In 2016, 100 % of the German population were connected to collective sanitation systems or other means of wastewater treatment. 97.1 % of the German population are connected to the public sewage system (as of 2016).

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 water³ falling under each defined class (e.g., for European Union countries and other countries following the European Union Water Framework Directive⁴ 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 (2009)	Value reported in the previous reporting cycle (2015)	Current value (2021)
High status	1.6%	0.3%	0.2%
Good status	9.5%	7.9%	9.0%
Moderate status	30%	36.1%	36.3%
Poor status	34%	33.8%	34.3%
Bad status	23%	19.2%	18.3%
Total number/volume of water bodies classified	9,567	9,542	9,553
Total number/volume of water bodies in the country	9,863	9,807	9,738

(ii) Chemical status of surface water bodies

Percentage of surface water bodies classified as	Baseline value (2009)	Value reported in the previous reporting cycle (2015)	Current value (2021)
Good status	88%	0% (due to ubiquitous substances like mercury, Germany is very strict on this)	0% (due to ubiquitous substances like mercury, Germany is very strict on this)
		84 % (without ubiquitous substances)	97.3 % (without ubiquitous substances)
Poor status	12%	100%	100%
Total number/volume of water bodies classified	9,863	9,807	9,738
Total number/volume of water bodies in the country	9,863	9,807	9,738

³ Please specify.

⁴ 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.

(iii) *Status of groundwaters*

<i>Percentage of groundwaters classified as</i>	<i>Baseline value (2009)</i>	<i>Value reported in the previous reporting cycle 2015)</i>	<i>Current value (2021)</i>
Good quantitative status	96.2%	95.7%	95.2%
Good chemical status	62.7%	64%	67.3%
Poor quantitative status	3.8%	4.3%	4.8%
Poor chemical status	37.1%	36%	32.7%
Total number/volume of groundwater bodies classified	989	1,180	1,291
Total number/volume of groundwater bodies in the country	989	1,180	1,291

(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).

All figures reported above under V. 1. a) are not finally verified yet, because they are compiled figures for the whole of Germany and need to be checked on the basis of the 2021 national river basin management plans for the ten national river basin districts.

The ambitious one out all out approach of the EU Water Framework Directive (WFD) for the evaluation of status of water bodies is challenging as it hides progress with regard to some parameters or substances.

German water bodies have been modified and used since hundreds of years. Therefore there are multiple pressures on water bodies. Improvement of status needs time and the resources needed (funding, personal and necessary space for measures) are not always available or only over a longer period of time. Germany has already spent billions for implementing the WFD.

Provisions for the evaluation of ecological and chemical status were changed or improved between 2009 and 2015 on EU level. They are stricter now especially with regard to chemical status, where e.g. mercury has now to be monitored in biota. Ubiquitous substances prevail and therefore in Germany, which interprets this strictly, all surface water bodies are not in good chemical status. Thus 2009 and 2015 cannot really be compared. It is difficult to find measures to improve the situation on ubiquitous substances. There is progress with regard to other substances. If ubiquitous substances were not taken into account, 97.3 % of the surface water bodies would be in good status.

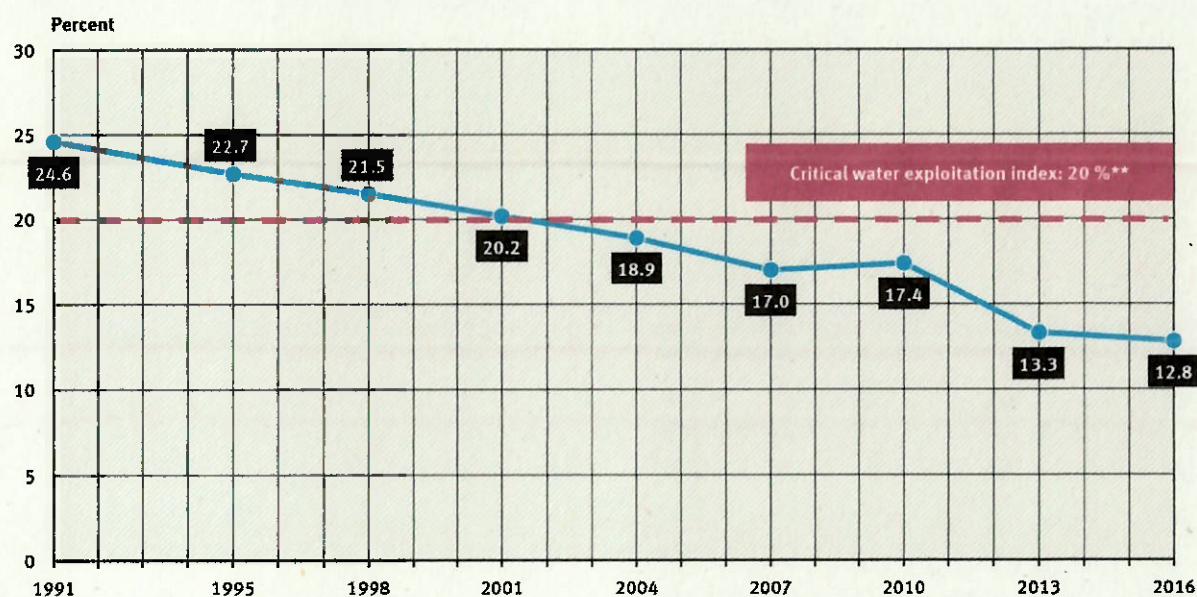
Progress in improving water status is only stepwise with regard to ecological status, but there is improvement with regard to some biological quality elements.

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.

Water exploitation index

Proportion of water abstraction to water resources*



* The water exploitation index is derived from the ratio of total water abstraction of the given year (since 2007 including irrigation) to the long-term potential water resources in Germany (188 billion m³).

** A water exploitation index of 20 % is considered as threshold for water stress.

Source: Federal Statistical Office of Germany; Fachserie 19, R. 2.1 and 2.2, Wiesbaden, various years; German Federal Institute of Hydrology, Koblenz, release dated 12.12.2018

Water exploitation index	Baseline value (1991)	Value reported in the previous reporting cycle (2013)	Current value (Total water use in Germany 2016 ***)
Agriculture	No information	0.3 billion m ³ *	Agriculture, forestry and fisheries 0.57 billion m ³
Industry ^a	11 billion m ³ **	6.1 billion m ³ **	Mining and quarrying 1.31 billion m ³
	28.8 billion m ³ ** for energy production	13.6 billion m ³ ** for energy production	Manufacturing sector 4.47 billion m ³ Energy supply 13.22 billion m ³
Domestic use ^b	6.5 billion m ³	5.1 billion m ³	Water supply ****, wastewater treatment, waste disposal and similar 5.13 billion m ³ Services for private households 3.14 billion m ³

^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).

* I.e. water abstraction for agricultural irrigation

** I.e. water abstraction by sector

*** Source: Destatis, <https://www-genesis.destatis.de/genesis/online?language=de&sequenz=tabellen&selectionname=85111-0002#abreadcrumb> (last accessed on 18 February 2022)

Columns 1 and 2 (estimates) and 3 of the table are not comparable.

**** Mainly public water supply systems, but also individual supply systems

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.

Outbreak detection and management is organised taking into account the complex federal structure of Germany. Primary responsibility lies with the local authorities. Special situations (e.g. affecting several federal states) are handled (independent of the mode of transmission or pathogen) according to respective administrative provisions related to epidemic preparedness and control (see the "Allgemeine Verwaltungsvorschrift über die Koordinierung des Infektionsschutzes in epidemisch bedeutsamen Fällen (Verwaltungsvorschrift-IfSG-Koordinierung - IfSGKoordinierungs-VwV)" - http://www.verwaltungsvorschriften-im-internet.de/bsvwvbund_12122013_31945300302.htm).

3. 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.

(a) The Robert Koch Institute developed a system for automatic detection and reporting of case clusters using surveillance data. The system and its reports are provided to health authorities on a weekly basis to facilitate outbreak detection and response. This specifically includes legionellosis and other potentially water-borne pathogens.

(b) The Robert Koch Institute maintains and provides several guidance documents for public health authorities and clinicians to facilitate early diagnosis of cases and adequate response

to outbreaks (e.g. for legionellosis:
https://www.rki.de/DE/Content/InfAZ/L/Legionellose/OEGD/Dokumente_Tab.html).

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 German Environment Agency (UBA) conducts 3-day training sessions with a focus on staff from local health agencies twice a year, addressing current issues of drinking-water supply and bathing water hygiene (due to the global pandemic, these training sessions were recently conducted as online versions). It furthermore publishes brochures, children's books and further guidance materials for the general public on these issues, and informs on the Protocol on Water and Health, including a link to the national targets set, on its webpage.

International cooperation takes place in six international river basin commissions or bodies as well as in 4 bilateral transboundary waters' commissions. The cooperation covers all water management issues like surface and groundwater quality, water ecology, flood protection, warning and alarm systems in case of accidents etc. Drinking water and sanitation are also issues in those international discussions. The above mentioned commissions, especially the international ones, are platforms to coordinate the implementation of EU water directives on river basin level, especially the EU Water Framework Directive and the EU Flood Risk Management Directive. See links to the websites of international river basin commissions for further information on transboundary cooperation: www.iksr.org, www.iksms-cipms.org, www.icpdr.org, www.ikse-mkol.org; www.mkoo.pl; www.meuse-maas.be; www.ems-eems.de

Furthermore, Germany is part of ENDWARE, an informal network of EU drinking-water regulators who meet twice per year for exchange of information and experience.

Germany is represented in the Bureau of the Protocol on Water and Health. Germany also cooperates with a lot of countries in the framework of the UNECE Water Convention and of course the Protocol on Water and Health. International support for national action is not relevant for Germany.

Germany, together with Serbia, leads the activity on small-scale water supplies and sanitation under the current Programme of Work of the Protocol. Particularly under this activity, Germany has contributed to international cooperation, joint and coordinated international action, and international support for national action through the following:

- Pilot project on integrated Water and Sanitation Safety Plans in Serbia: this project is financed under the Advisory Assistance Programme of BMUV.
- Publication of a draft guidance on costing and financing small-scale water services and launching it during an online event: financial support for this activity was provided by the UBA and the BMUV.
- Updating the guidance document *Water safety plan: a field guide to improving drinking-water safety in small communities*: this activity was led through in-kind contributions of the UBA.

- Analysis and compilation of information on small-scale water supply and sanitation systems from the fourth reporting cycle under the Protocol, an online survey and detailed interviews: this activity was led through in-kind contributions of the UBA.

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 (-).

Data source on coverage of basic sanitation services and basic hygiene services are estimates, as published in the JMP report "Drinking Water, Sanitation and Hygiene in Schools. Global baseline report 2018". According to JMP definition, there is also 100% access to improved drinking water.

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

<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 %

2. 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.

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 (-).

<i>Percentage of population</i>	<i>Current value (specify year)</i>
Total	No info

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).

Part seven

Information on the person submitting the report

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

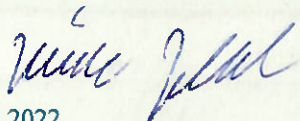
Name of officer responsible for submitting the national report: Heide Jekel

E-mail: Heide.Jekel@bmu.bund.de

Telephone number: +49 (228) 99 305-2521

Name and address of national authority: Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV), Robert-Schuman-Platz 3, 53175 Bonn, Germany

Signature:



Date: 13 April 2022

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.

Joint Secretariat to the Protocol on Water and Health

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