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Review of past activities and discussion of future activities in the different areas of work: target setting and reporting

Regional report on the status of implementation of the Protocol

Prepared by the joint secretariat with the assistance of two consultants

Summary

The Working Group on Water and Health, by its terms of reference, is tasked by the Meeting of the Parties to the Protocol on Water and Health with examining experience and drawing up draft recommendations. It may also advise the Meeting of the Parties regarding the further development of the programme of work and its adaptation to changing circumstances. In pursuance of those responsibilities, at its sixth meeting the Working Group requested that the present regional report on the status of implementation of the Protocol be prepared by the secretariat for submission to the second session of the Meeting of the Parties (see ECE/MP.WH/WG.1/2013/2−EUDCE/1206123/3.1/2013/WGWH/06, forthcoming).

The report summarizes information on the status of implementation of the Protocol from 23 national summary reports submitted during the second 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 2014−2016 (ECE/MP.WH/2013/L.1−EUDCE/1206123/3.1/2013/MOP-3/08).

Contents

Introduction

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 different areas in order to achieve or maintain a high level of protection of human health and well-being and for the sustainable management of water resources.

2. Additionally, article 7 of the Protocol states that Parties must collect and evaluate data on their progress towards the achievement of the targets set and how this has contributed towards preventing, controlling or reducing water-related disease. Every three years, Parties have to review the progress made in achieving the targets set and publish summary reports containing an assessment of that progress. Such reports must be prepared and submitted to the joint secretariat in accordance with guidelines established by the Meeting of the Parties.

3. A first, pilot reporting exercise was conducted in 2009−2010 (with reports submitted in 2010). Guidelines and a template for summary reports in accordance with article 7 were prepared by the Task Force on Target Setting and Reporting and adopted by the Meeting of the Parties at its second session (Bucharest, 23–25 November 2010) (ECE/MP.WH/2010/L.5–EUDHP1003944/4.2/1/7 and ECE/MP.WH/4–EUDHP1003944/4.2/1/06, forthcoming). The Meeting of the Parties also adopted *Guidelines on the Setting of Targets, Evaluation of Progress and Reporting*[1] (Guidelines on the Setting of Targets) to assist Parties with setting targets in all 20 reporting areas.

4. The Working Group on Water and Health at its fifth meeting (Geneva, 11–12 October 2012) decided to organize the second reporting exercise based on the guidelines and template for reporting and set 29 April 2013 as the submission deadline.

5. This regional implementation report was prepared on the basis of 23 summary reports submitted by 20 Parties and 3 non-Parties to the Protocol.[2] No reports were received from Albania, Luxembourg and Portugal. The reports of Belgium, France and the Netherlands were submitted too late to be considered in this analysis.[3]

6. The reports submitted vary in terms of the length, level of detail and quality of the information provided. It was not within the mandate of the joint secretariat to carry out extensive further research to locate information that should have been included in the summary reports but was not, or to check the information provided. Thus the present document should be read with these limitations in mind and should not be regarded as a comprehensive, exhaustive or independent review of the status of implementation of the Protocol.

[1] United Nations publication, Sales No. E.10.II.E.12. Available from http://www.unece.org/env/water/publications/pub.html.

[2] Reports were received from Armenia (non-Party), Azerbaijan, Belarus, Bosnia and Herzegovina, Croatia, Czech Republic, Estonia, Finland, Georgia (non-Party), Germany, Hungary, Latvia, Lithuania, Norway, Republic of Moldova, Romania, Russian Federation, Serbia, Slovakia, Spain, Switzerland, Tajikistan (non-Party) and Ukraine.

[3] The reports are available from http://www.unece.org/env/water/protocol_second_reporting_cycle.html.

I. Procedural aspects of the second reporting exercise

7. Some minor additions to the previous template were made for the second reporting exercise. Those relate to the number of classified water bodies, the number of water bodies and the quantitative and chemical status of groundwater.

8. The quality of the national summary reports has substantially improved as compared with the reports from the pilot reporting exercise with regard to the descriptive parts of the reports, the clarity and precision of the data and the thematic issues presented. Some countries included case studies in their reports, which made them more interesting and understandable (e.g., Switzerland and Ukraine).

9. Further, answers provided by some States under different sections of the summary reports might serve as good examples for others in future reporting cycles. However, some reports failed to address all the questions in the template or provided incomplete information regarding the setting of targets, measures taken to achieve them and the assessment of progress.

10. In the previous reporting cycle, the national summary reports varied considerably in accordance with the preparation process used. While some clearly appeared to be the product of interministerial and external consultations, others seemed to have been compiled by just one or a few persons. Furthermore, it was also sometimes difficult to trace the origin of information, since the person or institution submitting was not apparent. This was not the case in the current reporting exercise, where several responsible organizations were involved in the elaboration of the reports and all the reports had been clearly approved by the relevant national authorities.

11. In addition, Armenia, Azerbaijan, Georgia, Lithuania, Romania, Switzerland and Ukraine provided information about the involvement of the public in the reporting process. States also elaborated on the circumstances that were relevant for better understanding their reports, e.g., the structure and responsibilities of institutions and some institutional constraints.

II. General aspects of the target-setting process

A. The target-setting process in the different countries

12. Eight countries[4] provided information on the targets and target dates they set during the pilot reporting exercise and its follow-up.[5]

13. In the second reporting cycle, 14 States claim to have set targets under the Protocol. However, during the detailed analysis of the reports, it appeared that some of these targets were still in draft form or had not yet been approved. Some States also listed targets from their relevant national legislation without explaining whether those targets translated into the adoption of specific targets under the Protocol and were set in the spirit of the Protocol's provisions. Croatia officially adopted national targets under the Protocol in the reporting period.

[4] Czech Republic, Finland, Germany, Hungary, Netherlands, Republic of Moldova, Slovakia and Ukraine.

[5] See http://www.unece.org/environmental-policy/treaties/water/protocol-on-water-and-health/about-the-protocol/envwaterpwh-targets-set.html.

14. The process of setting targets was in progress in Armenia, Belarus, France, Lithuania, Norway, Serbia, Spain and Tajikistan. Three Parties had not set targets. There were inconsistencies in some reports with regard to what had been reported on target setting in the pilot reporting exercise. That could be explained by the improved understanding of Parties of the difference between setting targets under the Protocol and the availability of some national targets as part of national water and sanitation programmes.

15. Nine Parties from the European Union (EU) that claimed to have set targets under the Protocol (Croatia, Czech Republic, Estonia, Finland, Germany, Hungary, Netherlands, Romania and Slovakia) stressed that the majority of targets required by the Protocol overlapped with those of relevant EU directives.[6] The transposition of EU Directives into national legislation, however, does not correspond to setting targets in accordance with the Protocol.

16. The implementation of the Protocol, including target setting, is the main responsibility of the ministry of health and/or the ministry of environment (sometimes one of them having a leading role). Additional ministries involved vary between countries and might include ministries responsible for housing and spatial planning, agriculture, the interior, foreign affairs, economic development, infrastructure or regional development. Other partners included water and health institutes and research centres and non-governmental organizations (NGOs).

17. The majority of countries clearly defined the terms of reference of the coordination mechanism, its mandate and the distribution of responsibilities, but a few did not indicate whether and how a coordination mechanism had been established.

18. As was noted in the previous reporting cycle, the legislative basis for the implementation of the Protocol (national and/or EU legislation) was generally in place. Some countries had updated relevant national legislation, responsible authorities and related official documents. Generally, the information on legislation was descriptive and not analytical. Targets and target dates were generally in line with or identical to other international legal documents, especially EU directives. Consistent with existing national legislation, a number of countries in Eastern Europe, the Caucasus and Central Asia expressed their intention to adopt EU legislation in different areas covered by the Protocol.

19. Countries either omitted cost-benefit analyses for target setting in the reports or said they had not been carried out. However, a few countries had taken into consideration some of its aspects (Belarus, Russian Federation, Slovakia, Switzerland and Ukraine).

B. Public participation in the target-setting process

20. Public participation in the target-setting process had been ensured in almost all countries. However, three States specifically mentioned the absence of a mechanism for the involvement of the public in setting targets and target dates. The public participated in the process through relevant coordination mechanisms that provided for the participation of academic institutions, water supply companies and NGOs.

21. Means to ensure the availability of information and the possibility of public participation included public presentations and media reports, public hearings and conferences. Almost all countries mentioned that the documents were available on the websites of the corresponding ministries and organizations.

[6] For a list of directives relevant to the different target areas set out in article 6, paragraph 2, see the Guidelines on the Setting of Targets.

22. Some NGOs organized consultations with the public and reported the outcomes to the coordination mechanisms (Croatia, Czech Republic and Ukraine). NGOs also carried out special projects to educate the public about water and health-related problems and the legal aspects of the protection of water resources.

C. Consideration of emerging issues such as climate change

23. Emerging issues such as climate change were addressed by some countries in very general terms. Germany considered the regulation of legionella in water as an issue for consideration, while Norway cited parasites and mycotoxins in water as emerging problems. The Russian Federation had developed a methodology to calculate the risk of and damage caused by climate change that accounted for increased morbidity and mortality in high-risk populations. In Finland, a risk-based assessment and management approach (water safety plan) was to be included in the drinking-water legislation within the next few years.

24. The EU Floods Directive[7] played an important role in planning for many countries and required the elaboration of flood risk maps and associated management plans. For example, Slovakia considered climate change, water scarcity and drought and new chemical substances as emerging issues related to water and health at the national level.

III. Common indicators

25. Since many Parties had not set targets, the part on common indicators often received most attention. The range of the reported indicators varied between countries, but the information was not easily comparable as different methodologies were used and supporting information was often lacking. To assess trends, all Parties were requested to use 2005 as the baseline year, if possible. That request was not followed or possible in all cases.

26. However, the quality of the data in almost all reports was better than in the previous reporting cycle. Some Parties included data both for the baseline year and benchmarking values from the first reporting cycle, which made trends more visible and improved the quality of the report.

27. The reports revealed challenges related to the availability and comparability of data. Some countries had a centralized data collection system for nationwide water quantity and quality indicators, while others possessed data available only regionally, making the comparison and analysis of data difficult.

A. Quality of the drinking water supplied

28. Access to drinking water and sanitation varied between countries and was, as expected, higher overall in urban areas than in rural ones. Nine countries reported an increase in the coverage by drinking-water supplies with respect to the baseline year and/or the 2010 reports. For example, Georgia substantially improved the access rate from 80 per cent (2010) to 98 per cent (2013). A decrease in coverage was noted in some instances without a clear explanation of the possible causes.

[7] Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks

29. Most national reports provided information on their national standards and on drinking-water supply systems both for urban and rural settings. Those included references to the EU Drinking Water Directive[8] and, in some cases, to the World Health Organization (WHO) guidelines for drinking-water quality. Some countries had more stringent national standards than the limits appearing in the Drinking Water Directive. The quality of drinking water in small-scale water supply systems was mostly not included or was unknown in several countries, which could be addressed in future target setting.

30. The percentage of samples that failed to meet the national standard for Enterohaemorrhagic Escherichia coli (EHEC) and Enterococci was measured by the WatSan_S2 indicator.[9] The indicator showed that the microbial quality of drinking water had improved in most countries, with five stressing that the quality had degraded and one not providing any information. The Enterococci standard had not been incorporated in national standards, and was not measured in four countries in Eastern Europe, the Caucasus and Central Asia.

31. The chemical quality of drinking water was generally measured by the WatSan_S3 indicator,[10] but some countries did not report on all the suggested parameters and failed to provide clear accompanying explanations. Thus, comparative interpretation was difficult. One example was the data submitted on nitrates and nitrites, where some gave the combined values while others presented the data separately.

32. The analysis showed a generally improving trend. The occurrence of nitrite non-compliance had been reduced significantly in many supply zones of Hungary, for example, following a nitrite action programme (since 2007). However, there were some exceptions, including increases in nitrate and nitrite in the Czech Republic, Lithuania and Serbia; fluoride in Finland; iron in Hungary, Romania and Serbia; lead in Hungary; and arsenic in Romania. In Croatia, the chemical quality worsened as compared with 2009 (except for arsenic and lead). Romania, Slovakia and Ukraine expressed concern about high concentrations of nitrate and nitrite and the cases of methemoglobinemia. In Switzerland, elevated levels of heavy metals occurred in drinking water as a result of domestic installations and fittings, mainly in new buildings.

33. The additional health-relevant chemical parameters of special concern on the national or local scale were usually the same as those stated in the 2010 reports. The selection criteria for those were seldom given, nor the number of samples on which compliance was based. Some countries reported on five additional parameters as suggested, while others selected between one and three. Additional chemical parameters that were considered included manganese, pesticides (both total pesticides and specific metabolite products, such as desethylatrazine), ammonium and ammonia, trihalomethanes, polycyclic aromatic hydrocarbons, mercury, cadmium, nickel, cyanide, detergents, chlorides and sulphates. Some countries changed the order of additional chemical parameters or added new ones without providing a clear explanation. The selection criteria were especially unclear when the values provided were reported as not detected (zero). Sometimes the data highlighted a problem of a high concentration of some chemical without setting a corresponding target.

34. The comparison of additional chemical parameters in water with the baseline year was possible only occasionally, since the baseline data were often missing or the additional chemical parameters had changed since the previous report. Additionally, in many cases

[8] Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption.

[9] See the Guidelines on the Setting of Targets.

[10] Ibid.

countries did not clearly differentiate between the data from centralized and decentralized or rural systems; the statistical base for the parameters was given only in a few cases.

35. The quality of drinking water had worsened in terms of additional chemical parameters for: manganese in Estonia and Serbia; sulphate, boron and manganese in Hungary; sulphate, ammonium and chloride in Latvia; and for sulphate and ammonium in Lithuania.

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

36. The analysis of reported data on the incidence of water-related disease depended on the accuracy and reliability of the surveillance systems. Low reported values had not necessarily reflected reality. Apparently the data were not always available or no centralized collection of data occurred. Generally, cases of infectious diseases had decreased. Waterborne outbreaks were reported in only a few countries. No information was provided for other exposure routes such as recreational or irrigation waters.

37. EHEC had not generally been registered in countries in Eastern Europe, the Caucasus and Central Asia and only in some EU countries. One Party reported a significant increase of EHEC cases. In some reports, the imported cases of infectious diseases and waterborne outbreaks were not differentiated. Very few imported cholera cases were reported and the number of typhoid cases was also low. Incidence of shigellosis and hepatitis A decreased (except for two countries) as compared with the 2010 data.

C. Access to drinking water

38. Access to drinking water was defined either in accordance with the EU Drinking Water Directive or related to the suggested indicator within the WHO/United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). As in the 2010 reports, access to drinking water was reported to be high both in urban and rural areas in Western Europe, but lower in the Eastern part of the region (also partly including some new EU member States), in particular in rural areas.

39. In some cases, information on how access to drinking water was measured was missing. Access generally increased in nine countries but decreased in two countries (the reason was not provided but could be due to reporting procedures or methodology). The data mainly represented centralized drinking-water supplies. Access to drinking water was reported as 100 per cent in Croatia, Finland, France, Germany, the Netherlands, Norway and Switzerland.

40. As in the 2010 reports, some countries highlighted issues regarding small-scale water supplies, including with regard to monitoring responsibilities and management.

D. Access to sanitation

41. The definition of access to improved sanitation used in the summary reports followed the same dichotomy as for drinking water — i.e., in accordance with the relevant

directive[11] or referring to the JMP definition — although this was not included in the Protocol template.

42. Total access to sanitation increased in many countries. Access in Belarus, for example, increased by 10 per cent. However, a decrease was noted in rural areas of Armenia.

43. Many of the reported values differed from those reported in 2010, due to an update of the boundaries of agglomerations and the related population. The data mainly showed the percentage of households with access to flush toilets. Access to sanitation was 100 per cent in Germany and Norway. The EU countries mainly provided total access to sanitation, as separate data for urban and rural populations were not available.

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

44. The effectiveness of management, protection and use of freshwater resources varied across the EU member States, but followed the criteria of the EU Water Framework Directive (WFD)[12] and the Groundwater Directive.[13] For non-EU countries the information was based on national standards.

45. As the WFD required the status of water bodies to be evaluated only every six years, six EU countries did not submit updated data. However, the majority of surface water in EU countries was classified as good in relation to its chemical status. Data on chemical quality of surface water was not provided by one non-EU country and quality standards for water bodies had not been developed in one non-EU country.

46. A general trend was the improvement of surface water quality, but the data sets and corresponding criteria differed substantially.

47. In Bosnia and Herzegovina, the quality of surface water was defined by five classes according to physical-chemical and microbial parameters; Croatia classified waters in five categories depending on four indicators (oxygen, nutrients, microbial and biological parameters); and the Republic of Moldova had seven categories (from very clean to heavily polluted) and a slightly different wording for hydro-chemical quality. Belarus gave a quantitative summary of pollutants in the discharged national wastewaters, as related to the surface water eutrophication indicators, and indicated a substantial improvement over the past five years: nitrate had been reduced by 18 per cent; total phosphorus by 30 per cent; and petroleum by 47 per cent.

48. In general, the main impacting factors were nutrients from point and diffuse pollution sources, hazardous substances and hydro-morphological alterations. Microbiological pollution was mentioned in only a few reports. The treatment, processing and recycling of industrial sewage sludge was still an acute issue in non-EU countries. A large part of the wastewater treatment plants (WWTPs) required reconstruction and transition to new and more efficient technologies.

[11] Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment.

[12] 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.

[13] 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 .

49. The chemical status of groundwater was overall good in the majority of EU countries: only Germany had a high percentage of "poor status" groundwater in both reports (37.1 per cent).

50. Groundwater bodies were classified according to their degree of mineralization in some non-EU countries (medium fresh water, low mineralized, medium, high and very high). One non-EU country lacked national classification and monitoring of groundwater. The Republic of Moldova listed the main national and regional problems, for example, with high content of fluoride, sodium, strontium, hydrogen sulphide, iron and nitrate and microbial contamination.

51. It was mainly EU countries that submitted data on the number and volumes of water bodies. Many countries provided information on water use, with some using the water exploitation index and others using other parameters (e.g., percentage of abstraction by sectors). In both the 2010 and 2013 reports, use in the industrial sector accounted for the largest amount in the EU countries (often including energy use). In some countries in Eastern Europe, the Caucasus and Central Asia, domestic use of water increased in 2013 while agricultural use was not as high as reported in 2010. Three countries did not provide data on the water exploitation index.

IV. Targets and target dates set and assessment of progress

52. Information on targets and target dates set was mainly given by Parties that had set targets or were in the process of setting them. Parties and other States that had not yet set targets failed to clearly address the relevant questions in the template.

53. Fourteen countries reported they had set targets (thirteen Parties and one non-Party) and seven reported that they were in the process of being set (five Parties and two non-Parties). Slovakia had already revised and updated its national targets under the Protocol. Hungary had postponed the revision of its targets and target dates due to changes in the Government and the legal framework that affected the implementation of the Protocol.

54. In some countries targets had been set but not officially adopted. Only a few countries complied with the requirement to set targets in all target areas. When targets had not been set or where the target setting was in progress, the national reports mainly highlighted the current situation and the legislative background, but failed to account for measures taken. The explanations of the basis for the selection of targets were generally missing.

55. For EU countries, relevant EU directives had been the basis for setting targets and target dates. For non-EU countries, national programmes on water and sanitation and management of water resources served as reference documents.

56. In some cases, targets had been used as a declaration of intent or as an identification of a future area of work. In the 2013 reports, some countries changed the wording of the previously reported targets or added some specific indicators and deadlines.

57. Some targets had been formulated without specific deadlines or were specified as "continuous". Some countries had also set intermediate targets (art 6, para. 4), which had not been the case in the pilot reporting exercise.

58. It appeared that targets or deadlines had been revised in some cases between 2010 and 2013, though this was not generally mentioned explicitly. It may have been caused by missing documentation on targets or their different interpretation during national reporting exercises. The majority of countries that reported their achievements also provided statistics on indicators. The Czech Republic, Germany, Finland, the Netherlands, Norway, Slovakia

and Switzerland reported that they had met some of the targets and gave brief examples of improvements, but new targets in those areas were mostly not listed.

59. In some instances, although the targets had not been achieved, the corresponding target dates had not been revised. Slovakia and Germany referred to some targets with deadlines in 2012 and 2011, respectively. In general, the lack of financial resources was a reason for postponing a target date. Hungary also mentioned political changes in the country. Some countries provided old data without explanation.

60. Targets and the background information that had been posted on the Protocol's website for eight countries differed in some cases from the information provided in the reports. In some cases the same targets were reported under different target areas.

Article 6, paragraph 2 (a)

61. The quality of drinking water was an area of major importance for most of the countries and was addressed in all reports. For EU countries the legal reference was the Drinking Water Directive and most of the targets were linked to ensuring compliance with it.

62. In 2010, targets had aimed at increasing the coverage of drinking-water supply, while in 2013 targets were mainly set on reducing the negative microbial and chemical impacts of drinking-water supply or addressing specific chemical parameters (for example, arsenic in Croatia and heavy metals, pesticides and manganese in Romania).

63. Specific targets were also set on: drinking-water safety in schools (Republic of Moldova); replacement of lead pipes (Czech Republic); improvement of the registration of small-scale water systems and the quality of drinking water supplied by them (Croatia); revision of legislation (Germany); implementation of water safety plans (Republic of Moldova); maintenance of the infrastructure and proper management of water supply (Switzerland); and publishing awareness materials (Czech Republic, Estonia, Germany, Slovakia).

64. Two countries reported almost the same targets as in 2010. Slovakia provided a case study about the problem of nitrates in a public water supply system in a remote village.

65. Some common measures proposed included the provision of relevant legislation and adequate investments to increase the coverage of the drinking-water supply and reduce non-compliance with the drinking-water quality standards. A number of countries had successfully met the targets, while two Parties had partly accomplished them (Czech Republic, Germany). Two other countries had postponed their target dates. Hungary suggested a possible future target on improving equitable access to water and sanitation.

Article 6, paragraph 2 (b)

66. With regard to reducing the scale of outbreaks and incidence of infectious disease potentially related to water, targets were set by different countries on: the implementation and use of modern technologies for early warning and adequate response actions in emergency situations (Azerbaijan); maintaining zero incidence of cholera and typhoid (Belarus, Georgia, Republic of Moldova, Ukraine); maintaining the incidence of acute hepatitis A at a lower level (Belarus, Georgia, Republic of Moldova, Ukraine); reduction of the incidence of infectious diseases (0.01 per cent Finland, less than 0.1 per cent in Norway); raising awareness on prevention of infectious diseases (Czech Republic); improved methods and evaluation of water-related disease outbreaks (Latvia); establishment of an information system on surveillance of non-infectious diseases (Republic of Moldova); publication of a summary of identified water-related disease outbreaks (Czech Republic); improvement of the effectiveness of the surveillance system

(Hungary); and development of guidelines for operation and security of small-scale water supply systems and development of recommendations for the public (Georgia).

67. Related actions included the adoption of legislative measures, strengthening of monitoring, data collection and laboratory capacities, awareness-raising campaigns and capacity-building for the operation of small-scale drinking-water supplies. Georgia had introduced vaccination against rotaviruses, as well as water safety plans in accordance with the applicable WHO recommendations. Ukraine provided a case study on a cholera outbreak and how it had been successfully managed.

68. Most Parties had been successful in meeting the targets under this area. Some targets had been met in the Czech Republic and Finland, though the former postponed some of the target dates. The incidence rate for hepatitis A in the Republic of Moldova had been reduced by a factor of 140.

Article 6, paragraph 2 (c)

69. For access to drinking water, targets mostly related to: the provision of drinking water from centralized systems in both urban and rural areas (Belarus, Czech Republic, Georgia, Latvia, Lithuania, Norway, Romania, Slovakia); access in schools and preschool facilities (Republic of Moldova); the development and adoption of minimum standards to ensure clean water and utility services (Spain); and provision of safe water (Croatia, Estonia, Finland).

70. Estonia highlighted the availability of information to the public and Hungary the elaboration of a social subsidy system for implementing the human right to water and sanitation as important areas for target setting. In addition, Lithuania brought forward the issue of water tariffs and Switzerland underlined access to drinking water during extreme weather events and ensuring the continuity of services in emergency situations. Some other targets concerned an improvement in the availability of data, including for small-scale and individual supplies.

Article 6, paragraph 2 (d)

71. Concerning access to sanitation, countries mostly considered targets to increase access to centralized and local sanitation systems, with further specifications for schools and preschools (Republic of Moldova, Ukraine). Some additional targets included the construction of new WWTPs (Czech Republic) or rehabilitation of old ones and renovation of a number of sewerage networks. Estonia brought up the issue of general assurance of the quality and adequacy of wastewater treatment. The Republic of Moldova and Ukraine specifically included the promotion of ecological sanitation toilet systems in their targets. Targets had not been set by seven countries.

72. In general, countries reported an increase in access to sanitation and progress towards meeting the targets, but some countries noted that the achievement of targets had not been possible due to a lack of resources. The Czech Republic had met one of the targets and had to postpone the other one. The ecological sanitation approach had been introduced by the several NGOs in countries in Eastern Europe, the Caucasus and Central Asia.

Article 6, paragraph 2 (e)

73. Twelve countries set targets in the area of levels of performance of collective systems and other systems for water supply and sanitation. However, some targets were the same as for access to water and sanitation. The information provided was similar to that included in the 2010 reports.

74. Some targets set and issues mentioned for drinking-water supplies included: the need to decrease water losses; water tariffs; water demand management; safety zones for water abstraction of public water supply; and enhanced reliability of water supply systems.

75. The reports addressed management issues only partly (two Parties), for example, the continuity of drinking-water supply, pipe failure rates and the number of complaints received. Parties chose to focus mostly on technical issues, such as restructuring and optimization of utilities and water supply systems, exchange rates of pipelines and rehabilitation and construction of new WWTPs. No Party had met the targets. Switzerland presented a case study on a small-scale drinking-water supply.

76. The targets also covered issues such as the reduction of pollutants discharged into water bodies, reduced eutrophication of inland waters and ensuring the quality of water supply and sanitation services. For sanitation aspects, targets also covered the construction and maintenance of well-functioning collecting systems and WWTPs. Actions mainly related to the improvement of infrastructure. Switzerland had achieved its target.

Article 6, paragraph 2 (f)

77. Few Parties had set targets with regard to the application of recognized good practices to the management of water supply and sanitation, including the protection of waters used as sources for drinking water, and these were almost the same as in the 2010 reports. The targets related to the reduction of discharges of untreated wastewater for the protection of surface and groundwater from nutrients. Lithuania set a target on the promotion of good practices for the management of water supply, directed towards small and medium-sized enterprises The Republic of Moldova set targets on the regionalization of water utility companies and the establishment of associations to improve the provision of drinking-water services of adequate quality. Norway set targets on the vulnerability analysis of systems, while Romania and Switzerland considered the establishment of sanitary protection zones for all drinking-water sources a priority.

78. Sanitation-related targets included the development of fully functional systems, appropriate discharge of treated wastewater and better functionality in areas where degradation of the water status had occurred (Croatia) and the reduction of overflows from systems through good management practices and the construction of WWTPs (Finland, Romania, Spain, Switzerland). Little information was provided on actions taken.

79. Switzerland reported on strengthening its water protection policy by providing direct payments to farmers that provided specific ecological services.

Article 6, paragraph 2 (g) (i)

80. Targets on the occurrence of discharges of untreated wastewater from wastewater collection systems focused on discharges into water bodies. For Finland, owing to frequent heavy rains, the need for enhanced sewer rehabilitation had also been highlighted nationally.

81. Related actions included the adoption of legislation, application of permit systems and adequate investments. Targets on the treatment of wastewater had been achieved in Belarus and the Czech Republic.

Article 6, paragraph 2 (g) (ii)

82. Targets on the occurrence of discharges of untreated storm water overflows from wastewater collection systems generally aimed at the treatment of polluted storm water to reduce the recipient impact (on surface waters and groundwater). Finland had set a target on responsibilities in this area and Switzerland on the implementation of a survey to collect

data on storm water treatment and appropriate measures to prevent infiltration of agricultural pesticides and nutrient run-off from agricultural land and from drainage systems. Related actions included the adoption of relevant legislation and the preparation of a guidebook on the principles of storm water management.

Article 6, paragraph 2 (h)

83. For the quality of discharges of wastewater from treatment installations the main focus was on the reduction of volumes of insufficiently treated wastewaters discharged into water bodies. Finland highlighted the importance of hazardous substances and hygienic risks from urban wastewater. In most of the new EU member States, significant progress had been made in this area, while in countries in Eastern Europe, the Caucasus and Central Asia treatment facilities were still lacking or not functioning properly.

84. Related actions were often linked to national legislation and investments, as well as to improved monitoring.

Article 6, paragraph 2 (i)

85. A limited number of countries had set targets on disposal or reuse of sewage sludge from collective systems of sanitation or other sanitation installations. Targets were aimed at reducing the quantities of dangerous substances at the source of pollution through the implementation of water protection measures, as well as through controlled operation and revised legislation for the disposal of sludge.

86. Practices for handling sludge differed across countries, including soil improvements and landscape management, energy production, composting and storage. The use of sewage sludge in agriculture was permitted in eight countries based on special waste permits, supervision and monitoring by accredited laboratories. It had been prohibited in others. A legislative base was normally in place. As components for a sludge-management strategy, countries mentioned the need for risk assessment in relation to contaminants, leakages, drainage and erosion and plant nutrient recovery.

87. Regarding the quality of wastewater used for irrigation purposes, most countries had not set targets in this area and many prohibited the reuse of wastewater for irrigation. Only the Republic of Moldova had set a target on the development of norms for the reuse of wastewater from WWTPs for irrigation purposes.

Article 6, paragraph 2 (j)

88. Concerning the quality of waters used as sources for drinking water, countries focused on measures for the protection of groundwater and surface water, such as legal frameworks, the implementation of the quality requirements, monitoring of raw waters intended for drinking water, the creation of integrated information systems and scientific research. Romania needed training for staff from public health and water management directorates on legal provisions and to ensure effective intersectoral collaboration. Hungary was developing protection plans. One country chose to postpone the target date.

89. Regarding the quality of waters used for bathing, most countries reported the same targets as in 2010, but without referring to the WHO guidelines for safe recreational water environments. Many reports underlined measures to inform the public about bathing water quality and risk-management measures to prevent health hazards, especially when predictable short-term pollution or abnormal situations occurred, including through the media and NGOs. Slovakia had met a target on implementation of a new information system on the quality of bathing water in natural settings as well as in artificial swimming pools. In general, the quality of bathing waters was good in EU countries, or at least clear management and protection measures were in place. Romania suggested developing a guide

that included new scientific developments and WHO recommendations in relation to bathing water facilities, pools and spas.

90. Mainly EU Parties and one non-EU country had set targets that related to the quality of waters used for aquaculture and the protection of water bodies used for food production. The EU directive on surface freshwater[14] had been implemented to reach compliance with the quality of waters for salmonid and cyprinid waters. One country chose to postpone the target date. Some countries stated that the area was not relevant, which might have been due to misinterpretation of the term "aquaculture".

Article 6, paragraph 2 (k)

91. Targets set on the application of recognized good practice in the management of enclosed water generally available for bathing included ensuring the quality of water and monitoring enclosed waters intended for public use, accounting for health and environmental risks. Countries referred to EU directives and national legislation for the quality and surveillance requirements. In Finland, employees at premises with enclosed waters in swimming pools and spas had to pass a proficiency test on plant technology and hygiene. Germany had set a target on updating the technical regulations on swimming pool water. A guidance document on the prevention of the legionella risk had been published in Hungary.

Article 6, paragraph 2 (l)

92. For the identification and remediation of particularly contaminated sites, targets were set to update registration systems of contaminated sites through inventories that included preliminary assessments of possible health and environmental risks and to remediate contaminated sites. Similar targets were reported in the pilot reporting exercise. The hazards mentioned included persistent organic pollutants, petroleum products and organic chemicals, pesticides, radioactive substances, hydrocarbons, contaminated sediments in harbours and run-off from mining and landfills. One country postponed the implementation of the target.

93. Related measures included the revision of legislation, remediation of contaminated sites and provision of financial means. Mainly EU countries set targets in this area. One Party mentioned that its legislation lacked a definition of a "contaminated area" and that there was no obligation to deal with historically polluted places.

Article 6, paragraph 2 (m)

94. To ensure the effectiveness of systems for the management, development, protection and use of water resources, targets were set on the development and approval of schemes for the integrated use and protection of water resources, implementation of integrated water resource management (IWRM) and monitoring and vulnerability assessment of drinking-water sources. Within IWRM, steps had been taken to adopt sustainable water use in economic, environmental and social terms. The relevant requirements had generally been ensured by legislation. Some countries implemented water management plans and ensured public participation. Some stated that relevant targets were set in other areas under the Protocol.

[14] Council Directive 75/440/EEC of 16 June 1975 concerning the quality required of surface water intended for the abstraction of drinking water in the Member States.

Other targets set

95. Some countries set targets linked to public information, such as the Czech Republic, Finland, Georgia, Germany, Hungary, the Republic of Moldova, the Russian Federation, Slovakia and Ukraine, as part of the implementation of articles 9 and 10 of the Protocol.

V. Overall evaluation of progress achieved in implementing the Protocol

96. One area of concern in the pilot reporting cycle had been the involvement of the public. The 2013 summary reports were more complete than in the previous reporting cycle regarding information related to articles 9–14 of the Protocol. Some reports, however, were still incomplete. Public information was generally more available in EU countries, but several Parties reported that public involvement was low. Clearing houses (resource centres) were planned to be established in Georgia and publications on the target-setting process were developed in the Republic of Moldova and Ukraine.

97. Hungary, which had held the EU Presidency in the first half of 2011, had aimed to promote the ratification of the Protocol by other EU States and invited the European Commission to consider including the Protocol in the EU regulatory framework.

98. Almost all countries that had been involved in international cooperation or in international joint actions reported on them. Examples included some cases of successful transboundary cooperation between the Republic of Moldova, Romania and Ukraine and between Croatia and Hungary. In general, the emphasis was on the results achieved, but some Parties also elaborated on possible future steps. Overall, progress was achieved.

99. Limited financing to implement targets was mentioned as a constraint in implementing the Protocol, as separate funds were not ensured.

VI. Lessons learned and conclusions

A. General conclusions

100. The second reporting exercise was more successful than the pilot, and generally the reports covered the subject areas better and were informative and in compliance with the template. It is commendable that national summary reports were submitted by 23 out of 26 Parties, and especially that all Parties and three non-Parties from Eastern Europe, the Caucasus and Central Asia reported.

101. There were still some delays in reporting, but less than in 2010. Some reports had limited information on certain items and did not address all the elements in the reporting template. The information provided still varied, which limited the assessment of discrepancies and similarities. Although more information was provided, a comprehensive and full assessment of the situation was not possible. However, some useful conclusions may be drawn for further actions.

102. It was clear that all Parties were interested in moving towards the implementation of the Protocol and more Parties had reported on the targets set. The number of target areas addressed, however, varied across countries. It was unclear whether this was the result of national priorities or the lack of information or monitoring capability, or due to financial constraints.

103. The same targets were sometimes provided under different target areas. That would require further clarifications for the next reporting cycle.

104. In the second reporting cycle the targets were more often linked to common indicators. Indicators, however, were not fully harmonized in terms of methodology, national guidelines and legislation. For example, some countries lacked data or national standards for the implementation of relevant standards for Enterococci. It is recommended that Parties include background assessments and prioritization criteria each time a new chemical parameter is introduced.

105. The quality of drinking water was better addressed than in the 2010 reports, where the emphasis had largely been on access to drinking water.

106. The main challenges to implementation were the cost of structural changes needed for water and sanitation, but also the lack of institutional capacities and low intersectoral cooperation in all countries, but especially in Eastern Europe, the Caucasus and Central Asia.

B. European Union[15] countries, Norway and Switzerland

107. The EU countries, Norway and Switzerland have developed their legislation in accordance with the EU directives dealing with most target areas under the Protocol (drinking water, sanitation, water management, bathing water and wastewater treatment). This subregion could show more progressive achievements in target areas compared with the other two subregions. These countries addressed challenges related to climate change to a higher degree. They increasingly relied on public participation through electronic means; though this approach was good, if used exclusively it could limit transparency and opportunities for debate and feedback.

108. Some EU countries had limited their implementation of the Protocol to EU directives although the Protocol touches upon areas that are not regulated by them. Furthermore, the Protocol offers the opportunity to deal with specific or emerging problems beyond the scope of EU legislation or with a different approach. EU countries, Norway and Switzerland should therefore consider these aspects when setting targets.

C. Countries in Eastern Europe, the Caucasus and Central Asia[16]

109. Significant progress has been achieved in most countries in Eastern Europe, the Caucasus and Central Asia in the development and enforcement of relevant institutional and legislative frameworks. This was partly due to financial support and external consultations implemented in the framework of the Project Facilitation Mechanism. It was also evident, however, that several Parties in the subregion faced difficulties in collecting the required information due to the absence of standards or insufficient monitoring and surveillance systems.

110. Positive trends were apparent in the increasing use of various electronic tools to ensure public participation. However, there was still a need among the countries to establish and operate more efficient and easily accessible information systems.

[15] Belgium, Croatia, Cyprus, Czech Republic, Estonia, Finland, France, Germany, Hungary, Latvia, Lithuania, Netherlands, Portugal, Romania and Slovakia.

[16] Armenia, Azerbaijan, Belarus, Georgia, Republic of Moldova, Russian Federation, Ukraine and Uzbekistan.

111. There was recent progress in setting and implementing targets in Armenia, Georgia, the Republic of Moldova, Ukraine and Tajikistan, thanks to projects funded under the Project Facilitation Mechanism. However, their practical implementation remained a major problem due to a lack of financial, technical and human resources. The majority of countries implemented the Protocol within the framework of their National Policy Dialogues on Integrated Water Resources Management and Water Supply and Sanitation operating under the EU Water Initiative.

D. South-Eastern Europe[17]

112. Bosnia and Herzegovina and Serbia were new Parties to the Protocol and targets had not been set. However, both Parties provided their national reports. Although Serbia became a Party only in 2013, it stated that the target setting process was already in progress. This served as a good example for other countries that had delayed the process.

E. Conclusions related to the reporting exercise

113. In general, the quality of the reports was better in the second reporting exercise. Many countries provided targets that were specific, measurable, achievable, realistic and timely. Intermediate targets were also provided. However, in some cases, the target deadlines were unclear. Two countries also deviated from the agreed template.

114. The common indicators were better presented and clearer in the 2013 reports than in 2010. Most countries provided their standards, but explanations and the related background information were often lacking, which negatively impacted their comparability.

115. In many cases the baseline conditions and target dates were not specified. This limited the assessment of progress to achieve targets, the obstacles in implementing them and reasons for not setting targets under specific topics and in certain geographical areas (national or local).

116. Only a few countries stated that they met the targets. The information was also limited on the impact of targets. Some countries listed targets with expired deadlines without explaining why they had not been met or why they had been postponed.

117. On the positive side, more information was provided on measures adopted and the progress made than in the 2010 report. Progress was especially evident where intermediate targets were set and progress presented.

118. Several challenges were mentioned for future action, for example: safeguarding the performance capability of the sewerage systems and sewage treatment plants; adaptation of water resources to climate change; estimation of cost-effectiveness; access to and quality of water and sanitation especially in rural areas; and equitable access to water and sanitation.

119. External support and consultations to set targets under the Protocol had in general been highly effective and valuable.

120. This summary report could serve as a basis for policy discussions and decisions. Efforts to further implement the Protocol need to be continuous and the successes and achievements need to be visible in the national reports.

[17] Bosnia and Herzegovina and Serbia.