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Fourteenth session

Geneva, 7 and 8 November 2013

Report of the fourteenth session of the Working Group on Environmental Monitoring and Assessment

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I. Introduction

A. Background

1. The Working Group on Environmental Monitoring and Assessment was established by the United Nations Economic Commission for Europe (ECE) Committee on Environmental Policy (CEP) in September 2000 with the objective to support and strengthen the capacities of the countries of Eastern and South-Eastern Europe, the Caucasus and Central Asia (target countries) in the field of environmental monitoring, assessment and reporting. The Working Group's 2013–2014 activities are governed by its mandate for that period as approved by the parent body.

2. The fourteenth meeting of the Working Group on Environmental Monitoring and Assessment was held on 7 and 8 November 2013 in Geneva, Switzerland.

B. Attendance

3. The meeting was attended by representatives of ministries of environment and statistical offices from the following target countries: Armenia, Azerbaijan, Belarus, Bulgaria, Georgia, Kazakhstan, Kyrgyzstan, Montenegro, Republic of Moldova, Russian Federation, Serbia, Tajikistan, the former Yugoslav Republic of Macedonia, Ukraine and Uzbekistan. In addition representatives from Austria, Finland and Switzerland participated in the meeting.

4. Albania, Bosnia and Herzegovina and Turkmenistan did not nominate representatives to participate in the meeting.

5. Representatives of the European Environment Agency (EEA), the United Nations Statistics Division and the United Nations Environment Programme (UNEP) also attended the meeting.

6. A representative of the Interstate Statistical Committee of the Commonwealth of Independent States was present (CIS-STAT), as were representatives from the Regional Environmental Centre for Central Asia and the Regional Environmental Centre for the Republic of Moldova.

7. Representatives of the Cadaster Institute of the Russian Federation and of the non-governmental organization Zoï Environmental Network attended the meeting.

8. A member of the Aarhus Centre in Turkmenistan and a representative of a team implementing a European Union (EU)-financed project, Forest and Biodiversity Governance including Environmental Monitoring in Central Asia (FLERMONECA), were also present at the meeting.

C. Procedural matters

9. The Working Group adopted the agenda for its fourteenth session, as set out in document ECE/CEP/AC.10/2013/3.¹

¹ Documents and other materials from the session are available on the ECE website from <http://www.unece.org/wgema-14.html>.

10. The Working Group adopted the report of its thirteenth session (Geneva, 30 October–1 November 2012), contained in document ECE/CEP/AC.10/2012/2.

II. Outcomes of the of the nineteenth session of the Committee on Environmental Policy of concern to the Working Group

11. The secretariat informed the Working Group about decisions taken at the nineteenth session of CEP in October 2013 regarding the implementation of the Working Group's mandate. The Committee had adopted the Guidelines for Developing National Strategies to Use Biodiversity Monitoring as an Environmental Policy Tool for Countries of Eastern Europe, the Caucasus and Central Asia, as well as interested South-Eastern European Countries (ECE/CEP/2013/7), as submitted by the Working Group. It had further invited the target countries to implement the Guidelines, and had expressed its appreciation to the Working Group for the work carried out.

12. The secretariat further reported that the Committee had established a coordination mechanism for the development of the Shared Environmental Information System (SEIS) in the form of a Group of Friends of the Shared Environmental Information System (Friends of SEIS) and had adopted the terms for reference for it. The Group would serve as a platform for the exchange of information about ongoing and planned activities relevant to SEIS development, and for building synergies among the main interested stakeholders. It should elaborate the targets and performance indicators for the development of SEIS and advise on an assessment process that would take into consideration the benefits of SEIS. The outcome of the Group's work should be presented at the Committee's twentieth session in late 2014. Furthermore, in accordance with the terms of reference, the Bureau of the Working Group as well as the countries of Eastern Europe, the Caucasus and Central Asia should nominate their representatives to the Friends of SEIS. The working language for the Group would be English.

13. The secretariat also informed the Working Group about the decision to hold the eighth "Environment for Europe" Ministerial Conference in late 2016.

14. The Working Group took note of the decisions taken by CEP. It welcomed the constitution of the Friends of SEIS and its involvement through the Bureau in that coordination mechanism. The Working Group also appreciated the invitation to the countries of Eastern Europe, the Caucasus and Central Asia to nominate their representatives to the Friends of SEIS.

15. At the same time, the Working Group questioned the decision on limiting the working language of the new Group to English only. Such a limitation might prevent the nomination of experts with the required substantive knowledge from the countries of Eastern Europe, the Caucasus and Central Asia and favour representatives of the international cooperation departments. The Working Group requested the secretariat to share its concern within ECE and the Committee's Bureau.

III. Development of methodologies and guidance documents

A. Development of guidelines on monitoring of chemical contamination of soil

16. In accordance with the decision of the Working Group at its thirteenth session (ECE/CEP/AC.10/2012/2, paras. 16–18) regarding the scope and focus of possible guidelines on monitoring of chemical contamination of soil, the secretariat with the

assistance of a consultant had prepared draft guidelines for developing national strategies to use soil contamination monitoring as an environmental policy tool (ECE/CEP/AC.10/2013/6).

17. Presenting the draft guidelines, the secretariat emphasized the importance of integrating soil contamination monitoring in the integrated environmental management system. The specifications for the design, operation and management of soil contamination monitoring — both local and diffuse — were, in turn, key to improve the efficiency of soil contamination monitoring, as well as to underpin the continuity of a well-performing monitoring system. Monitoring of local and diffuse soil contamination required different approaches in terms of defining unacceptable risk by policymakers, metrics for measurement and steps towards a successful management of contamination.

18. It was recommended that a national soil monitoring system should be carefully developed and design options fully evaluated before its implementation. To improve its efficiency, the monitoring system should be administrated by a permanent central secretariat and data should be managed within a central inventory.

19. The Working Group welcomed the draft guidelines and made a number of suggestions for the improvement of the draft. Inter alia, it was suggested to clarify the definition of unacceptable local soil contamination, to provide additional references to international standards on sampling and testing of soil and to add a summary of key points to the two main sections of the document.

20. The Working Group requested the secretariat to incorporate the comments made and to circulate an updated version of the guidelines by the end of December 2013 among Working Group members, inviting them to endorse the revised guidelines. Subsequently, the secretariat should submit the agreed text of the guidelines to CEP, at its next meeting, for adoption.

B. Implementation of guidelines

21. Following the adoption by CEP of guidelines for developing national strategies to use air and water quality monitoring as an environmental policy tool and for developing national strategies to use biodiversity monitoring as an environmental policy tool (biodiversity guidelines), as well as the Committee's invitation to the target countries to implement those guidelines, the Working Group agreed that the progress in further enhancing the monitoring systems, as recommended by the specific guidelines, should be reviewed in the target countries. Such a review should assess the level of implementation of the guidelines' recommendations and provide further directions to the target countries in relevant areas.

22. The Working Group decided to begin the review with the biodiversity guidelines. For that purpose, the secretariat was requested to prepare a questionnaire on the implementation of those guidelines and to circulate it to the target countries preferably not later than by the end of March 2014. Based on the countries' responses, the secretariat was further requested to prepare an analytical paper assessing the responses and to include recommendations on the way forward both to the individual countries and to the Working Group.

IV. Support to establishing a regular process of environmental assessment and developing the Shared Environmental Information System

23. The Working Group continued to discuss efforts that should be undertaken in the target countries to strengthen or to contribute to the development and establishment of a regular assessment and reporting process, including developing SEIS, as decided by ECE ministers at the Seventh “Environment for Europe” Ministerial Conference (Astana, 21–23 September 2011).

24. The Working Group also considered activities of the relevant partners in the process of development of SEIS and the establishment of regular assessment in the pan-European region.

A. Latest developments in environmental monitoring at the national and subnational levels

25. The Working Group members exchanged information on the latest developments in environmental monitoring, including: (a) modernization and upgrading of national monitoring networks, in particular those on air, water and soil; (b) development of monitoring of biodiversity; (c) development or improvement of inventories; (d) improvements to data quality assurance and control, as well as database management; (e) improvements in institutional mechanisms for data exchange and sharing (between ministries of environment, their agencies and services and ministries of agriculture, energy, health, industry, transport and water).

26. The exchange of information was supported with national submissions on major actions initiated since October 2012 by the following target countries: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Montenegro, Republic of Moldova, Russian Federation, Serbia, the former Yugoslav Republic of Macedonia and Turkmenistan. The submissions were prepared based on the questionnaire developed and circulated by the secretariat prior to the meeting.²

27. Furthermore, members from Serbia, Kazakhstan and Montenegro delivered presentations detailing some of the latest developments in the modernization of national monitoring networks, in their respective countries, as follows:

(a) Serbia reported on improvements in air quality monitoring, as well as on methodologies and findings of a case study for the modelling and assessment of diffuse water pollution;

(b) Kazakhstan detailed developments in the implementation of the State programme “Information Kazakhstan — 2020”, which aimed at the improvement of environmental monitoring, and the development of structures for the management, validation and publication of data;

(c) Montenegro reported on the preparation of its first indicator-based state of the environment (SoE) report, which was expected to be adopted by the Government and published in 2014.

² The relevant inputs are summarized in the annex to this report. The full submissions are available on the ECE website from <http://www.unece.org/wgema-14.html> (informal documents tab).

28. The Working Group congratulated countries on their new developments in environmental monitoring, data handling and assessments, and invited them to continue with those efforts. It was also agreed to continue sharing information on new developments at the next sessions.

B. Progress in the activities of the Joint Task Force on Environmental Indicators

29. The Chair of the Joint Task Force on Environmental Indicators informed the Working Group about the discussion at and outcomes of the Task Force's seventh session (Geneva, 5–7 November 2013), including:

(a) The review of seven indicators of the revised Guidelines for the Application of Environmental Indicators in Eastern Europe, the Caucasus and Central Asia³ (Indicator Guidelines), and the provision of practical recommendations to the target countries on the regular production of those indicators;

(b) A first reading of additional indicators on transport and environment not covered by the Indicator Guidelines, and the decision to postpone their inclusion in the Guidelines until more data were available and the definitions worked on in other forums had been agreed;

(c) A discussion on the revision of the Indicator Guidelines, and agreement on additional changes to a number of terms and definitions;

(d) A discussion of institutional, legislative and technical arrangements necessary for establishing national systems for regular and sustained data reporting on the core set of environmental indicators, and agreement to undertake a review of their production at its next meeting.

30. The Working Group took note of the activities of the Joined Task Force. It welcomed the decision to review the production and sharing of the core set of environmental indicators. The availability of the indicators produced in accordance with the agreed criteria — in common and harmonized formats — was the basis for the preparation of SoE reports and other environmental assessments, both national and regional, and hence was an important prerequisite to the Working Group's activities.

C. Preparation of indicator-based environment assessment reports

31. The Working Group at its thirteenth session decided to further enhance the efforts of the target countries in preparing indicator-based national SoE reports. To share good practices for the preparation of the SoE reports and to review progress made in the production of the reports, a network of national focal points had been established, taking into account, in particular, the experience gained in that respect within the EEA networks (ECE/CEP/AC.10/2012/2, para. 62). A meeting of those focal points had been held on 16 and 17 April 2013 in Geneva (see ECE/CEP/AC.10/2013/2).

32. Based on the information exchanged at the April meeting, as well as the responses by countries to a questionnaire circulated by the secretariat on the topic, the secretariat had prepared with support of a consultant an analytical report to recapitulate progress made in the production of the SoE reports by the target countries and offering lessons learned and

³ The revised Indicator Guidelines, which are in the form of an online database, are available from the ECE website at www.unece.org/env/indicators.

recommendations to further enhance the content of the reports, to make them more useful to policymakers and better understood by general public (ECE/CEP/AC.10/2013/5).

33. The Working Group welcomed the report and appreciated its recommendations. It invited the target countries to consider the recommendations and take the efforts to implement them. At the same time, the Group agreed that the countries should be supported in their efforts, through capacity-building, in particular to achieve the following results: (a) preparation of concise, policymaker-oriented descriptive parts in the SoE reports, which were to be based on the analysis of indicators; (b) application of the Driving forces, Pressures, States, Impacts and Responses (DPSIR) framework within the SoE reports; (c) introduction of comparative country analyses in the report; and (d) a clear statement on the validation of data used in the report. At a later stage, the countries should also be helped to introduce Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis into the SoE reports.

34. The Working Group requested the secretariat to explore possibilities with partners and donors to organize the capacity-building as soon as possible.

D. Practicalities of using the methodology of the Europe's Environment — An Assessment of Assessments report at the national level

35. At its thirteenth session, the Working Group had welcomed the proposals from two Regional Environmental Centres to undertake pilot projects using the methodology of the Europe's Environment — An Assessment of Assessments (AoA) report at the national level: in Kazakhstan and Kyrgyzstan by the Regional Environmental Centre for Central Asia; and in the Republic of Moldova by the Regional Environmental Centre Moldova. At the fourteenth session, the Regional Environmental Centres presented the AoAs, in particular, their conclusions and recommendations.

36. For Kazakhstan, the AoA had identified the need to improve the quality and compatibility of environmental data and to enforce the use of indicators. The AoA report recommended that Kazakhstan: (a) establish regular data and information flows under the National Fund of Environmental Information; (b) develop green indicators and improve waste statistics; and (c) strengthen inter-agency collaboration for the exchange, storage and analysis of data.

37. For Kyrgyzstan, the AoA report emphasized that reporting to multilateral environmental agreements (MEAs) and the preparation of SoE reports was often project driven, with funding provided through official development assistance. The data collected were insufficient as, e.g., the environmental monitoring network covered only a limited area of the country. For that reason, the data often did not meet the MEAs reporting requirements. Kyrgyzstan was recommended to: (a) improve reporting on air, climate change and wastes; (b) enforce national reporting to the Convention on Biological Diversity and other MEAs; and (c) increase the use of the ECE Indicator Guidelines and share the produced indicators online.

38. The AoA report of the Republic of Moldova pointed out that the country did not have a unified national environmental information system, and had no common platform for data management. It was recommended that the Government undertake efforts to: (a) improve the cooperation between State actors involved in environmental monitoring and assessment; (b) develop methodologies and procedures for the collection, sharing, processing and management of environmental data; and (c) enhance SEIS development.

39. The members of the Working Group from Kazakhstan, Kyrgyzstan and the Republic of Moldova acknowledged the findings of the AoA reports.

40. The Working Group discussed the reports and agreed that AoA methodology could be helpful in better understanding the shortcomings in the national systems for environmental monitoring, data handling and reporting. At the same time, understanding the shortcomings was the first step only, which should be followed with activities aimed at eliminating the shortcomings and enhancing the national monitoring, data handling and reporting. To that end, the Working Group invited the three countries to implement the recommendations as contained in the respective AoA reports. It further invited the countries to report on progress made at the Working Group's next meetings.

41. In addition, the representative of the FLERMONECA project team observed that the implementation of the AoA report recommendations for Kazakhstan and Kyrgyzstan could be supported through FLERMONECA. The representative of EEA called countries to express their interest in working with EEA on further development of the AoA methodology.

E. Use of modern technologies for better dissemination of environmental information

42. Members of the Working Group exchanged good practices on the use of modern technologies, such as online geographic information system-based systems and software, for better dissemination of environmental data, indicators and assessments. All participating countries shared their country's progress and challenges in the introduction of such technologies. The discussion was supported with input submitted by the target countries in response to the questionnaire on recent developments in environmental monitoring (see annex).

43. The discussion was further supported with a presentation by a representative from Georgia, who shared experiences in creating an interactive online map on the country's protected areas.

44. The Working Group welcomed the new developments and the exchange of good practice, which could help the member countries in thinking of their next steps when learning from others. It was therefore agreed to continue to encourage such exchanges at the Working Group's next meetings.

V. Assessment and data-collection activities in other forums of relevance to the Working Group

45. Representatives of ECE MEAs (the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention); the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention); and the Protocol on Water and Health), the ECE and Food and Agriculture Organization of the United Nations (FAO) Joint Forestry and Timber Section, the United Nations Statistics Division, UNEP, EEA and the FLERMONECA project team reported on developments with regard to ongoing and planned environmental assessments and data-collection activities of relevance to the Working Group.

46. The Aarhus Convention's work on access to environmental information was carried out under the auspices of its Task Force on Access to Information. The work focused on improving public access to environmental information, including through electronic information tools. The second meeting of the Task Force was to be held in Geneva on 16 and 17 December 2013, and would address public access to environmental information

in such areas as land management and spatial planning, agriculture and water supply and waste water treatment.

47. The Meeting of the Parties to the Water Convention had established a Task Force on the Water-Food-Energy-Ecosystems Nexus at its sixth session (Rome, 28–30 November 2012), which was to guide the development of methodologies for nexus assessments of transboundary basins. The nexus assessment was to be prepared for late 2015. It was expected to be mostly qualitative, involving the identification of linkages and major issues, substantiated by appropriate indicators. Some limited quantification seemed feasible, but the methodology would still need to be piloted. A significant part of the actual data to be used for the analysis was to be taken by the contracted experts from the international databases which contained official country data (AQUASTAT of FAO, World Bank databases, etc.).

48. The second reporting round had been conducted under the Protocol on Water and Health in 2013, in which the Parties had had to report, among others, on the common water and health indicators used under the Protocol, such as the quality of drinking water supplied, access to drinking water and sanitation and water quality. The information reported indicated a generally positive trend on water quality and health issues, as well as access to drinking water and sanitation for the Parties to the Protocol.

49. The ECE and FAO Joint Forestry and Timber Section coordinated three major reporting programmes, on: Wood Removals and Products (with data published annually); Wood Energy (publications biennially); and a new programme, Forests and Forest Management (publications every five years). Data collection for global and pan-European reporting within the programme on Forests and Forest Management was in progress and reports were expected to be published by 2015. The data collection process was done in the framework of six criteria and 35 indicators. The Timber Section planned future reporting activities on forests with regard to forest ownership and the forest sector in a green economy.

50. The United Nations Statistics Division was to initiate a next collection round of environmental statistics in December 2013 by circulating the United Nations Statistics Division/UNEP questionnaire on environment statistics. The members of the Working Group were invited to support their national data submission. The Statistics Division was also interested in comments on the questionnaire design and the clarity of the information presented. In addition, the Statistics Division had elaborated, in close cooperation with EEA, a new Framework for Environmental Statistics Publications, which was due to be published in March 2014. Also, a Central Framework for Environmental-Economic Accounting had been prepared, which was available online for countries to use in a “white cover” (i.e., unedited) version.⁴

51. UNEP published its fifth Global Environment Outlook (GEO-5) as part of its Integrated Environmental Assessment (IEA) in 2012. UNEP also ran an online knowledge management platform, UNEP-Live, which was implemented in close cooperation with EEA and their EIONET and SEIS programmes and was to be formally launched in January 2014. The purpose of UNEP-Live was to facilitate the preparation of future global and thematic assessment reports (including GEO-6), to provide access to relevant environmental data, indicators and information, to assist in network’s development from the global to the national level and to help countries to develop capacities for using IEA technologies.

52. EEA had been working on its quinquennial SoE Synthesis Report to be completed in 2014 and presenting the European environment’s state, trends and prospects. A new

⁴ Available online from http://unstats.un.org/unsd/envaccounting/White_cover.pdf.

structure had been developed for the report to adjust it better to the needs of the decision-makers when agreeing environmental priorities. The report was to present information from SoE reports of EEA member States in a consistent manner to create comparability at the European level and to show the countries' environmental challenges embedded in a global context.

53. The EU-financed project FLERMONECA had been developed and launched in 2013 to improve environmental monitoring, reporting and data sharing in the Central Asian countries, and to raise awareness on SEIS principles and to strengthen cooperation between relevant Central Asian and EU institutions. The countries were invited to actively participate in the project.

54. The Working Group highly appreciated the information provided, helping the member countries to keep an overview of the various activities and to explore synergies at the national level in the area of monitoring, data reporting and assessments.

VI. Closure of the meeting

55. The Working Group thanked donors, in particular Norway and the Russian Federation, for the financial support provided for the eligible members of the Working Group to participate in the session.

Annex

Summary of the latest developments in environmental monitoring and assessment between October 2012 and October 2013 in countries of Eastern and South-Eastern Europe, the Caucasus and Central Asia

Country	Developments in legal and regulatory basis	New institutional arrangements	Modernization of monitoring networks	Improvements in data management	Improvements in data presentation
Armenia	<p>Overarching matters</p> <ul style="list-style-type: none"> Environmental legislation was supplemented with laws to regulate targets and responsibilities for indicator production, data exchange, publication and the preparation of national assessment reports A new law constituting the legal framework for the development of a SEIS was drafted 	<p>Overarching matters</p> <ul style="list-style-type: none"> As part of the new environmental legislation, responsibilities for monitoring and data exchange on air pollution, water and biodiversity were clarified between relevant ministries 	<p>Air</p> <ul style="list-style-type: none"> One new automated station for monitoring heavy metals in the atmosphere was installed <p>Water</p> <ul style="list-style-type: none"> New contaminants, such as aldrin and endrin, are now monitored in surface waters 	<p>Overarching matters</p> <ul style="list-style-type: none"> The Intergovernmental Panel on Climate Change (IPCC) Inventory Software (according to the 2006 IPCC guidelines) was introduced to improve data management and reporting on climate change The integrity of administrative databases and software implementation was improved for the development of a SEIS 	<i>No specific changes</i>
Azerbaijan	<p>Overarching matters</p> <ul style="list-style-type: none"> Bills with amendments to the national laws “On obtaining information about the environment” and “On protection of the Atmosphere” were prepared 	<i>No specific changes</i>	<p>Air</p> <ul style="list-style-type: none"> New technical standards for the monitoring of ammonia and sulphur dioxide in the atmosphere were introduced <p>Water</p> <ul style="list-style-type: none"> New technical standards for the monitoring of water quality were elaborated 	<i>No specific changes</i>	<i>No specific changes</i>

<i>Country</i>	<i>Developments in legal and regulatory basis</i>	<i>New institutional arrangements</i>	<i>Modernization of monitoring networks</i>	<i>Improvements in data management</i>	<i>Improvements in data presentation</i>
Belarus	<p>Biodiversity</p> <ul style="list-style-type: none"> • A regulation on procedures for monitoring wildlife and the use of wildlife monitoring data was approved 	<i>No specific changes</i>	<p>Overarching matters</p> <ul style="list-style-type: none"> • Laboratory equipment to monitor persistent organic pollutants (POPs) in waters and soil were installed to implement the provisions of the Stockholm Convention on POPs <p>Air</p> <ul style="list-style-type: none"> • One monitoring station for ground-level ozone and one station for measuring fine particulate matter (PM_{2.5}) were installed • Nine new automated meteorological information and measuring systems were installed <p>Water</p> <ul style="list-style-type: none"> • One new hydrological automated station, which measures the water level, water temperature, precipitation and humidity in the transboundary Neris River, was installed • Chlorophyll a is now measured in surface waters 	<p>Water</p> <ul style="list-style-type: none"> • A software for online access to time series data on water quality was included in the database <p>Biodiversity</p> <ul style="list-style-type: none"> • The structure and interface of the computer-based information system for data on fauna was improved 	<p>Overarching matters</p> <ul style="list-style-type: none"> • Data from radiation monitoring stations as well as data on concentrations of priority pollutants in ambient air are now made accessible to the public on the website http://rad.org.by

Country	Developments in legal and regulatory basis	New institutional arrangements	Modernization of monitoring networks	Improvements in data management	Improvements in data presentation
Bosnia and Herzegovina	<i>No information provided</i>				
Kazakhstan	<p>Overarching matters</p> <ul style="list-style-type: none"> Environmental legislation regulating public access to information, public participation in decision-making and access to justice was amended 	<i>No specific changes</i>	<p>Air</p> <ul style="list-style-type: none"> 26 new automatic stations for monitoring air pollution were installed <p>Water</p> <ul style="list-style-type: none"> Five new automatic hydrochemical and hydrological stations on transboundary rivers with China were installed 	<p>Biodiversity</p> <ul style="list-style-type: none"> A unified information system for “State Forest Fund Accounting, State Forest Cadastre, and State Forest Monitoring” was developed 	<p>Overarching matters</p> <ul style="list-style-type: none"> The content management system of the web portal of Kazakhstan’s Aarhus centre was modernized (www.aarhus.kz)
Kyrgyzstan	<p>Overarching matters</p> <ul style="list-style-type: none"> A programme on sustainable development, including the obligations to improve environmental monitoring and public access to information, was approved 	<i>No specific changes</i>	<i>No specific changes</i>	<p>Overarching matters</p> <ul style="list-style-type: none"> With the support of the EU, a strategy for implementing a SEIS was developed 	<i>No specific changes</i>
Montenegro	<p>Overarching matters</p> <ul style="list-style-type: none"> A regulation on the National List of Environmental Indicators containing 55 indicators was approved <p>Air</p> <ul style="list-style-type: none"> The First National Strategy on Air Quality Management (2013–2016), including reporting obligations, was adopted 	<p>Overarching matters</p> <ul style="list-style-type: none"> A Memorandum of Understanding between Statistical Office of Montenegro (MONSTAT) and the Ministry of Agriculture was signed for data harmonization and to improve data exchange 	<p>Air</p> <ul style="list-style-type: none"> Data on heavy metals (arsenic, cadmium, nickel) and benzo(a)pyrene is now collected <p>Water</p> <ul style="list-style-type: none"> 20 automatic stations for water monitoring are now producing data on water quality and real-time data on water levels 	<p>Overarching matters</p> <ul style="list-style-type: none"> A project on the creation of an Environmental Information System, which included launching a new database on air, water and soil, was finalized 	<p>Water</p> <ul style="list-style-type: none"> An online water database including spatial data was made accessible to the public

<i>Country</i>	<i>Developments in legal and regulatory basis</i>	<i>New institutional arrangements</i>	<i>Modernization of monitoring networks</i>	<i>Improvements in data management</i>	<i>Improvements in data presentation</i>
		<p>Waste</p> <ul style="list-style-type: none"> An action plan on shared responsibilities in the area of waste statistics was established between MONSTAT and the Environmental Protection Agency 			
Republic of Moldova	<p>Overarching matters</p> <ul style="list-style-type: none"> A law on public access to environmental information was approved <p>Water</p> <ul style="list-style-type: none"> An act regulating monitoring of surface water and groundwater was approved 	<p>Water</p> <ul style="list-style-type: none"> An “information system” involving five relevant State institutions was created to exchange information on water management and to simplify the procedure of issuing permits for water use 	<p>Air</p> <ul style="list-style-type: none"> Organic and elemental carbon, macro and trace elements in samples of coarse particulate matter (PM₁₀) as well as PM_{2.5} are now measured <p>Water</p> <ul style="list-style-type: none"> Eight new stations for water monitoring were installed <p>Soil</p> <ul style="list-style-type: none"> Six new stations to monitor qualities of soil near rail tracks were installed 	<p>Water</p> <ul style="list-style-type: none"> A database on the quality of surface waters was developed within the project “Capacity-building in data administration for assessing transboundary water resources in countries of South-Eastern and Eastern Europe, the Caucasus and Central Asia” A Geographic information system (GIS) containing information on ground waters is currently being developed 	<p>Water</p> <ul style="list-style-type: none"> An Internet platform to facilitate public access to information on water resources is currently being developed <p>Waste</p> <ul style="list-style-type: none"> A waste management information system and an online register of chemical substances was launched

<i>Country</i>	<i>Developments in legal and regulatory basis</i>	<i>New institutional arrangements</i>	<i>Modernization of monitoring networks</i>	<i>Improvements in data management</i>	<i>Improvements in data presentation</i>
Russian Federation	<p>Overarching matters</p> <ul style="list-style-type: none"> • A decree on the preparation and dissemination of the annual SoE report was approved • A decree on the monitoring of public health and environmental pollution was approved 	<p>Overarching matters</p> <ul style="list-style-type: none"> • A State fund was created to reorganize responsibilities for environmental monitoring data, working towards a unified national system of environmental monitoring between relevant institutions 	<p>Air</p> <ul style="list-style-type: none"> • 15 new stations for monitoring air pollutants were installed • The monitoring of PM_{2.5} and PM₁₀ was extended <p>Water</p> <ul style="list-style-type: none"> • Seven new stations for water monitoring were installed <p>Soil</p> <ul style="list-style-type: none"> • New equipment for monitoring soil contamination was acquired <p>Biodiversity</p> <ul style="list-style-type: none"> • Within the project “the reproduction and use of natural resources”, monitoring of hunted species has been extended 	<p>Water</p> <ul style="list-style-type: none"> • A unified automated information system for monitoring data of water bodies was developed 	<p>Overarching matters</p> <ul style="list-style-type: none"> • Data in real-time on concentrations of pollutants, as well as meteorological and hydrological parameters, was made accessible to the public online (www.pogodasochi.ru; www.tatarmeteo.ru) • An interactive map of monitoring data for geological processes was developed (www.geomonitoring.ru)
Serbia	<p>Air</p> <ul style="list-style-type: none"> • The “Regulation on Conditions and Requirements for Air Quality Monitoring” were amended to improve the transposition of EU legislation 	<p>Overarching matters</p> <ul style="list-style-type: none"> • The country is now part of the European Environmental Information and Observation Network (EIONET), connecting 23 national providers of environmental monitoring data 	<p>Air</p> <ul style="list-style-type: none"> • Five new stations monitoring allergenic pollen were installed • Data on arsenic, cadmium, nickel, lead and zinc in PM₁₀ is now collected 	<p>Overarching matters</p> <ul style="list-style-type: none"> • The IPCC Inventory Software (according to the 1996 IPCC guidelines) was introduced to improve data management and reporting on climate change 	<p>Air</p> <ul style="list-style-type: none"> • Air quality monitoring data is now accessible to the public in real-time on the EEA “Ozoneweb” (www.eea.europa.eu/maps/ozone/welcome)

<i>Country</i>	<i>Developments in legal and regulatory basis</i>	<i>New institutional arrangements</i>	<i>Modernization of monitoring networks</i>	<i>Improvements in data management</i>	<i>Improvements in data presentation</i>
			<p>Water</p> <ul style="list-style-type: none"> • 22 new stations for water monitoring were installed <p>Soil</p> <ul style="list-style-type: none"> • New methods for the measurement of soil contamination were implemented <p>Waste</p> <ul style="list-style-type: none"> • New methodologies for the collection of data on waste from the construction and service sectors were developed 		
Tajikistan	<i>No specific changes</i>	<i>No specific changes</i>	<p>Air</p> <ul style="list-style-type: none"> • There was an increase in the number of measured data sets for air pollution 	<i>No specific changes</i>	<i>No specific changes</i>
The former Yugoslav Republic of Macedonia	<p>Air</p> <ul style="list-style-type: none"> • A national plan for ambient air protection and a national plan for emission reduction was adopted to implement protocols under the Convention on Long-range Transboundary Air Pollution — the Protocol to Abate Acidification, Eutrophication and Ground-level Ozone, the Protocol on Heavy 	<i>No specific changes</i>	<i>No specific changes</i>	<i>No specific changes</i>	<p>Air</p> <ul style="list-style-type: none"> • A pilot database for emission data was launched providing data on air quality in real-time (airquality.moep.gov.mk)

<i>Country</i>	<i>Developments in legal and regulatory basis</i>	<i>New institutional arrangements</i>	<i>Modernization of monitoring networks</i>	<i>Improvements in data management</i>	<i>Improvements in data presentation</i>
	<p>Metals and the Protocol on Persistent Organic Pollutants</p> <p>Biodiversity</p> <ul style="list-style-type: none"> A new national strategy for biodiversity conservation was developed, including the obligation to draft a national report on biodiversity 				
Turkmenistan	<p>Overarching matters</p> <ul style="list-style-type: none"> Amendments on statistical legislation regulating the collection of data, including environmental data, as well as administrative procedures and trainings of employees, were approved 	<p>Overarching matters</p> <ul style="list-style-type: none"> An “Interagency Council on State Statistics” consisting of representatives of relevant State statistics bodies, ministries, agencies and academic institutions was formed to improve collaboration on environmental data collection and management 	<i>No specific changes</i>	<i>No specific changes</i>	<i>No specific changes</i>
Ukraine	<i>No information provided</i>				