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**Report on progress in establishing the Shared Environmental
Information System in support of regular reporting in the
pan-European region**



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**The environment dimension of the 2030 Agenda for Sustainable
Development — moving forward in the pan-European region:
keeping the pan-European environment under review**

Report on progress in establishing the Shared Environmental Information System in support of regular reporting in the pan-European region

Note by the Working Group on Environmental Monitoring and Assessment

Summary

At the Seventh Environment for Europe Ministerial Conference (Astana, 2011) ministers decided that the pan-European environment should be kept under review by establishing a regular process of environmental assessment and developing a Shared Environmental Information Systems (SEIS) across the region. In accordance with that decision, the Economic Commission for Europe (ECE) Committee on Environmental Policy tasked the Working Group on Environmental Monitoring and Assessment with the review of progress in the establishment of SEIS. At its twentieth session (Geneva, 28–31 October 2014), the Committee requested the Working Group to prepare an evaluation report on progress made in establishing SEIS for consideration at the Eighth Environment for Europe Ministerial Conference (ECE/CEP/2014/2, paras. 26 and 98 (ff) (iii)).

The present document responds to the Committee's request. It was developed by the Working Group with support from the secretariat and in consultation with the European Environment Agency. The document aims to facilitate the ministerial discussion on keeping the pan-European environment under review.



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Summary of key messages and issues for consideration

A. Main achievements

1. Key results from this first assessment of progress in establishing the Shared Environmental Information System (SEIS) demonstrate that the drive towards establishing SEIS (and to facilitate data harmonization) at the pan-European¹ level has had a positive impact, not only on the capacities of countries to meet environmental reporting obligations and provide comparable environmental information, but also on data accessibility across the region. In general, countries are providing on their websites information related to methodologies used for producing data, how data are being used and data sources.
2. Reflecting on the online accessibility of environmental information and data, 32 of the 50 countries included in the assessment have increased the accessibility of their environmental information and data starting in 2015, when the process began. There are only a limited number of countries for which only a few or no data sets could be found online.
3. The results of this assessment will serve as a baseline for future reviews, as well as to monitor and assess progress made in establishing SEIS for those countries that have completed the validation to date. The baseline will also be used to assess country performance related to an effective operationalization of SEIS for all data sets made available and accessible online. It is expected that the validation and continued review process will help to improve, or make more evident, SEIS performance in the pan-European region as a whole, in support of regular reporting in the region.
4. It was agreed that, in the future, the United Nations Environment Programme (UNEP) would support the development of a simple online reporting mechanism through the UNEP Live platform. This will provide the framework for the United Nations Economic Commission for Europe (ECE) Working Group on Environmental Monitoring and Assessment, supported by the ECE secretariat, to continue its efforts to evaluate progress in establishing SEIS in a sustainable way.

B. Main challenges

5. Full participation of all countries in the pan-European region in this first assessment was not achieved. Moreover, the assessment was not able to take into account internationally accepted standards for data set production nor data quality, given the limited resources available. Neither data quality nor data usage was, as such, assessed. These shortcomings should be rectified in the next review round.
6. Building on experiences from the first review, continued efforts are needed in measuring progress on SEIS establishment. The next assessment would benefit from an adequate review of all the three main SEIS pillars — cooperation, content and infrastructure — and the expansion of the review criteria when assessing the establishment of SEIS in order to enhance data quality for environmental reporting.

¹ In the context of the present document the term “pan-European” applies to the ECE region with the exception of Andorra, Canada, Israel, Monaco, San Marino and the United States of America.

7. The report also highlighted the prevalence of performance gaps and areas in need of improvement. In particular, the lack of systematic online publishing as part of certain thematic areas (e.g., water) and the significant variations across countries regarding how the respective environmental data sets are provided and made accessible online (e.g., with regard to user-friendliness and the number of online platforms). In addition, keeping data sets up to date has been identified as a challenge that needs to be addressed.

8. The review process should, in its activities, take into account the need for updating the environmental indicators and associated data sets as required by changing priorities and reporting obligations. It should also support the development of capacities of national administrators to make better use of existing environmental indicators, as well as to make them more accessible. It should furthermore assist in building capacities for the compilation and integration of environmental data in support of measuring sustainable development. Monitoring activities should consider opportunities to obtain and integrate environmental data from earth observations, such as that collected by the Group on Earth Observations.

C. Way forward

9. The assessment can be seen as a milestone, as it marks the considerable progress that has been achieved in the establishment of the SEIS throughout the pan-European region in support of the regular reporting mechanism. Support provided by ECE to the Working Group on Environmental Monitoring and Assessment and the Joint Task Force on Environmental Statistics and Indicators, with contributions from donor countries, and by the European Environment Agency (EEA), through the European Union's European Neighbourhood Policy Instrument-SEIS project and the Instrument for Pre-accession Assistance project, has significantly built SEIS capacity in the countries of the Caucasus, Central Asia and Eastern and South-Eastern Europe.

10. At the same time, some of the performance gaps identified demonstrate the continued need for assistance to achieve the complete production and sharing of all the agreed environmental indicators and associated data sets, to the extent possible, in the years to come. It is for this reason recommended that the updating and expansion of the environmental data sets should be harmonized with the work of the EEA Environment Information and Observation Network (Eionet) and UNEP and aim to align with the requirements of the United Nations System of Environmental-Economic Accounting (SEEA). Coordinated efforts and more extensive cooperation is strongly encouraged between ECE (also internally between the Conference of European Statisticians and the Joint Task Force on Environmental Statistics and Indicators), UNEP and EEA to support the further development of SEIS in support of regular reporting.

11. The purpose of the self-assessment process is to ensure that each country improves or maintains a high performance from year to year. The objective is that all participating countries will achieve and maintain high SEIS performance levels overall. It is therefore essential to motivate countries to fully participate in the regular review process.

12. Given the limitations identified regarding data accessibility, it would be valuable to include, as part of the reporting mechanism, an assessment of the data quality as well as national barriers to implementing SEIS and a regular reporting process. It is suggested that a follow-up exercise focus on reviewing how comparable the data sets are across the pan-European countries and the need for common format requirements. Future assessments should also take into account the need to identify gaps, monitor changes over time and to highlight collaborative and capacity-building activities in the reports.

13. Taking into account the progress achieved by countries in developing SEIS and the challenges identified as a result of the first review process, countries are encouraged to continue improving regular data production and the publishing of environmental information online. Environmental authorities are also encouraged to work closely with their national statistical agencies to integrate and share information.

14. The reporting tool that will be developed by UNEP in consultation with the Working Group, and maintained by the ECE secretariat, should be piloted to investigate how it could be operationalized within existing national monitoring systems and taking into account the need for technical and financial resources. In establishing the online reporting mechanism, the identification and mapping of national administrators in charge of environmental information and data at the national level would be useful. They could also be encouraged to share data and information to improve multiple use and to reduce reporting burdens.

15. The continued development of the self-assessment procedure and reporting mechanism could take some of the following issues and recommendations into consideration:

(a) Include a voluntary and complementary component in the reporting mechanism that addresses obligations under the ECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention) for those member States that are Parties to the Convention. This component could facilitate increased capacities and knowledge transfer in fulfilling obligations that Parties have in providing access to information and, by extension, assist in the implementation of SEIS;

(b) Conduct, as part of the future review process, a study that focuses on the best ways to operationalize the reporting mechanism. Results from the study would provide concrete and useful inputs into the design and operationalization of the online reporting mechanism, as well as provide recommendations on how systematic online publishing of environmental data and information could be improved by countries;

(c) Consider how cooperation, at the national level and as a pillar of SEIS, should be accounted for in the review process. The current review criteria (see table 1) are principally useful in assessing progress towards two of the three SEIS pillars — namely, content and infrastructure;

(d) The consultations raised some concerns that methodologies for producing data and data use was not thoroughly assessed. More specifically, the review should assess how the data sets and related indicators have been used in national environmental assessments and reports. Addressing these concerns would help to further harmonize conditions of access to environmental information and data, as well as improve the reliability and comparability of data across the pan-European countries, which is a prerequisite for improved sharing of environmental data;

(e) Further work on the integration and compatibility of environmental and economic information and data is recommended, in line with SEEA, which provides a framework for producing internationally comparable statistics on the environment and their relationship with the economy.

I. Introduction

16. The Reform Plan of the Environment for Europe process (ECE/CEP/S/152 and Corr.1, annex I), adopted by the ECE Committee on Environmental Policy in 2009, and subsequently endorsed by ECE, mandated the Committee to act as the convening body for the preparatory processes for the Environment for Europe ministerial conferences.

17. At its twentieth session (Geneva, 28–31 October 2014), the Committee mandated the Working Group on Environmental Monitoring and Assessment to review the progress in establishing SEIS based on the targets and performance indicators adopted by the Committee (ECE/CEP/2014/8), with a view to preparing an evaluation report on progress made in establishing SEIS in the pan-European region for the Eighth Environment for Europe Ministerial Conference. The Committee also requested that a first report on that activity be presented at its next session (see ECE/CEP/2014/2, paras. 26 and 98 (ff) (iii)).

18. At its twenty-first session (Geneva, 27–30 October 2015), the Committee welcomed the work of the Working Group in assessing the progress in establishing SEIS, and mandated it to work with the countries and EEA to validate the data and information and continue to monitor progress in developing SEIS in the region, with a view to submitting an updated report to the Committee at its special session in February 2016 (see ECE/CEP/2015/2, forthcoming).

19. At its special session (Geneva, 23–25 February 2016), the Committee welcomed the revised draft report and approved it, as amended during the session, for submission to the Conference (see ECE/CEP/S/2016/2, forthcoming).

20. The present document, as approved by the Committee, aims to support the ministerial discussion on keeping the pan-European environment under review.

II. Background

21. A vast amount of environmental data on the state of Europe's environment, trends, pressures and drivers is being collected, not only for policymakers but also to provide public access to data. As part of this process, and to maximize the use of environmental data, in 2008, the European Commission called for SEIS to connect existing databases and to make data more accessible.²

22. SEIS is an approach that facilitates regular environmental assessments and reporting. It links existing data and information flows relevant for national authorities in their monitoring and assessment activities by means of information and communication technologies. It advances the dissemination, application and comparability of environmental indicators and associated data sets to share existing information networks and harmonize environmental monitoring requirements.

23. In the pan-European region, SEIS should function within this framework of enhanced networking and cooperation with and between national authorities concerned with environmental information and statistics. It should serve multiple policy purposes, including reporting under multilateral environmental agreements.

² See European Commission, "EU Shared Environmental Information System Implementation Outlook" (SWD(2013) 18) and "Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions — Towards a Shared Environmental Information System (SEIS)" (COM(2008) 46).

24. Recognizing the challenges inherent in access to the type of data and information needed for the next generation of global and regional environmental assessments, ministers of the environment from the pan-European region at the Seventh Environment for Europe Ministerial Conference (Astana, 21–23 September 2011) decided to establish a regular process of environmental assessments and to develop SEIS across the pan-European region (see ECE/ASTANA.CONF/2011/2/Add.1).

25. In response to that decision, the Working Group on Environmental Monitoring and Assessment prepared the present report as part of a preparatory and stock-taking exercise to assess how far member States have built SEIS leading up to the Batumi Ministerial Conference.

26. In the preparatory phase, the Working Group defined a framework to review progress towards SEIS. This included identifying specific data sets³ for the pan-European SEIS and proposing a reporting mechanism that would enable member States to collect data in line with the SEIS targets and performance indicators. The Working Group decided at its sixteenth session (Istanbul, Turkey, 16–17 April 2015) that SEIS should facilitate access to data and information produced in common formats and standards, as defined by 67 data sets grouped across seven thematic areas:

(a) **Air pollution, air quality and ozone depletion:** 25 data sets, including emissions of pollutants into the atmospheric air, ambient air quality and consumption of ozone-depleting substances;

(b) **Climate change:** 4 data sets, covering air temperature, atmospheric precipitation, and greenhouse gas emissions, etc.;

(c) **Water:** 20 data sets, inter alia, renewable freshwater resources, total water use, population connected to water supply industry, nutrients in freshwater and population connected to wastewater treatment;

(d) **Biodiversity:** 4 data sets, including, protected areas, forests and other wooded land and threatened and protected species;

(e) **Land and soil:** 2 data sets, including total land uptake;

(f) **Energy:** 4 data sets, covering final energy consumption, total primary energy supply, etc.;

(g) **Waste:** 8 data sets, including waste generation and management of hazardous waste.

27. The thematic areas and data sets are linked to the performance of each ECE member State with regard to the provision of priority data and information, in line with global and regional multilateral environmental agreements and subject to further negotiations.⁴ The thematic areas were furthermore generally accepted as corresponding to regional priorities and/or Global Environmental Goals.⁵

28. The outline for a reporting mechanism to assess the effective production and online sharing of the agreed data sets in line with the SEIS targets and performance indicators was agreed at an extraordinary meeting of the Working Group's sub-group on the development of the reporting mechanism (Geneva, 3 July 2015). The reporting mechanism requires each SEIS data set to be assessed according to five criteria for review, namely: online

³ The term "data sets" covers both environment statistics and environmental indicators.

⁴ For more details on the data sets, see ECE/CEP/AC.10/2015/2, available from www.unece.org/index.php?id=39929.

⁵ See the UNEP Global Environment Goals (<http://geg.informea.org>).

accessibility; update regularity; production methodology; data interpretation and use; and data sources (see table 1).

29. Another outcome of the extraordinary meeting was a recommendation to the Working Group that each country, as part of a national coordination mechanism, should decide which entity would be responsible for SEIS or that each country should be offered the possibility to nominate a SEIS “focal point” for the self-assessment.⁶ The Working Group accepted the recommendation at its seventeenth session (Geneva, 7–8 September 2015) and agreed to include it in its report to the Committee on Environmental Policy. It further recommended that the self-assessment should be done by each respective SEIS “focal point”, while EEA should be invited to conduct the review by reviewers for its pan-European member countries⁷ and the ECE secretariat should carry this out for countries from the Caucasus, Central Asia and Eastern and South-Eastern Europe, as well as other pan-European countries not covered by EEA (ECE/CEP/AC.10/2015/4, para. 9 (c)).

30. The pan-European SEIS reporting mechanism is foreseen to be developed as an online application that allows each entity or “focal point” at the national level to provide summary records and information for each data set. It would become a self-assessment tool for each country to help identify performance gaps in accordance with the SEIS targets and performance indicators and to monitor progress in addressing these gaps over time. The development of the online application, however, can only be achieved in the medium term. Thus, for the current review, the sub-group on the development of the reporting mechanism agreed that an Excel table should be designed and populated by the secretariat for each country and data set in line with the five criteria for review. This process has provided most of the data for this document, as a trial run for the SEIS reporting mechanism.

31. The Working Group proposes the use of the UNEP Live⁸ platform to develop the simple online mechanism as a basis for regular monitoring and assessment through national reporting systems. At its twenty-first session the Committee on Environmental Policy approved the proposed organization and shape of the regular environmental assessment process based on SEIS (see ECE/CEP/2015/10), including the use of UNEP Live as the main platform at the pan-European level, linking with national platforms to provide centralized access to the knowledge base, including assessments, the data and information regularly published by countries. The data and information flows at the member State level would allow countries to track changes across the thematic areas and to assess any changes against the policy framework, as well as to provide information on the progress made on the agreed regional or global commitments. It is foreseen that the Working Group will manage the accessibility, production and sharing of data by pan-European countries as part of an annual review process of country performance in establishing and operating SEIS, based on the SEIS targets and performance indicators adopted by the Committee.

32. The sections below contain the updated initial review of the progress in developing SEIS in the pan-European region. Only data sets and other related information published online on the national websites of the countries in the pan-European region have been assessed and presented.

⁶ This is also in line with the approach taken for *the European Neighbourhood and Partnership Instrument (ENPI)-SEIS East Region Synthesis Report*.

⁷ EEA members are the 28 European Union member States as well as Iceland, Liechtenstein, Norway, Switzerland and Turkey.

⁸ See www.unep.org/uneplive.

III. Performance in developing a Shared Environmental Information System in the pan-European region

A. Review process

33. Data collection and analysis (as part of a desk study) for the current progress report was conducted in the period between August and December 2015. It was implemented in two steps:

(a) As a first step, the secretariat collected all relevant information related to each environmental data set available online and across all national platforms, covering the entities and/or “focal points” responsible for the implementation of SEIS;

(b) As a second step, all data sets were rated according to the five criteria for review as proposed by the secretariat in its concept for a reporting mechanism. The rating process was achieved by evaluating the collected material and asking simple dichotomous (yes/no) questions in line with each review criteria. The rating was done with a “yes” (value of 1) or “no” (value of 0) depending on whether the requirements for each review criterion were or were not met. This generated an overall performance score⁹ that ranges between 0 and 5 for each data set.

34. Table 1 below provides the criteria for review as agreed by Working Group.

Table 1

Criteria for review

<i>Criteria</i>	<i>Description</i>
I. Online accessibility	The data set can be easily accessed by anybody at any time online.
II. Update regularity	The data set is updated with figures of the latest agreed production period.
III. Production methodology ^a	Detailed information on standard methodologies and calculation methods for the production of the data set is provided. The detailed information should further confirm that the applied methodology is in accordance with the agreed standard methodology for the production of the particular data set.
IV. Data interpretation and use ^a	The data set is supported by information about what it presents and how to understand the changes in data sets over time. Information should also be provided on how the collected data was interpreted and used (e.g., for state-of-the-environment reporting or to support environmental policymaking). Information should furthermore be provided in the national language and in an international language (English and/or Russian) to be accessible to the national and international community.
V. Data sources ^a	The institution responsible for the production of the data set, its source and contact details are available.

^a During the validation process it was recognized that the meaning of this criterion for review had to be clarified. The description of this criterion has consequently been updated to reflect comments received.

⁹ The performance score corresponds to an initial trial attempt to quantify a member State’s establishment of SEIS (or their “performance status”). The score is meant as a method of quantifying and marking the performance of the establishment of SEIS at the national level.

35. **Online accessibility.** The rating process was performed by giving the value of 1 when the necessary information for each data set was found available online and with the value of 0 when it was absent. Each data set was assessed first in terms of online accessibility and, if the data set was accessible online, it was further assessed on the remaining four criteria. If the data set was not available online, it could not be assessed and the review process did not go further for that particular data set. This resulted in an overall performance score of 0 for the data set in these cases. It should be noted that when referring to SEIS development status at the pan-European level it is at this stage principally about the availability of data online. This issue is recognized and addressed in the extended analysis (see section E below) and also considered in the key messages in connection with how to improve the review process.

36. It is also important to note that all EEA member countries report their SEIS-related data directly to EEA, often without publishing them on national platforms. These data sets were not considered within the scope of the present review for two reasons: first, the practice is not aligned with SEIS principles on data management and accessibility for end-users as applied by the Working Group; second, such a practice did not comply with the approach approved by the Committee on Environmental Policy when it adopted the pan-European SEIS targets and performance indicators. Finally, it should be noted that the practice is also not in line with the principles of the ECE Aarhus Convention (art. 5) and its Protocol on Pollutant Release and Transfer Registers (Protocol on PRTRs) with regard to access to environmental information.

37. **Update regularity.** The rating process to determine update regularity was performed by giving the value of 1 when time series for each data set were provided and when the last series was not older than 2012. This is in accordance with SEIS principles on timely access to information and obligations set out in article 5, paragraphs 1 and 4, of the Aarhus Convention to update environmental information and to publish national reports on the state of the environment at regular intervals not exceeding three to four years. Most data sets are subject to annual update; however, there are some data sets for which the period of update is to be further clarified and where availability and accessibility on national websites is dependent on national data policies.

38. **Production methodology.** It has not been possible to rate the application of standard production methodology satisfactorily, as it could not be verified whether the country-specific methodology was in line with the internationally accepted methodology for each data set. In this instance, the value of 1 was given if detailed information on the production methodology was made accessible on the national websites. It is foreseen that this review criterion may be subject to additional analysis in the next assessment.

39. **Data interpretation and use.** It has not been possible to rate the quality of the content available for each data set, i.e., how the data was interpreted and used (e.g., for state-of-the-environment reporting) or whether it was used to answer key policy questions and/or to support environmental policymaking (e.g., setting policy targets) as well as taking into account whether data interpretations were made available in other international languages (English or Russian). In this instance, the value of 1 was given if any information on the data set was provided. The issue of “online accessibility” and “data interpretation and use” has been subject to an extended analysis that is presented in section E below.

40. **Data sources.** The rating process for data sources was performed by giving the value of 1 when the institution responsible and contact details for each data set were made available. This is in line with SEIS principles on accessibility of data to end-users, including public authorities, the public and other stakeholders, and obligations under articles 3 and 5, paragraph 2 (b), of the Aarhus Convention to provide support and guidance to the public in seeking access to information as well as to identify points of contact.

41. Each criterion for review was given equal weight when assessing the effective production and sharing of the data sets. This makes up the overall performance score, which is presented as a quantitative measurement in per cent, referring to the pan-European countries' progress in developing the SEIS.

42. As part of the review process leading up to this report, consultations with partners and countries and the regular reporting mechanism led to the conclusion that a rating value of 0 or 1 for online accessibility does not fully reflect the diversity of how data sets and related information are published in practice. This issue has been addressed by complementing the present review with an extended analysis that describes the online sharing of the agreed data sets and related information more fully. The intent has not been to change the criteria for review agreed by the Committee, but to expand on what "online accessibility" means in practical terms.

43. Ten case-studies¹⁰ were carried out on the online accessibility of the environmental data sets on the national websites of the countries of the pan-European region to increase the input and quality of the information obtained, as presented in section E below. This was achieved by evaluating in how many languages each national data set and related information was published, across how many online platforms, in what formats the data sets and related information was published, and the user-friendliness of each online platform. These additional review questions have been added as part of a composite that make up the overall rating of 1 for online accessibility, corresponding to 20 per cent of the overall performance score (see annex I).

B. Progress in data collection and in establishing the Shared Environmental Information System

44. The secretariat has assessed the performance of each country by thematic area, data set and review criteria. It has been important to study each of these components since the pan-European SEIS, which organizes, regulates and coordinates the pan-European environmental knowledge base, should provide data and information for the generation of assessments, whether for the environment as a whole or for each thematic area.

45. The SEIS performance status, as related to the availability and accessibility of the 67 SEIS data sets, have been rated for 50 pan-European countries: Albania, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kazakhstan, Kyrgyzstan, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, Norway, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, Serbia, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Tajikistan, the former Yugoslav Republic of Macedonia, Turkey, Turkmenistan, Ukraine, United Kingdom of Great Britain and Northern Ireland and Uzbekistan. The performance of Kosovo was also rated.¹¹

¹⁰ Austria, Bosnia and Herzegovina, Georgia, Germany, France, Kyrgyzstan, Lithuania, Russian Federation, Sweden, Switzerland.

¹¹ All references to Kosovo in this report should be understood to be in the context of United Nations Security Council resolution 1244 (1999).

46. Each country has been invited to validate the results from the review. At the time of preparation of the current document, 22¹² countries have provided the secretariat with their comments and in doing so validated their SEIS performance status in relation to the 67 data sets as well as the overall results presented below and in the following sections. An additional nine¹³ countries are presently reviewing the data but have not yet sent their feedback to the secretariat.

47. The review establishes that, out of the 67 SEIS-related data sets under investigation, 51 per cent were, as an overall average, available across all national websites for 50¹⁴ of the ECE member States and Kosovo.

48. There are several member States where nearly all, or a majority, of the 67 data sets were found to be available and accessible online. These include Armenia, Austria, Belarus, Ireland, Italy, Kazakhstan, the Russian Federation, the Republic of Moldova, Slovakia and Sweden. There are also several countries for which none or only a few data sets were available on national websites. These countries are still expected to validate the review and to confirm their SEIS performance status. The results are for this reason expected to change.

49. The validation process, as an integral part of the current review, and pending the establishment of a formal reporting mechanism, provides a SEIS development status concerning the production and online sharing of the environmental data sets. It is expected that these initial results will serve as a baseline against which future progress can be monitored and assessed.

50. It is interesting to note that significant progress has been made since the Working Group was mandated to conduct the review on the progress made by the reviewed countries in establishing SEIS. Examples provided in box 1 below demonstrate steps taken by two countries to improve the availability and accessibility of SEIS data sets and related information. These are not meant for comparison, only to demonstrate positive developments as part of the review process.

Box 1

Case study examples of improved performance scores

Belarus was assessed as having an overall performance score of 36 per cent in September 2015, referring to how environmental data sets were published on national websites. When reassessed in December 2015, Belarus had considerably improved the online accessibility of environmental data sets by updating available information as well as adding new relevant information. The changes resulted in an increase of its performance score to 77 per cent. This increase was largely due to content on environmental data sets now being collected and accessible on one national website (as facilitated by its National Environmental Monitoring System), with the content now provided in two languages (Russian and English) and the data sets updated according to ECE requirements. The national website also provides basic background information on methodology, a brief analysis of the data and the data

¹² Albania, Armenia, Austria, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Czech Republic, Germany, Finland, France, Italy, Kyrgyzstan, Republic of Moldova, Romania, Russian Federation, Serbia, Slovakia, Spain, Switzerland, the former Yugoslav Republic of Macedonia and Ukraine.

¹³ Belgium, Denmark, Georgia, Kazakhstan, Latvia, Luxembourg, Malta, Tajikistan and Uzbekistan.

¹⁴ Andorra, Canada, Israel, Monaco, San Marino and the United States of America were not included in the review.

sources. The data sets are easily accessible via the main page of the National Statistical Committee of the Republic of Belarus and clearly presented in a separate section of the website.

Italy was assessed in September 2015 as having an above-average performance score of 56 per cent. However, between September and December 2015, Italy managed to further improve its performance score to 87 per cent. The improvements consisted of updating available and related information as well as adding new data sets. The data sets were collected and are now shared through one platform that can be reached via a clearly indicated menu on the Institute for the Environmental Protection and Research website. The content on the website includes background information on all environmental indicators and associated data sets, information about the data structure and format, methodology and a brief interpretation of data. Data sets are presented in only one language (Italian), which may create obstacles for the international community in terms of accessibility.

51. The two case study examples in box 1 demonstrate some of the steps taken towards improving content accessibility (referring to relevant SEIS data and information). In principle, this was only a matter of uploading and updating content on pre-existing online platforms that facilitate data sharing and exchange. The same was true for several other countries. It should be highlighted that improving accessibility is most often not a matter of updating infrastructure, which can be resource intensive, but rather simply involves making existing content available online. It is positive to note that the current SEIS progress report has not only facilitated awareness concerning prevailing performance gaps, it also confirms that relevant data and information can be uploaded relatively easily and quickly.

C. Performance by thematic areas and individual data sets

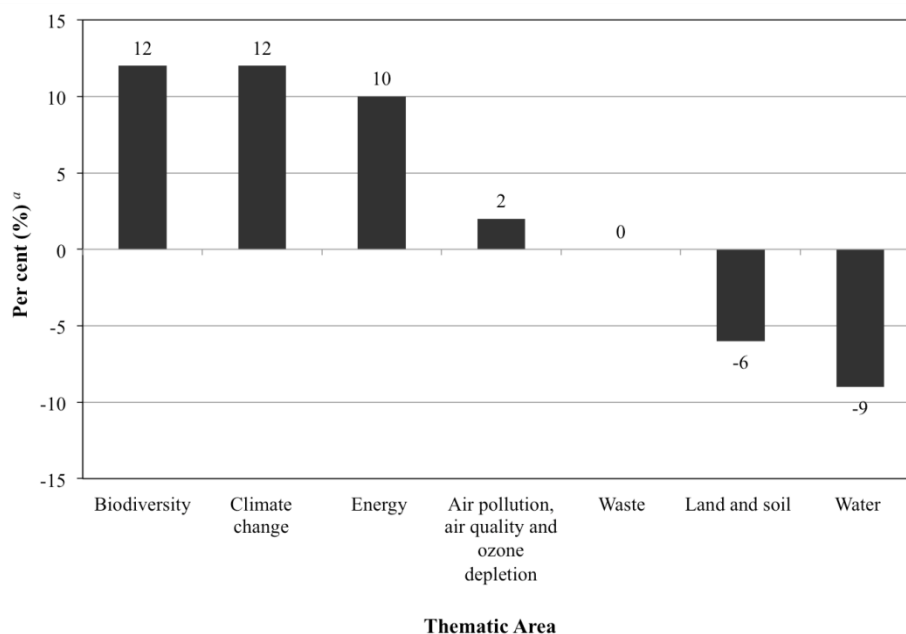
52. The availability and accessibility of data sets and related information vary significantly per thematic area.¹⁵ The performance score is above or the same as the overall average for biodiversity (63 per cent), climate change (63 per cent), energy (61 per cent), air pollution and ozone depletion (53 per cent) and waste (51 per cent) data sets. The performance score for land and soil (45 per cent) and water (42 per cent) are below the overall average.¹⁶

¹⁵ The themes correspond to regional priorities and/or Global Environmental Goals (See UNEP Global Environment Goals website <http://geg.informea.org/>).

¹⁶ The data sets associated with each thematic area can be found in ECE/CEP/2014/8.

53. These differences in reporting across the thematic areas, as a variation from the overall performance score of 51 per cent, is illustrated in figure 1.

Figure 1
Variations in performance scores as compared with the overall average^a



^a The chart depicts variations from the overall performance score of 51 per cent (see para. 47).

54. Reviewing individual data sets and related information demonstrate that the emissions of nitrogen oxides and sulphur dioxide into the air are the most accessible data sets. For over 8 out of 10 countries¹⁷ (88 and 83 per cent, respectively) the relevant data are accessible online. These are followed by other types of air emission data (e.g., carbon monoxide, of non-methane volatile organic compounds and of ammonia), waste data (e.g., total waste generation), greenhouse gas emissions, biodiversity data (e.g., total areas under protection), and air quality data (e.g., concentration of nitrogen dioxide), that are accessible, on average, in more than 6 out of 10 countries (62 per cent). Figure 2 presents the 20 data sets with the highest performance scores.¹⁸

55. The least accessible data sets are those concerned with water (e.g., populations connected and not-connected to water supply industry and water exploitation index). These are followed by other water-related data sets and persistent organic pollutants air emission data sets, as well as waste data sets that are accessible, on average, in 30 to 39 per cent of all countries. Figure 3 presents a list of the 20 data sets with the lowest performance scores.¹⁹

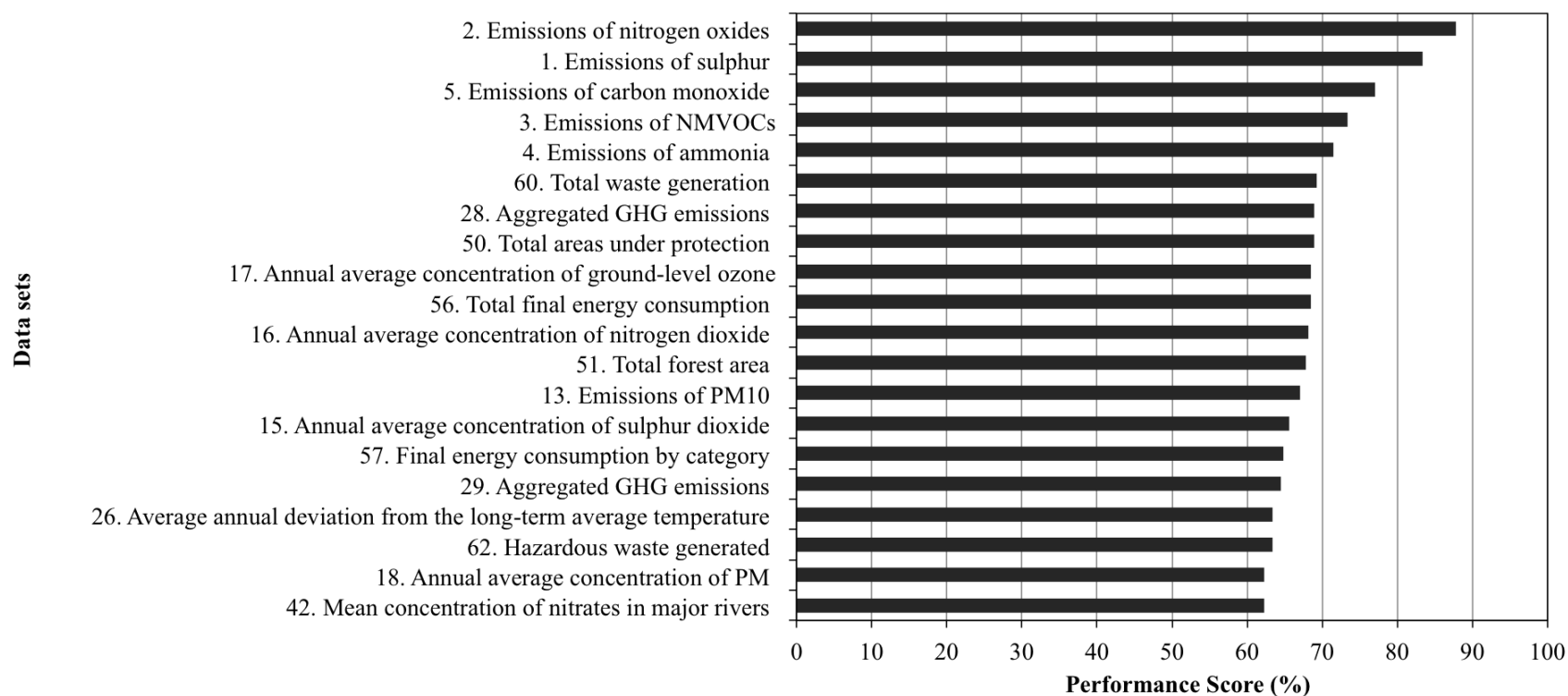
¹⁷ Covering the same member States indicated in paragraph 45, as well as Kosovo.

¹⁸ See also annex II for the legal obligations associated with these data sets.

56. Water-related data sets are seemingly not published adequately online, as well as the associated background information on methodologies, analysis of the data and data sources. These results are not fully in line with what was found in the *European Neighbourhood and Partnership Instrument (ENPI) SEIS East Region Synthesis Report*, which found increasing accessibility to environmental indicators associated with water-related data sets.¹⁹ Differences in accessibility can presently not be fully explained in terms of variations in legal reporting obligations, nor by variations in national legislation and confidentiality requirements. It has furthermore been noted that certain data sets (e.g., concerned with ozone-depleting substances) are no longer being collected in some countries. This latter issue will have implications for the overall performance score of each country and would suggest that the data sets included in the review need to take account of evolving reporting obligations.

¹⁹ (Luxembourg, Publications Office of the European Union, 2015). The geographical area covered by the project is laid out in regulation EC/1638/2006 establishing a European Neighbourhood and Partnership Instrument, covering Armenia, Azerbaijan, Belarus, Georgia, the Republic of Moldova and Ukraine (see www.eea.europa.eu/publications/enpi-seis-east-region-synthesis-report).

Figure 2
Shared Environment Information System data sets with highest performance scores

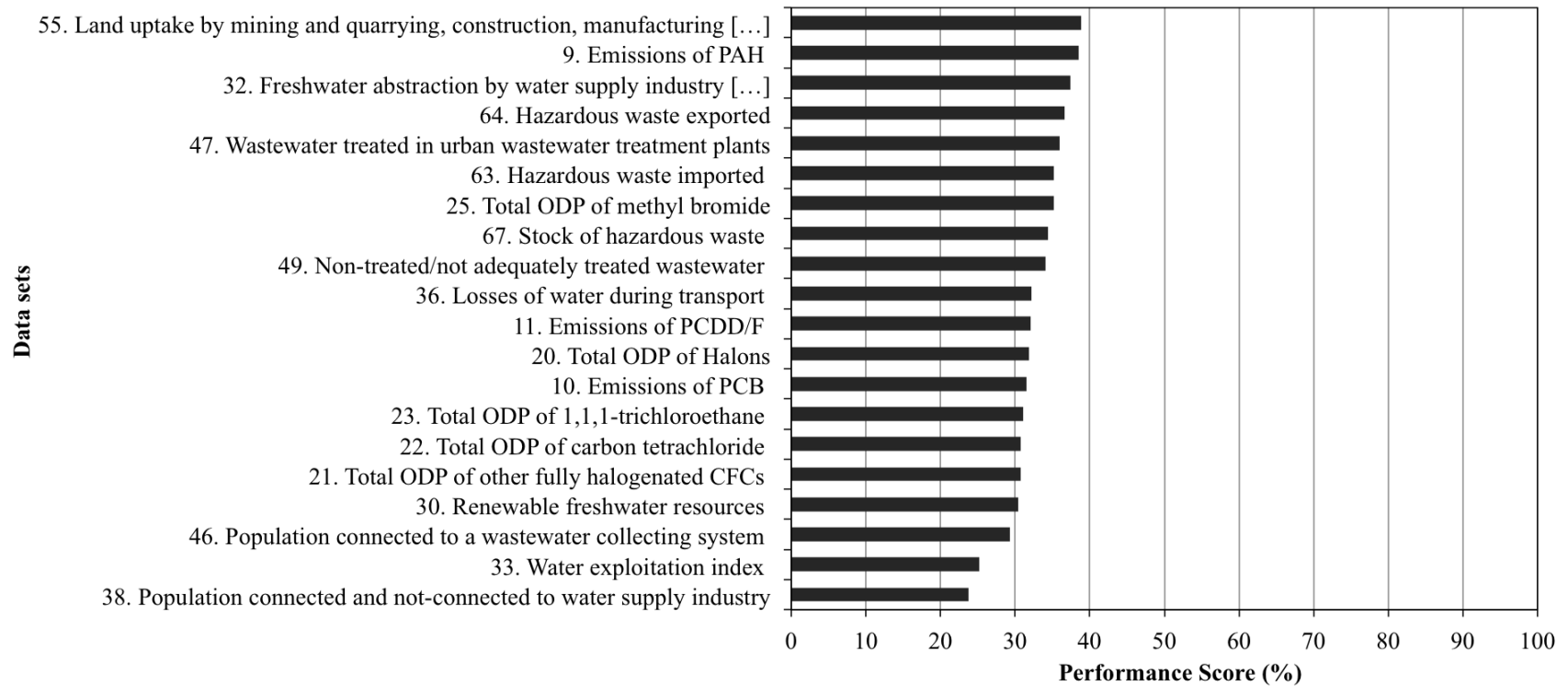


Notes: The numbering of the data sets is in accordance with the list of 67 specific data sets for the pan-European SEIS agreed by the Working Group (see ECE/CEP/AC.10/2015/2, annex). See annex II, section A, to the present document for the legal obligations associated with each data set.

Abbreviations: GHG: greenhouse gas; NMVOC: non-methane volatile organic compounds; PM: particulate matter; PM10 = particles less than or equal to 10 micrometres in diameter.

Figure 3

Shared Environment Information System data sets with lowest performance scores



Notes: The numbering of the data sets is in accordance with the list of 67 specific data sets for the pan-European SEIS agreed by the Working Group (see ECE/CEP/AC.10/2015/2, annex). See annex II, section B, to the present document for the legal obligations associated with each data set.

Abbreviations: CFC = chlorofluorocarbon; ODP = ozone depletion potential; PAH = polycyclic aromatic hydrocarbons; PCB = polychlorinated biphenyl; PCDD/F = polychlorinated dibenzo-p-dioxin and polychlorinated dibenzofuran.

D. Performance by review criteria

57. It is encouraging to note that for nearly all data sets that have been published online, member States also provide information on methodologies, data interpretation and use, and data sources. On average, it was found that information on data sources and interpretation is provided on average in 96 and 97 per cent of the cases, respectively, and a link to applied methodologies was provided for 90 per cent of the published data sets. As noted in section A above, this review cannot make any inferences as regards the quality of this material, but can only confirm that it is accessible online.

58. As in the preceding section, the coverage varies according to thematic area and individual data sets. The information available on “data interpretation and use” varies between 84 per cent (3 data sets) and 100 per cent (31 data sets). “Data sources” range from 81 per cent (1 data set) up to 100 per cent (27 data sets) and the range for information available on “production methodologies” is between 77 per cent (1 data set) and 100 per cent (4 data sets).

59. It is expected that the rating concerned with the methodologies applied may decline when assessed against its fulfilment of internationally accepted standards. The same argumentation applies for materials on data interpretation and use, as the performance score may decline if aspects such as language and policy targets are taken into account.

60. It is relevant to highlight that member States have not been as successful in regularly updating the content available online. It was in many cases found that time series were out of date, meaning that times series more recent than 2012 were not available. In this instance it was found that 79 per cent of the data provided was up to date, representing a range between 64 per cent (1 data set) to 95 per cent (1 data set). There was in fact not a single data set for which all countries provided up-to-date time series according to the established review criterion.

61. Finally, as illustrated by the examples provided in box 1, it is expected that the absence of up-to-date information may simply be part of a delay in publishing information that is already available for the respective entities and/or “focal points”. The foreseen reporting mechanism may for this reason facilitate the more regular updating of information and monitoring of progress in this area.

E. Extended analysis on data accessibility

62. As part of the review process, the secretariat realized that the approaches taken by member States to share and present information online differ significantly. This reflects varying legislative backgrounds, ministerial setups, competencies and strategies at the national level. It is beyond the scope of this review to analyse the contextual background for each pan-European country; however, the consequence is that the diversity in how SEIS-relevant data sets are published online is not fully reflected in the results. A member State may have all its data available on one website, whereas another may have several “focal points” and information spread across many platforms and types of media. Naturally, in the latter case, this presents a problem when searching, accessing and trying to use data.

63. To further demonstrate, most websites still present all publicly available information in the local language of the country in question. Sharing content in a second language or more (English, Russian) is still rare. This creates a barrier for the international community when trying to utilize published data. Another example is that most websites seem to have clear contact information for relevant “focal points” (as stipulated by the Arhus

Convention), while user-friendliness varies significantly both in terms of clarity and the way data are presented online (referring in this case to the format). These types of variations were not captured by the initial steps taken by the Working Group.

64. To address this shortcoming, the Working Group conducted an extended analysis using the review questions presented in annex I. The extended analysis was done for the following countries: Austria, Bosnia and Herzegovina, Georgia, Germany, France, Kyrgyzstan, Lithuania, Russian Federation, Sweden and Switzerland. Box 2 presents a summary of the results for each country.

Box 2

Summary results from an extended analysis on online accessibility for selected countries

Austria

- Most of the data sets (80 per cent) are published online.
- Information is principally located on two platforms (87 per cent), but some content is spread out across four additional (international and national) platforms.
- Data sets are published online in varying formats, e.g., text, graphs (dynamic and static) and reports.
- Nearly all data sets have clear contact information but user-friendliness varies significantly depending on the platform.
- Data sets are missing for water use and abstraction and emission of ozone-depleting substances. Measurements have been stopped entirely in the latter case.
- Most of the information is presented in only one language, which complicates the search for data.

Bosnia and Herzegovina

- More than half of the data sets (63 per cent) are published online.
- Information is located on one platform that provides easy access to published data sets.
- All data sets are presented online both in the format of text and graphs.
- All data sets have clear contact information, but only around 60 per cent of the data sets can be considered as user-friendly.
- All biodiversity and waste data sets are published; however, soil and land as well as air pollution and ozone depletion data sets have several information gaps.
- Both national and international communities can easily access the information as all published data sets are presented in four languages.

France

- Around half of the data sets (57 per cent) are published online.
- Information is spread across two platforms that do not meet the criteria for user-friendliness (referring in this case to the platforms).
- Most of the information is presented in only one language (79 per cent), which complicates the search for data.
- Most of the data sets do not have clear contact information.
- All energy and most air pollution and ozone depletion data sets are presented online, while climate change, water, biodiversity, land and soil, and waste data sets have a below average performance score in this regard (ranging from 35 to 50 per cent).

- More than half of the data sets are shared through both reports as well as online using tables, graphs and text.

Georgia

- Less than half of the data sets (45 per cent) are published online.
- Information is located on one platform that provides easy access to published data sets.
- All data sets are published online in text or Excel table format.
- Data sets related to waste, land and soil and energy are missing.
- Available data sets are not completely user-friendly, but clear contact information is provided for all of them.
- Information is presented in two languages, which make it easier for national and international communities to access the data.

Germany

- More than half of the data sets (60 per cent) are published online.
- Information is widely spread across four websites, which complicates access to the published data sets.
- Almost all information is presented in both text and graphic formats.
- Only 20 per cent of the published data sets can be considered as user-friendly, but clear contact information is provided for all data sets.
- Online sharing of water- and biodiversity-related data sets is significantly low (ranging between 25 and 30 per cent).
- More than half of the information is presented in two languages, which makes it moderately easy to access information for national and international communities.

Kyrgyzstan

- Most of the data sets (70 per cent) are published online.
- Information is spread across two platforms that meet the criteria for user-friendliness (referring in this case to the platforms).
- All information is presented in only one language, which complicates the search for data.
- Clear contact information is provided for all data sets.
- Only energy, land and soil data sets are not published fully online.

Lithuania

- More than half of the data sets (67 per cent) are published online.
- Information is spread across two platforms, only one of which is user-friendly.
- Around half of the information is presented in both text and graphic formats.
- No clear contact information is provided.
- No energy data sets are shared, and only half of the waste as well as the land and soil data sets are published online.
- Half of the information is presented in two languages, which makes it moderately easy to access information for national and international communities.

Russian Federation

- Nearly all data sets (91 per cent) are published online.
- Information is principally located on one platform (85 per cent), but some content is spread out across three additional (national) platforms.
- Information is presented in both text and graphic formats.
- No clear contact information is provided.

- Only emission-related data sets are not published fully online.
- All of the information is presented in only one language, which creates obstacles for international communities trying to access the data sets.

Sweden

- Nearly all data sets (98 per cent) are published online.
- Information is located on one platform that provides easy access to published data sets. The website is interactive and completely user-friendly.
- All information is presented in both text and graphic formats.
- Clear contact information is provided for all data sets.
- Most of the information is presented in only one language, which creates obstacles for international communities trying to access the data sets.

Switzerland

- More than half of the data sets (67 per cent) are published online.
- Information is located on one platform, which provides easy and user-friendly access to the published data sets.
- All information is shared through the “focal points” website in report format as well as in text, tables and graphs.
- Only water-related data sets are reported below average (40 per cent).
- Both national and international communities can easily access the information as all published data sets are presented in four languages.

65. The results presented throughout box 2 and in table 2 demonstrate some of the variations in content and quality across member States, referring to the number of data sets published, website user-friendliness, thematic areas covered as well as languages used, etc. The point of this extended analysis has been twofold. First and foremost, it highlights that the initial approach has not been satisfactory in addressing variations in online accessibility. Secondly, it emphasizes the need to further develop the reporting mechanism for member States to address and monitor these performance gaps over time. It is crucial that the reporting mechanism can capture these types of variations. In this context, it is noted that, e.g., the Working Group of the Parties to the Protocol on PRTRs at its fourth meeting (Madrid, 26 November 2015) encouraged Governments and stakeholders to consider implementation of the Protocol and SEIS in synergy.²⁰ The Parties to the Protocol face similar challenges and the Protocol on PRTRs provides instructions on how to present the data in the registers in a clear and user-friendly way that can also facilitate the work on the implementation of SEIS.

66. Through decision V/1, the Meeting of the Parties to the Aarhus Convention also mandated the Task Force on Access to Information continue monitoring and supporting the development of SEIS across the region. At its fourth meeting (Geneva, 8–10 December 2015), the Task Force reiterated the importance of practical measures ensuring public access to up-to-date, accurate and comparable environmental information and suggested that release of such information through the Internet should be accompanied, as appropriate, by information on data source, the date of its production or update, information on production and verification methodology, validation methods and interpretation data. Greater integration of SEIS with the Infrastructure for Spatial Information in the European

²⁰ See document PRTR/WG.1/2015/Inf.4 (available from www.unece.org/prtrwgp4.html).

Community (INSPIRE) and other processes related to the management of geospatial information was considered useful.²¹

Table 2
Results from the extended analysis

<i>Questions</i>	<i>Country</i>									
	<i>AUT</i>	<i>BIH</i>	<i>FRA</i>	<i>GEO</i>	<i>DEU</i>	<i>KGZ</i>	<i>LTU</i>	<i>RUS</i>	<i>SWE</i>	<i>CHE</i>
In how many languages are the national data sets and related information published?	2	4	2	2	2	1	2	1	1	4
Across how many online platforms are the national data sets and related information published?	6	1	2	1	4	2	2	4	1	1
In how many formats are the data sets and related information published?	2	1	2	1	2	2	2	2	1	2
How user friendly is the online platform? (%)	70	60	80	60	80	90	70	70	100	100

Abbreviations: AUT = Austria; BIH = Bosnia and Herzegovina; CHE = Switzerland; DEU = Germany; FRA = France; GEO = Georgia; KGZ = Kyrgyzstan; LTU = Lithuania; RUS = Russian Federation; SWE = Sweden.

²¹ See document AC/TF.AI-4/Inf. 5 (available from www.unece.org/env/pp/aarhus/tfai4.html).

Annex I

Reviewing online accessibility

<i>Review questions</i>	<i>Description</i>
In how many languages are the national data sets and related information published?	Tentatively this was divided into three categories (national language; national languages plus English or Russian; and more than two languages) once data has been collected.
Across how many online platforms are the national data sets and related information published?	Data should not only be regularly updated, but also presented in a clear manner. This means that the data sets and related information should be presented in a cohesive manner. If the data sets are fragmented across many platforms this indicates low accessibility.
In what formats are the data sets and related information published?	This is foreseen to cover three categories: whether the data set is only published in a report format (1); only published online (not as a report); (2) or both in a report format and online (3). It should be distinguished that online publishing implies that the data sets are shared through specific infrastructure in this case (e.g., graphical representation of the data, etc.).
How user-friendly is the online platform(s)?	User-friendliness is subjective and principally refers to the site where the data sets and related information are published. Determining user-friendliness is done through posing a number of sub-questions in a YES/NO format as follows: <ul style="list-style-type: none"> (a) Is the platform easy to use? (b) Are there available search functions? (c) Are the data sets presented in text format? (d) Are the data sets presented in graphic format? (e) Are there clear contact points for the public to access more information?

Annex II

Legal obligations associated with the Shared Environment Information System data sets

A. Legal obligations related to data sets with the highest performance scores

<i>No.</i>	<i>Data set</i>	<i>Grounds for collecting, updating and sharing data set</i>
2	Emissions of nitrogen oxides expressed in nitrogen dioxide (total, stationary and mobile sources)	Pan-European priority; Global Environmental Goal; data collection under ECE CLRTAP and Protocol on PRTRs; health and well-being considerations under the green economy concept; data collection under the Montreal Protocol
1	Emissions of sulphur expressed in sulphur dioxide (total, stationary and mobile sources)	Pan-European priority; Global Environmental Goal; data collection under ECE CLRTAP and Protocol on PRTRs; health and well-being considerations under the green economy concept; data collection under the Montreal Protocol
5	Emissions of carbon monoxide (total, stationary and mobile sources)	Pan-European priority; Global Environmental Goal; data collection under ECE CLRTAP and Protocol on PRTRs; health and well-being considerations under the green economy concept; data collection under the Montreal Protocol
3	Emissions of non-methane volatile organic compounds (NMVOCs) (total, stationary and mobile sources)	Pan-European priority; Global Environmental Goal; data collection under ECE CLRTAP and Protocol on PRTRs; health and well-being considerations under the green economy concept; data collection under the Montreal Protocol
4	Emissions of ammonia (total, stationary and mobile sources)	Pan-European priority; Global Environmental Goal; data collection under ECE CLRTAP and Protocol on PRTRs; health and well-being considerations under the green economy concept; data collection under the Montreal Protocol
60	Total waste generation and its transfer	Pan-European priority (chemicals and waste); Global Environmental Goal; data collection under ECE Protocol on PRTRs and the Basel Convention
28	Aggregated GHG emissions including emissions/removals from LULUCF	Pan-European priority; Global Environmental Goal; data collection under UNFCCC
50	Total areas under protection (IUCN categories)	Pan-European priority; Global Environmental Goal; resilience considerations under the green economy concept; CBD
17	Annual average concentration of ground-level ozone	Pan-European priority; Global Environmental Goal; data collection under ECE CLRTAP; health and well-being considerations under the green economy concept; data collection under the Montreal Protocol
56	Total final energy consumption	Global Environmental Goal; efficiency considerations under the green economy concept; data collection for the

<i>No.</i>	<i>Data set</i>	<i>Grounds for collecting, updating and sharing data set</i>
		International Energy Agency energy balance
16	Annual average concentration of nitrogen dioxide	Pan-European priority; Global Environmental Goal; data collection under ECE CLRTAP; health and well-being considerations under the green economy concept; data collection under the Montreal Protocol
51	Total forest area (forest and other wooded land)	Pan-European priority; Global Environmental Goal; resilience considerations under the green economy concept; CBD
13	Emissions of PM ₁₀ (total, stationary and mobile sources)	Pan-European priority; Global Environmental Goal; data collection under ECE CLRTAP and Protocol on PRTRs; data collection under the Montreal Protocol
15	Annual average concentration of sulphur dioxide	Pan-European priority; Global Environmental Goal; data collection under ECE CLRTAP; health and well-being considerations under the green economy concept; data collection under the Montreal Protocol
57	Final energy consumption by category (industry, transport, households, commercial and public services, agriculture forestry and fishery, non-specified, non-energy use)	Global Environmental Goal; efficiency considerations under the green economy concept; data collection for the International Energy Agency energy balance
29	Aggregated GHG emissions by energy, industrial processes, solvent and other product use, agriculture, land use and forestry, waste	Pan-European priority; Global Environmental Goal; data collection under UNFCCC
26	Average annual deviation from the long-term average temperature	Pan-European priority; Global Environmental Goal; data collection under UNFCCC
62	Hazardous waste generated and its transfer and its transfer	Pan-European priority (chemicals and waste); Global Environmental Goal; data collection under ECE Protocol on PRTRs and the Basel Convention
18	Annual average concentration of PM	Pan-European priority; Global Environmental Goal; data collection under ECE CLRTAP and the Montreal Protocol
42	Mean concentration of nitrates in major rivers	Pan-European priority; Global Environmental Goal; resilience, efficiency, health and well-being considerations under the green economy concept; data collection through the UNEP/United Nations Statistics Division questionnaire; data collection under the Protocol on Water and Health to the ECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes

Abbreviations: Basel Convention = Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal; CBD = Convention on Biological Diversity; CLRTAP = Convention on Long-range Transboundary Air Pollution; GHG = greenhouse gas; IUCN = International Union for Conservation of Nature; LULUCF = land use, land-use change and forestry; Montreal Protocol = Montreal Protocol on Substances that Deplete the Ozone Layer to the Vienna Convention for the Protection of the Ozone

Layer; PM = particulate matter; PM₁₀ = particles less than or equal to 10 micrometres in diameter;
UNFCCC = United Nations Framework Convention on Climate Change.

B. Legal obligations related to data sets with the lowest performance scores

<i>No.</i>	<i>Data set</i>	<i>Grounds for collecting, updating and sharing data set</i>
55	Land uptake by mining and quarrying, construction, manufacturing, technical infrastructure, transport and storage infrastructure, residential including recreational, landfills waste dumps tailing pits	Pan-European priority; Global Environmental Goal; resilience considerations under the green economy concept
9	Emissions of polycyclic aromatic hydrocarbon (PAH) (total, stationary and mobile sources)	Pan-European priority; Global Environmental Goal; data collection under ECE CLRTAP and Protocol on PRTRs; health and well-being considerations under the green economy concept; data collection under the Montreal Protocol
32	Freshwater abstraction by water supply industry, households, agriculture forestry and fishing, manufacturing, electric industry, other economic activities	Pan-European priority; Global Environmental Goal; resilience, efficiency, health and well-being considerations under the green economy concept; data collection through the UNEP/United Nations Statistics Division questionnaire; data collection under the Protocol on Water and Health to the ECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes
64	Hazardous waste exported	Pan-European priority (chemicals and waste); Global Environmental Goal; data collection under the Protocol on PRTRs and the Basel Convention
47	Wastewater treated in urban wastewater treatment plants (primary, secondary, tertiary)	Pan-European priority; Global Environmental Goal; resilience, efficiency, health and well-being considerations under the green economy concept; data collection through the UNEP/United Nations Statistics Division questionnaire; data collection under the Protocol on Water and Health
63	Hazardous waste imported	Pan-European priority (chemicals and waste); Global Environmental Goal; data collection under the Basel Convention
25	Total ODP of methyl bromide	Pan-European priority; Global Environmental Goal; data collection under ECE CLRTAP; health and well-being considerations under the green economy concept; data collection under the Montreal Protocol
67	Stock of hazardous waste	Pan-European priority (chemicals and waste); Global Environmental Goal; data collection under the Basel Convention
49	Non-treated/not adequately treated wastewater	Pan-European priority; Global Environmental Goal; resilience, efficiency, health and well-being

<i>No.</i>	<i>Data set</i>	<i>Grounds for collecting, updating and sharing data set</i>
		considerations under the green economy concept; data collection through the UNEP/United Nations Statistics Division questionnaire; data collection under the Protocol on Water and Health
36	Losses of water during transport	Pan-European priority; Global Environmental Goal; resilience, efficiency, health and well-being considerations under the green economy concept; data collection through the UNEP/United Nations Statistics Division questionnaire; data collection under the Protocol on Water and Health
11	Emissions of polychlorinated dibenzo-p-dioxin and polychlorinated dibenzofuran (PCDD/F) (total, stationary and mobile sources)	Pan-European priority; Global Environmental Goal; data collection under ECE CLRTAP and Protocol on PRTRs; health and well-being considerations under the green economy concept; data collection under the Montreal Protocol
20	Total ODP of Halons	Pan-European priority; Global Environmental Goal; data collection under ECE CLRTAP; health and well-being considerations under the green economy concept; data collection under the Montreal Protocol
10	Emissions of polychlorinated biphenyl (PCB) (total, stationary and mobile sources)	Pan-European priority; Global Environmental Goal; data collection under ECE CLRTAP; health and well-being considerations under the green economy concept; data collection under the Montreal Protocol
23	Total ODP of 1,1,1-trichloroethane	Pan-European priority; Global Environmental Goal; data collection under ECE CLRTAP; health and well-being considerations under the green economy concept; data collection under the Montreal Protocol
22	Total ODP of carbon tetrachloride	Pan-European priority; Global Environmental Goal; data collection under ECE CLRTAP; health and well-being considerations under the green economy concept; data collection under the Montreal Protocol
21	Total ODP of other fully halogenated CFCs	Pan-European priority; Global Environmental Goal; data collection under ECE CLRTAP; health and well-being considerations under the green economy concept; data collection under the Montreal Protocol
30	Renewable freshwater resources	Pan-European priority; Global Environmental Goal; resilience, efficiency, health and well-being considerations under the green economy concept; data collection through the UNEP/United Nations Statistics Division questionnaire; data collection under the Protocol on Water and Health

<i>No.</i>	<i>Data set</i>	<i>Grounds for collecting, updating and sharing data set</i>
46	Population connected to a wastewater collecting system (with and without treatment facilities)	Pan-European priority; Global Environmental Goal; resilience, efficiency, health and well-being considerations under the green economy concept; data collection through the UNEP/United Nations Statistics Division questionnaire; data collection under the Protocol on Water and Health
33	Water exploitation index	Pan-European priority; Global Environmental Goal; resilience, efficiency, health and well-being considerations under the green economy concept; data collection through the UNEP/United Nations Statistics Division questionnaire; data collection under the Protocol on Water and Health
38	Population connected and not-connected to water supply industry	Pan-European priority; Global Environmental Goal; resilience, efficiency, health and well-being considerations under the green economy concept; data collection through the UNEP/United Nations Statistics Division questionnaire; data collection under the Protocol on Water and Health

Abbreviations and acronyms: Basel Convention = Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal; CFCs = chlorofluorocarbons; CLRTAP = Convention on Long-range Transboundary Air Pollution; Montreal Protocol = Montreal Protocol on Substances that Deplete the Ozone Layer to the Vienna Convention for the Protection of the Ozone Layer; ODP = ozone depletion potential.