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Water and Health to the Convention on
the Protection and Use of Transboundary
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Item 6 (a) of the provisional agenda

**Review of past activities and discussion of future activities in
the different areas of work: setting targets, implementing
measures and reporting under the Protocol**

**Regional report on the status of implementation of the
Protocol***

**Prepared by the joint secretariat with the assistance of the WHO
Collaborating Center at the University of Bonn****

Summary

According to its terms of reference, the Working Group on Water and Health is responsible for overseeing and directing the activities carried out under the programme of work and for examining experience and drawing up draft recommendations. It also advises the Meeting of the Parties regarding the further development of the programme of work and its adaptation to changing circumstances. At its ninth meeting (Geneva, 29–30 June 2016), the Working Group requested that the present regional report on the status of implementation of the Protocol be prepared by the joint secretariat for submission to the fourth session of the Meeting of the Parties (see ECE/MP.WH/WG.1/2016/2-EUPCR/1611921/2.1/2016/WGWH/06, forthcoming).

* The present document is being submitted without formal editing.

** The present document is submitted late due to resource constraints.



The report summarizes information on the status of implementation of the Protocol from 29 out of the 32 national summary reports submitted in the third reporting exercise. The document aims to assist Parties in assessing implementation of the Protocol and facilitate preparation and adoption by the Meeting of the Parties of a number of decisions, in particular the programme of work for 2017–2019 (ECE/MP.WH/2016/2–EUPCR/1611921/2.1/2016/MOP-4/08).

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I. Procedural aspects of the third reporting exercise

1. According to article 6 of the Protocol on Water and Health to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, within two years of becoming a Party, each Party must establish and publish national and/or local targets and target dates in order to achieve or maintain a high level of protection of human health and well-being.
2. Article 7 of the Protocol requires Parties to collect and evaluate data on their progress towards the achievement of the targets set and on how that progress has contributed towards preventing, controlling or reducing water-related disease. In accordance with the guidelines established by the Meeting of the Parties, every three years Parties have to prepare and submit to the joint secretariat summary report of the data collected and evaluated and the assessment of the progress achieved.
3. At its eighth meeting (Geneva, 21–22 October 2015), the Working Group on Water and Health endorsed the revised template for summary reports (ECE/MP.WH/WG.1/2015/L.1–EUDCE/1408105/1.10/2015/WGWH/08) and recommended it for use by Parties and other States in the third reporting cycle. In accordance with the template, Parties were to submit their summary reports by 18 April 2016, 210 days before the fourth session of the Meeting of the Parties.
4. The present regional implementation report analyses 29 out of 32 summary reports submitted by all 26 Parties to the Protocol and 6 other States.¹ The reports of Belgium, Monaco and Portugal were submitted too late to be considered in this analysis.²
5. The reports submitted were of varying length, level of detail and quality. It was not within the mandate of the joint secretariat to verify the information provided. Thus, the present document should be read with these limitations in mind and should not be regarded as a comprehensive and exhaustive review of the status of implementation of the Protocol.

II. General aspects

A. Target setting process

6. 20 countries provided information on the targets and target dates they set although for some of these countries it was not clear whether the targets were set specifically under the Protocol or within their national strategies and policies. 4 Parties and 2 other States indicated target setting was in progress in their countries. 3 countries reported that they have not set targets under the Protocol but provided information about their national targets on water, sanitation and health.
7. Targets set by countries are tailored to match national priorities and needs. Thus, targets may be set under a specific target area or may cover several target areas. Most of the targets were set in the area of drinking water quality followed by the areas of water-related disease and outbreak reduction and prevention, access to water and sanitation and untreated

¹ Reports were received from Albania, Armenia, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Croatia, Czech Republic, Estonia, Finland, France, Georgia, Germany, Hungary, Israel, Latvia, Lithuania, Luxembourg, Malta, Monaco, Netherlands, Norway, Portugal, Republic of Moldova, Romania, Russian Federation, Serbia, Slovakia, Slovenia, Spain, Switzerland and Ukraine.

² All summary reports submitted by Parties and others States are available from http://www.unece.org/env/water/protocol_third_reporting_cycle.html.

wastewater discharges. Countries set fewer targets in the area of wastewater used for irrigation purposes, quality of waters used for aquaculture and identification and remediation of particularly contaminated sites.

8. In terms of measures to implement the targets set, most countries focus their national strategies on improving legislative and regulatory frameworks and enhancing management of water resources. Most reports, however, do not provide information on the status of implementation of these measures.

9. Countries also report on the international strategies and instruments transposed into national law that are taken into account when setting targets.

10. As regards the cost-benefit analysis, different approaches were used by countries: while a few countries report having undertaken such analysis, a number of countries indicate having taken financial implications into account when setting their targets, including developing a full financial strategy (Norway, Republic of Moldova). 10 Parties and 3 other States reported that no cost-benefit analysis was carried out.

11. Intersectoral coordination between different authorities at national and subnational levels is operational in the majority of countries. However, different approaches are used depending on the institutional structure in each country, which may be particularly challenging when setting targets and reporting in case of federal states (Belgium, Bosnia and Herzegovina, Russian Federation).

Table

Overview of general aspects of target setting

<i>Country</i>	<i>Status</i>	<i>Number of countries</i>
Target setting status	Set/revised	18
	In progress	6
	No targets set	5
Publication of targets	Published	21
	Planned	2
	Not published	2
	Not applicable	4
Consideration of financial implications	Considered	12
	Partially considered	4
	Not considered	9
	Not applicable	4
Public participation	Effective	22
	Partly effective	2
	Not effective	1
	Not applicable	4

B. Public participation

12. Public participation is recognized as an important factor for implementing the Protocol with 21 Parties and 3 other States describing concrete activities to ensure the involvement of public in target setting process. The Netherlands and Switzerland, for example, provide information on extensive public participation processes. Most countries,

however, refer only to the involvement of experts and relevant stakeholders rather than engaging the general public in the target setting process.

13. Where efforts to involve general public are made, some countries report limited interest and feedback received (Czech Republic, Romania, Slovakia). Consequently, targets on raising public awareness on the Protocol are gaining importance.

14. Countries such as Armenia, Hungary, Norway, Serbia, Slovakia and Ukraine emphasize the crucial role of non-governmental organizations in the target setting process.

C. Emerging or country-specific issues

15. Several countries identify direct and indirect impacts of climate change on water resources as the most pressing emerging challenge. Countries' efforts in ensuring water quality and safety and resilience of sanitation in the context of floods and water scarcity are expected to further intensify in the coming years. Russian Federation highlights the need for developing effective incident response schemes and public healthcare adaptation scenarios.

16. Preparedness and management of waterborne outbreaks with the consequent need for improving data collection systems and methodology for epidemiological investigation are recognized as another major challenge. Countries suggest approaches such as risk assessment and management, establishing surveillance and early-warning systems and focusing on contingency planning and response.

17. Attention should be given to the joint management of water resources in transboundary river basins, as highlighted by countries such as Lithuania.

II. Common indicators

A. Bacteriological quality of the drinking water supplied

18. The bacteriological quality of the drinking water supplied (WatSan_S2) is defined by the number of tested samples failing to meet national standards for the parameter *E. coli* and Enterococci. As different national standards are applied, the results between countries cannot be directly compared. 22 countries provided compliance data for *E. coli* and 18 of them reported high compliance (>95%) with the national standards. Non-compliance of more than 10% of samples is reported by Armenia (11.4%), Azerbaijan (11.2%) and the Republic of Moldova (14.5%) although Armenia and Azerbaijan show significant improving trend. 18 countries provided compliance data on Enterococci and the majority of analysed water samples have high compliance with the national standards.

19. The population covered by water sampling is ranging from 61% (Latvia) to 100% (Israel, Malta, the Netherlands). However, most reports do not specify sampling points.

B. Chemical quality of the drinking water supplied

20. The reporting parameters, i.e. arsenic, fluoride, nitrates and nitrites, show generally positive trends. A number of countries, however, report rising percentages of non-compliant samples for one or more of these parameters (i.e. arsenic for Croatia and Hungary, fluoride for Estonia, Lithuania and the Republic of Moldova, lead for France, Russian Federation, Slovakia, Spain, Ukraine).

21. The reports reveal that countries focus on improving water quality monitoring. Thus, a higher incidence of non-compliant samples could be related to the fact that a higher number of samples are taken from vulnerable infrastructures and rural areas and that analysis methods have improved.

22. The assessment methodology of chemical water quality is questioned by several countries such as the Netherlands as the percentage of samples failing to meet the national standards depends on the number of tested parameters and on the national thresholds. Thus, countries with less accurate or less intense sampling may report lower percentages of non-compliant samples. Data collected in this manner is not comparable and would only reflect national trends over time.

C. Reduction of the scale of outbreaks and incidence of infectious diseases

23. Public health data reported by Azerbaijan, Croatia, Estonia, Hungary, Latvia, Luxembourg, Serbia and Spain shows important progress in reducing the scale of outbreaks and incidence of infectious diseases. However, countries do not provide sufficient information to support this data.

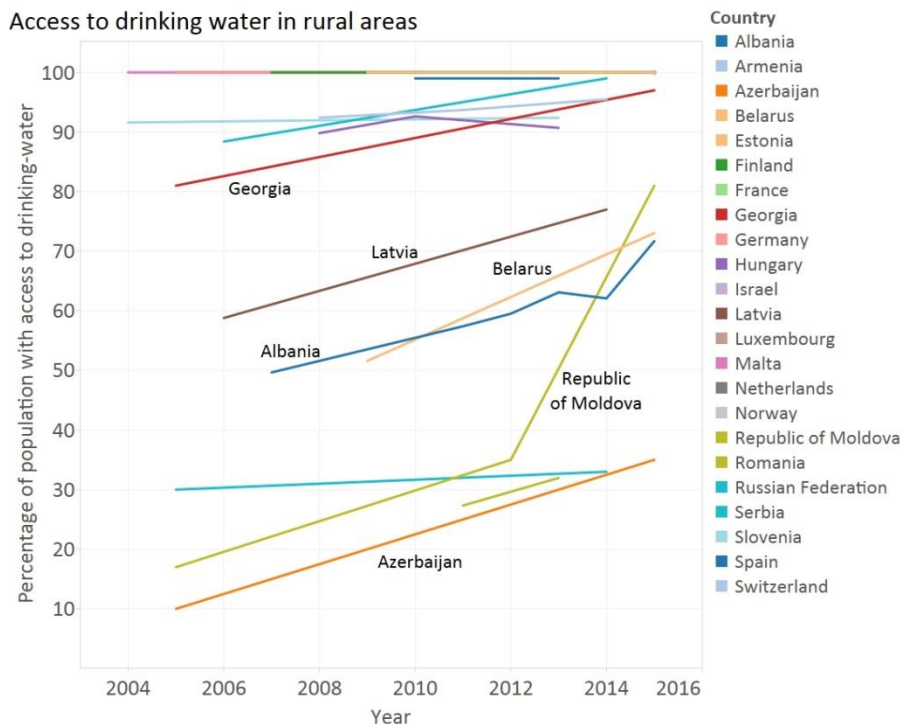
24. 5 countries (Estonia, Germany, Hungary, Israel, Russian Federation and Ukraine) report a total of 178 outbreaks of hepatitis A. 7 countries (Albania, Estonia, Georgia, Germany, Hungary, Israel and Russian Federation) report 59 outbreaks of shigellosis in total. Enterohaemorrhagic *E. coli* outbreaks are only reported in Finland and Germany, while Hungary reports one outbreak of cryptosporidiosis.

D. Access to drinking water and sanitation

25. Access to drinking water is reported to be high both in urban and rural areas in Western Europe but it is lower in the Eastern part of the region, including in some European Union countries, in particular in small scale water supplies and rural areas. In general, the data reported shows substantial progress over time. The figure 1 below illustrates the progress in access to drinking water in rural areas.

26. It has to be noted, however, that countries use different definitions of access and different data sampling methods which makes it difficult to produce a standardized overview.

Figure
Access to drinking water in rural areas



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

27. Several countries, including outside the European Union, report on the effectiveness of management, protection and use of freshwater resources following the criteria of the European Union Water Framework Directive³ and the Groundwater Directive.⁴ The majority of these countries report successful performance in this area which influences water quality and health outcomes.

28. A general trend, including in countries of Eastern Europe, the Caucasus and Central Asia, is the improvement of surface water quality, but the data sets and corresponding criteria differ substantially.

29. Difference in performance and effectiveness of water management is reflected in target setting with some countries in the region considering that sufficient progress has been achieved and thus not setting targets, while other countries clearly identify their priorities and needs in this area.

³ Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy.

⁴ Directive 2006/118/EC of the European Parliament and of the Council of 12 December 2006 on the protection of groundwater against pollution and deterioration.

IV. Targets, target dates and assessment of progress

30. The present report refers indistinctly as targets to the targets set under the Protocol and the targets established within countries' national policies and strategies as in many instances the national summary reports do not allow for a clear distinction.

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

31. 20 out of 29 reporting countries set targets in this area. 7 countries that were in process of setting targets reported considering setting targets in this area. 2 Parties have not set targets.

32. The majority of targets set referred to improving water quality, management measures and monitoring. The main measures towards achieving the targets include improving management as well as legal and regulatory frameworks, strengthening monitoring and surveillance and capacity building activities. In some countries, water safety plans have been identified as tools to improve water quality (Armenia, Georgia, Republic of Moldova).

33. These measures are the first steps in enhancing water quality and preparing for undertaking more effective and concrete measures. Thus, more progress is expected in the near future as a result of these efforts. Many countries have already achieved the targets set or are close to achieving them, in particular targets related to improving management measures and revision of legislation, for example in countries like Czech Republic, Germany, Luxembourg, the Netherlands and the Republic of Moldova. The targets that are not yet achieved are related to non-compliance of drinking water samples with microbiological and chemical guideline values.

34. In terms of good practices in setting targets in this area, Serbia reports on undertaking baseline analysis, developing a plan for improvement and a drinking water quality database, public presentation of results of baseline analysis, and publication of the Serbian plan for achieving the target.

35. Countries referred to the lack of funding for new investments of drinking water supply systems as the main challenge. Other challenges noted were lack of compliance by local authorities and specific challenges in rural areas.

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

36. 19 reporting countries set 27 targets in this area and 4 countries indicated that target setting was in progress. 6 countries have not set targets with the justification that water-related diseases were extremely rare and surveillance was already in place.

37. The majority of targets cover operational management measures, maintaining high water quality and a functioning surveillance system. Strengthening surveillance and monitoring and improving legal and regulatory frameworks are the main measures taken, using the health outcome as a sensitive indicator.

38. Targets achieved are mainly in the field of improving and maintaining safe water quality. For example, Germany, Finland, Norway and Spain work on improving their outbreak surveillance system in order to detect endemic diseases and outbreaks. On one hand, the disease detection methods are being improved (Czech Republic, Spain, Ukraine) and on the other hand the electronic surveillance system is updated and improved to detect water-related disease outbreaks (Republic of Moldova, Norway Spain). Some countries

focus on the reduction or prevention of water-related diseases through activities addressing water, sanitation and hygiene in schools (Georgia) and in small-scale water supplies (Croatia, Serbia).

39. Challenges which have been noted include need to improve detection and quality of reporting, lack of concrete targets, and funding needs. For some countries, improvement in detection methods leads to reporting diseases which were previously not notified.

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

40. 19 reporting countries have set 27 targets. 5 countries are in progress and 5 countries have not set targets (the explanation provided by Germany and Israel, for example, is that full access to drinking water is already achieved).

41. The majority of targets cover access to sufficient drinking water in terms of quality and quantity. Access in rural areas or in educational facilities should be ensured which requires infrastructural measures. Switzerland is proposing a target on creating emergency infrastructure to improve water supply in exceptional situations as outdated emergency scenarios do not meet current challenges. Mainly targets that were achieved are either in the field of improving access to drinking water (Finland) or ensuring safe drinking water quality (Malta).

42. The measures taken include improving legal and regulatory frameworks, management measures and infrastructure development, including in rural areas and public facilities, e.g. schools.

43. Countries such as France and Hungary pay special attention to ensuring equitable access for all. In Hungary and in the Netherlands social financing is used to ensure universal access, while Slovenia makes effort to improve good hygiene practices amongst vulnerable groups such as refugees, economic migrants, Roma community, etc. Finally, Serbia is one of the countries focusing on school and preschool facilities by assessing the needs and the related cost of investment required in this area.

44. Access to drinking water in rural areas is one of the major challenges reported. In particular, remote locations in Finland, Romania and Ukraine are unlikely to be connected to a centralized drinking water supply. On the other hand, countries like Croatia, Hungary and Lithuania report lack of adequate funding for reconstruction of costly infrastructure.

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

45. 19 countries have set 37 targets in this area. 5 countries indicated they are in progress and 5 countries did not set targets (the explanation provided by Germany and Switzerland, for example, is that full access to sanitation is already achieved).

46. In their targets, countries address mainly development and improvement of infrastructure such as sewerage systems and wastewater treatment plants as well as access to sanitation facilities.

47. Measures taken by countries include implementing legal and regulatory frameworks, operational management measures and capacity building. As construction and renewal of sanitation infrastructure is rather costly, especially in rural areas, activities often focus on improving existing sewerage systems and wastewater treatment plants for bigger cities.

48. Noteworthy practices are reported in France, where a national action plan on decentralized sanitation is to be published soon, as well as in Serbia, where awareness raising activities on hygiene of the sanitation facilities in schools for teachers and students

are planned. The Republic of Moldova, on the other hand, set a target on developing small scale sanitation systems such as Ecosan toilets, constructed wetlands and septic tanks in rural areas.

49. The main challenge in this area is the lack of adequate funding to cover high investment costs necessary to upgrade or build the infrastructure. Many countries also indicate that baseline assessment of the situation is missing and the lack of information hampers the possible development of an action plan in this area.

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

50. 16 countries have set 25 targets in this area and 2 countries are still in progress. 11 countries have not set targets in this area, in some cases due to the already satisfactory level of performance of water supply systems (Belarus, Czech Republic, Estonia).

51. The majority of targets focus on implementing legal and regulatory frameworks, developing water supply infrastructure and increasing access to drinking water of appropriate quality through monitoring and introducing operational management measures. So far, only a few countries report to have achieved the targets set.

52. In terms of good practices, Norway set defined levels of performance for water supply security (>99.95%), reducing leakages (<25%) and interruptions of service. The Netherlands introduced risk analysis for priority supply systems like hospitals and hotels with a focus on prevention of legionellosis.

53. The lack of financial resources for improving infrastructure and reducing leakages of water supply systems are repeated challenges for countries such as France, Latvia, Norway, Romania and Slovakia.

54. Due to the lack of funding, countries engage in management, monitoring and legislative measures rather than investing in the upgrade or reconstruction of water supply infrastructure. This, however, may provide baseline conditions for investments, once funding becomes available.

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

55. 14 countries have set 27 targets in this area and 3 countries indicated they were in progress. 12 countries have not set targets in this area, in case of Czech Republic, Germany due to the already satisfactory or high performance of sanitation systems.

56. The targets mainly address access, provision of service and operation of sanitation infrastructure, with planned measures focusing on implementation of legal/regulatory frameworks, institutional and operational management measures and monitoring.

57. Norway set a target of integrating future climate projections into the storm water management models to avoid overloading the sanitation systems. Also, in Norway, reconstruction of public wastewater pipelines is to be combined with the upgrade of the associated private pipelines. Malta involves the public when setting national targets in this area as customer reviews on sanitary services are taken into account to improve service quality. As centralized sanitation systems may not be economically reasonable in rural areas, Finland and Slovenia focus on affordability aspects when setting targets in this area.

58. In terms of challenges, countries mention the lack of funding (Croatia) and the need for building capacity of personnel (Norway).

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

59. 17 countries set targets in this area, 3 countries are in progress and 9 countries did not set targets.

60. The approach followed in this area by most countries is securing water quality from source to tap through enhancing legislation, developing infrastructure, establishing institutional and operational management measures. Capacity building, information and public participation are also mentioned as good practices in this area.

61. Countries focus on establishing water safety plans (Luxembourg) and capacity building in small-scale supplies (Lithuania). Norway promotes risk management approach including climate change impact assessment.

62. Some countries report that targets were achieved, including the implementation of water safety plans (Hungary) and introduction of measures to reduce leakages (Malta).

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

63. 13 countries set targets in this area, 2 countries are in progress and 14 countries did not set targets. The reasons for not setting the targets included satisfactory situation in this area and the lack of funding (Ukraine). Hungary made a reference to targets set in other areas.

64. The targets referred mainly to protecting water sources through maintaining infrastructure, strengthening regulatory frameworks and organizing awareness raising and capacity building activities. Most countries report having achieved certain progress in implementing the targets.

65. Serbia promotes WASH in schools through capacity building and increasing awareness. France and Lithuania promote decentralized sanitation options through distributing information online and organizing trainings.

I. Occurrence of discharge of untreated wastewater (art. 6, para. 2 (g) (i))

66. 18 countries set targets in this area, 5 countries are in progress and 6 countries have not set targets.

67. The majority of targets focus on the construction or maintenance of wastewater treatment plants and the prevention of discharge of untreated wastewater into the environment through improved wastewater treatment, less accidental discharge and better management of emergency situations such as extreme weather events.

68. 6 countries report having fully achieved the targets related to the prevention of untreated wastewater discharge, even if this required costly investments (Norway).

69. In terms of good practices, Finland recognizes that the number of storm water overflow events is expected to rise due to climate change and that the current, often satisfactory situation may become inadequate in the future. Consequently, there is a need for preparing for this future scenario.

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

70. 12 countries set targets in this area, 3 countries are in progress and 14 countries have not set targets. The reasons provided by countries for not setting targets included lack of baseline data (Hungary), sufficient regulations already in place (Germany) and financial limitations (Ukraine). Further awareness raising and capacity building in this area may be needed to promote target setting.

71. The targets set by countries focus on improving legislation for reducing the number of storm water discharges, improving the quality of waters discharged from point and diffuse pollution sources and developing infrastructure to separate sewage and storm water as well as for storing and treating storm water prior to discharge. Measures such as monitoring and capacity building of personnel for maintaining the infrastructure are also mentioned.

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

72. 14 countries set targets in this area, 5 countries are in process and 10 countries have not set targets.

73. Most targets focus on building, operating and maintaining wastewater treatment plants. Measures to achieve targets include strengthening legal frameworks and monitoring quality of discharges.

74. In terms of good practices, in addition to building water treatment facilities for human settlements and industries, Belarus improved the status of the sewer networks which resulted in substantial improvement of discharge quality as well as in decrease of insufficiently treated wastewaters. Latvia used the European Union funds for extending and reconstructing the infrastructure, resulting in substantial decrease in nitrogen, phosphorus and biochemical oxygen demand values.

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

75. 13 countries set targets in this area and 4 are in progress. 12 countries have not set targets. A few countries (Belarus, Netherlands) indicated that reuse of sludge is not carried out or that this would be an option for the future (Hungary).

76. The targets set mostly refer to the legal and regulatory aspects of the management and use of the sewage sludge in the environment. In Switzerland, reuse consists of incineration and energy recovery, while countries like Israel, Norway and the Republic of Moldova target agricultural reuse for nutrient recovery and soil conditioning. Countries also focus on monitoring and capacity building to control the reuse or disposal of sludge collected from sanitation.

77. As an example of good practice, Norway has implemented targets to update the management of sewage systems including reuse of sludge and appropriate use of fertilizers to guarantee a minimum run-off and sufficient quality of organic residuals in sludge. The amount of sewage sludge to be reused is defined, the reuse as a fertilizer and soil conditioner is promoted and other resource recovery such as biogas production is also

addressed by a target. Appropriate management of fertilizers to prevent diffuse pollution from agricultural areas and the avoidance of smell by ensuring adequate storage of sewage sludge is crucial. Implementation of such targets is rather challenging financially.

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

78. The Republic of Moldova set targets under the Protocol in this area. France also set national targets and Israel indicated target setting was in progress. The other 26 countries have not set targets in this area since in most countries wastewater is not used for irrigation, even though it may become a focus in future (Hungary).

79. In Israel, promoting wastewater treatment and safe reuse of effluents in agriculture is a national priority with targets addressing safe management of wastewater used for irrigation. France and the Republic of Moldova target assessing different options and risks of wastewater reuse for irrigation. The Netherlands foresee that climate change is likely to significantly affect water resources which may lead to a more common practice of reusing wastewater for irrigation. Consequently, legal and regulatory frameworks for water reuse should be developed.

80. Promoting knowledge and experience sharing between the countries in this area would be useful.

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

81. 13 countries set targets in this area and 5 countries are in progress. 11 countries have not set targets. The reasons given for not setting targets refer to the already existing regulatory frameworks such as the European Union Water Framework Directive or to the already ongoing activities in this area.

82. The targets mainly refer to improving legal frameworks for establishing minimum quality standards for raw water that is used for drinking water supply and preventing water quality deterioration through environmental protection. More than half of the targets set in this target area show progress.

83. Some countries establish protection zones (Armenia, Luxembourg), while others focus on concrete measures such as undertaking risk assessment (Lithuania), surveillance of cyanobacteria growth in drinking water reservoirs (Slovakia) or the development of geographic information system to map the drinking water sources and their quality (Republic of Moldova).

84. According to the Netherlands, water with “good status” as defined in the European Union Water Framework Directive is not suitable for human health. Therefore, the previous target to meet the requirements of the directive may need revision. Croatia highlights that monitoring is particularly challenging and costly in small scale water supplies.

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

85. 17 countries set targets in this area and 4 countries are in progress. 8 countries have not set targets, in some cases referring to the successful implementation of the European Union Bathing Water Directive⁵ or to the sufficient quality of waters achieved.

86. The majority of countries identified this area as important. Most targets address compliance with legal and regulatory frameworks, monitoring water quality and registration and management of bathing water sites. The implementation of the targets is in progress and some of the targets were already achieved.

87. Surveillance, monitoring and the set-up of electronic information systems are the most important measures to be implemented according to the reports. In addition to implementing the Bathing Water Directive, Serbia set a target on improving monitoring and data collection via electronic information system during routine and emergency situations, while Slovakia plans on monitoring cyanobacteria expansion in bathing sites.

88. Among the challenges, Hungary highlights the need for improving laboratory capacity to allow timely warning as well as for establishing register of water bodies suitable for bathing due to the existence of non-official, highly frequented bathing sites.

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

89. 8 countries set targets in this area. 21 have not set targets, allegedly due to little relevance of the issue of aquaculture or the minor importance of this area compared to other target areas (Hungary). Belarus reports that the fish farms are responsible for ensuring water quality.

90. The targets set mostly aim at improving quality of water used for food production.

91. France has developed shellfish vulnerability profiles which may be a concept adaptable to other countries. Such profiles aim at identifying, quantifying and prioritizing different sources of microbiological pollution that may affect shellfish areas in order to define actions to reduce and manage health risks. Such vulnerability profiles are complemented by frequent monitoring.

92. The Netherlands consider focusing on identifying harmful substances such as nutrients, pesticides and emerging substances like medicines and microplastics that affect quality of waters used for aquaculture. A study on Norovirus as an additional quality parameter is also ongoing.

93. Hungary notes that the monitoring data of aquaculture systems is rather fragmentary. Lack of internal and state controls is also addressed by Norway and the Republic of Moldova.

⁵ 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 as amended by Regulation 596/2009/EC.

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

94. 11 countries set targets in this area and 2 countries are in process. 16 reporting countries have not set targets, in some cases due to addressing this issue under article 6, paragraph 2 (j).

95. Targets focus on ensuring bathing water quality and operating bathing facilities in order to meet the standards laid out in the national legislation. Romania considered this target as achieved after publishing guidance on good practices for operating swimming pools. Finland also achieved a target requiring employees at indoor swimming pools and spas to undertake training on operational aspects and water hygiene.

96. Good practices include updating technical regulations (Germany, Spain), developing guidance documents (Germany, Lithuania, Romania, Serbia) and training of staff (Finland, Latvia). Assessment and monitoring of the quality of enclosed waters is also an important target as absence of external control may result in deficient monitoring (Norway).

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

97. 8 countries set targets in this area and 4 countries are in progress. 17 countries have not set targets in this area due to either implementation of the already existing national legislation or consideration or ongoing consideration of this issue.

98. Most targets set refer to management measures in order to prevent contamination of environment and water resources in particular. Mapping, assessment and monitoring of contaminated sites is necessary to implement the targets set.

99. Latvia, for example, has a number of contaminated sites, which were mapped by regional environmental authorities and then prioritized according to their hazardous potential. The remediation of contaminated sites requires enormous investments for which the country receives additional external funding.

100. Finland is concerned that to date there were only a few attempts to decontaminate groundwater, largely due to the long-term activities, uncertainty of results and high costs.

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

101. 14 countries set targets in this area and 6 countries are in progress. 9 countries have not set targets either due to the already existing national legislation (Russian Federation, Serbia) or the efficiency of the existing management systems (Estonia, Germany).

102. The majority of targets set focus on improving surface water quality through assessments and monitoring (Norway), prevention of local diffuse pollution (Hungary, Norway) and development of national and international river basin management plans (Belarus, Latvia, Ukraine).

103. In general, in this area the reports focus on a broad range of issues. Switzerland, for example, addresses the elimination of negative effects on water of hydroelectric power generation (hydropeaking, bed-load balance, accessibility for fish). Some countries report on other general activities that could not be addressed under other target areas.

T. Additional national or local specific targets

104. 11 countries set additional national or local specific targets covering a wide range of activities and 2 countries indicated they were in progress.

105. Most countries set additional targets on increasing public participation and access to information. For example, Finland has a water utility database on drinking water, wastewater and performance indicators. Hungary established a website dedicated to the implementation of the Protocol. The Netherlands inform online about safety of bathing waters and has also established a water education portal. Slovakia is targeting public awareness in relation to natural healing and mineral waters.

106. A few countries also report on establishing information centres such as the clearing house in the Republic of Moldova (the centre provides information on the drinking water quality and access to improved water supply systems and sanitation) and the Dutch information centre on water (association of water managers providing uniform, accessible information on water issues).

107. The Czech Republic and the Netherlands report on training programs for water and public health managers. Both countries also support research and development on the issues of water quality and cost-effectiveness in water supply and wastewater treatment.

108. Hungary and Lithuania focus on addressing water management aspects of adaptation to climate adaptation, in particular in relation to droughts.

V. Overall evaluation, lessons learned and conclusions

109. Overall, the reports reveal enhanced implementation of the Protocol as compared to the previous reporting cycle. More countries set their national targets under the Protocol and a number of countries are in the process of doing so. A growing number of countries report on being in the process of implementing or having already implemented some of their targets.

110. In terms of types of the targets set, approximately 31% relate to water quality; 18% to management measures; 17% are infrastructure related; 10% deal with legal and regulatory issues; 8% focus on monitoring; 6% on access to water and sanitation; 5% on capacity building and awareness raising; and 5% are other types of targets.

111. In their reports, countries extensively describe the revision and improvement of national legislation as well as transposition of international obligations such as the European Union directives into national law. Such focus on improving the legislation as a first step is logical in the complex and lengthy process of setting and implementing the targets.

112. Increasingly, countries focus on capacity building as well as on infrastructure development which requires significant investment. It is expected that more practical targets with direct influence on water and sanitation outcomes will be set in the future, also when more funding opportunities become available.

113. Several reports state lack of funding and limited financial capacity as a challenge for implementing the targets. Therefore, providing guidance and exchange of experience on attracting funding between countries would be of use in future work under the Protocol.

114. Many countries focus on small scale water supplies, sanitation and treatment facilities. Further efforts are required in terms of knowledge sharing, capacity building and monitoring in this area.

115. Participation in the country surveys for the UN Water Global Assessment and Analysis of Sanitation and Drinking Water (GLAAS) is reported useful for baseline analysis under the Protocol (Georgia, Serbia).

116. Some countries that are at the stage of implementation report useful approaches such as developing and officially adopting detailed action plans for implementing their targets (Norway, Republic of Moldova).

117. In terms of common indicators, a substantial improvement of water quality as compared to the second reporting cycle can be seen for both the bacteriological and chemical parameters. The occurrence of water-related diseases is a major indicator for the effectiveness of measures taken to improve water and sanitation and the data provided shows a positive trend. However, the majority of countries do not support the data provided with the analysis of measures taken and health outcomes.

118. In Azerbaijan, for example, the reported health outcomes mirror the efforts made towards improving the water and sanitation. The country significantly improved access to drinking water and sanitation for both urban and rural population in the period from 2005 to 2015. Consequently, the report shows that the percentage of non-compliant samples to national standards has dropped significantly (from 39% in 2012 to 11% in 2015). There is also a reduction in the incidences of shigellosis, viral hepatitis A and legionellosis in 2015 compared to the baseline year.
