State of SEIS implementation in 2018
Country Factsheet
UZBEKISTAN

Uzbekistan has been working on establishing SEIS through the implementation of the SEIS principles and the three pillars: Content, Infrastructure and Cooperation. Uzbekistan participates in the work of the United Nations Economic Commission for Europe (UNECE) Working Group on Environmental Monitoring and Assessment (WGEMA) and the UNECE Joint Task Force (JTF) on Environmental Statistics and Indicators, which support countries in Europe and Central Asia to establish SEIS by 2021. The current document provides an overview of the state of SEIS implementation in Uzbekistan and offers recommendations on how to fully achieve the SEIS 2021 target.

KEY MESSAGES

Content

- Uzbekistan has been working on making UNECE environmental indicators available and accessible

Infrastructure

- Majority of the data is still only available in paper format or is not made available online
- Lists of environmental information and indicators are compiled by the State Committee on Statistics and the State Committee on Ecology and Environmental Protection (and correspond to the UNECE environmental indicators' list), but the time series are not complete

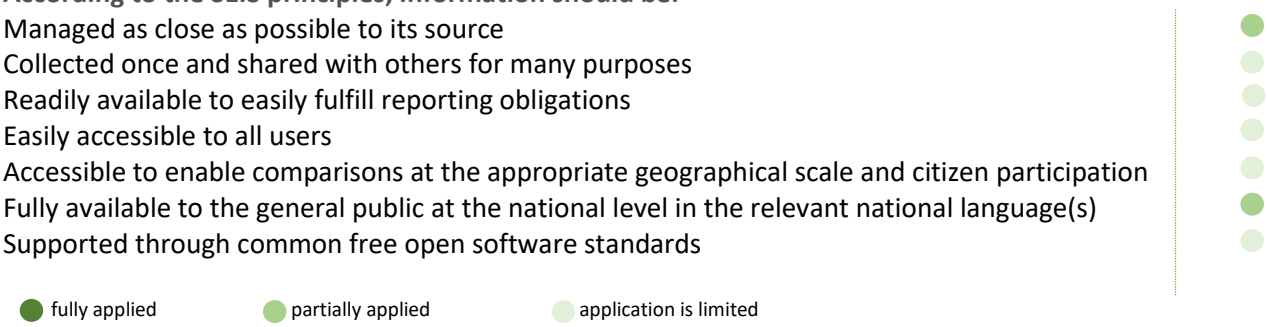
Cooperation

- Cooperation and interaction on information engagement between data producers require development. There are no legal and administrative regulations on information production and exchange
- Uzbekistan participates in the UNECE indicator-related processes and SEIS-related projects supported by the European Union (EU) and the European Environment Agency (EEA)
- The EU FLERMONECA project[1] on environmental monitoring in Central Asia was successfully implemented

THE SEVEN SEIS PRINCIPLES[2] AND STATE OF THEIR APPLICATION IN UZBEKISTAN[3]

According to the SEIS principles, information should be:

Managed as close as possible to its source
Collected once and shared with others for many purposes
Readily available to easily fulfill reporting obligations
Easily accessible to all users
Accessible to enable comparisons at the appropriate geographical scale and citizen participation
Fully available to the general public at the national level in the relevant national language(s)
Supported through common free open software standards



[1]The EU-funded project "Forest and Biodiversity Governance Including Environmental Monitoring" (FLERMONECA project)
[2] More information on the SEIS principles is available at: https://www.eionet.europa.eu/seis/principles
[3] The Evaluation is based on expert opinion; there are possible changes or clarifications after discussions with Uzbekistan's counterparts.

MANAGEMENT OF ENVIRONMENTAL INFORMATION – OVERVIEW

Organizations responsible for collecting, producing, managing and sharing environmental data and information	The State Committee for Ecology and Environmental Protection The State Committee on Statistics The Hydrometeorological Service of the Ministry of Emergency Situation The Main Department of Geology The Ministry of Agriculture and Water Resources The Ministry of Healthcare The Housing and Communal Services Department (Uzkommunkhizmat) Academy of Science NGOs
Accessibility and availability of environmental information, data and indicators	WHERE?: On the State Committee for Ecology and Environmental Protection, the State Committee on Statistics (upon request), and the Hydrometeorological Service websites, relevant Conventions websites In the SoER, the Open Data Portal (Ecology) In reports to MEAs (UNFCCC, UNCCD, UNCBD, BRS etc.) IN WHAT FORMATS?: Reports (e.g. SoER), additional information provided (for some indicators), metadata provided (for some indicators) IN WHICH LANGUAGES?: Uzbek, Russian
Environmental indicators in use	UNECE environmental indicators (XX indicators) SDGs (potential needs to be studied) OECD Green Growth indicators (potential needs to be studied) Reports to MEAs

air water climate change waste biodiversity land cover soil env. statistics public relations information dissemination

CONTENT and INFRASTRUCTURE — FROM INDICATOR PRODUCTION TO USE

STATE OF PRODUCTION AND SHARING OF ENVIRONMENTAL INDICATORS

Some indicators produced locally by the State Committee on Statistics are format-compatible with the UNECE set of indicators. The 2016 UNECE analysis assessed the following parameters of the indicators' quality: availability on the internet, updates, methodology used, provided analysis and indication of sources (the results are presented in the table below).

Indicators (number of data sets underpinning them)	I	U	M	A	S
A. Air pollution and ozone depletion					
A1: Emissions of pollutants into the atmospheric air					
A2: Ambient air quality in urban areas					
A3: Consumption of ozone-depleting substances					
B. Climate change					
B1: Air temperature					
B2: Atmospheric precipitation					
B3: Greenhouse gas emissions					
C. Water					
C1: Renewable freshwater resources					
C2: Freshwater abstraction					
C3: Total water use					
C5: Water supply industry and population connected					
C10: BOD and concentration of ammonium in rivers					
C11: Nutrients in freshwater					
C14: Population connected to wastewater treatment					
C15: Wastewater treatment facilities					
C16: Polluted (non-treated) wastewater					

D. Biodiversity					
D1: Protected areas					
D3: Forests and other wooded land					
D4: Threatened and protected species					
E. Land and soil					
E1: Land uptake					
G. Energy					
G1: Final energy consumption					
G2: Total primary energy supply					
I. Waste					
I1: Waste generation					
I2: Management of hazardous waste					

less than 33% 33 to 67% over 67% of the maximum possible number

Rating criteria:

I–*Availability of data sets on the internet;* **U**–*Time of update*; **M** - *Conformity with methodological standards;* **A**–*Analysis provided;* **S**– *Indication of the source of an indicator.*

QUALITY OF SEVEN DATA FLOWS BASED ON UZBEKISTAN'S SELF-ASSESSMENT (2018)

Uzbekistan has conducted a self-assessment of 7 data flows underpinning 3 UNECE indicators, selected for the SEIS mid-term review. The mid-term review was based on the SEIS Assessment Framework and a questionnaire with 25 questions on quality, aligned with quality criteria used by the UNECE Statistical Division and EEA, and corresponding to the three SEIS pillars:

Relevance Accuracy Timeliness and punctuality Accessibility Clarity Comparability Institutional and organizational arrangements

Extract: Data Flow - SO_2[a]

User feedback is collected passively and used for multiple purposes. Information has rarely been improved for user convenience

Use of data produced by themselves and other producers. Use of assessments received from modelling. Data validation occurs occasionally. Data revision is conducted (due to methodological changes, new data and errors). Data from other sources is available for comparison.

Annual dissemination. Deviation: up to 8 weeks. Timeliness: less than 1-2 years.

Reports (i.e. SoER). Data is available fragmentally at: https://data.gov.uz/ru/datasets/5660

The procedures are not applied to data quality management. Metadata is available. Information on data quality, methodology, data sources, timeframe and geographical coverage, contacts are provided in Russian and Uzbek

Internationally agreed procedures are not applied. Time series are not complete

There are legal and administrative regulations on information production and exchange

[a]**Theme:** A. Air pollution and ozone depletion / **Indicator:** A2. Ambient air quality in urban areas / **Data flow:** Annual average concentration of sulphur dioxide

Atmospheric air: According to the self-assessment carried out by Uzbekistan, data on PM_{10}, SO_2, NO_2 and O_3 is collected by the State Committee on Ecology and Environmental Protection. Data validation occurs occasionally, while revision of the data is regularly conducted. Information is annually disseminated and presented in reports, including SoER. Metadata is provided. The information is published in both Uzbek and Russian. There are legal and administrative regulations on information production and exchange.

Areas to improve: Internationally agreed procedures are not applied for data quality management. User feedback is collected passively. Deviation of data release could be up to 8 weeks. There is no indication of the last content update. No reference is made to measuring methods. Data is not presented in visuals.

Water: According to the self-assessment carried out by Uzbekistan, data includes the annual averages of BOD_5 and concentrations of NH_4 are collected. Data validation rarely occurs and data revision is conducted occasionally (due to errors). Metadata and additional information are provided;, and data is presented in the reports (i.e. SoER). There is a link to the national policy and targets, and an indication of a legal basis for information exchange. The information is published in both Russian and Uzbek. *Areas to improve:* User feedback is collected passively. Internationally agreed procedures are only partially applied to data quality management. Deviation of data release could be up to 8 weeks. There is no reference to measuring methods. Data is not visually presented.

Biodiversity: According to the self-assessment carried out by Uzbekistan, data on the total territory of protected areas is available in the form of a map on the Committee's website, and in the national report to the UNCBD. Metadata, information on data quality, methodology, data sources, timeframe and geographical coverage, and relevant contacts are provided. There is a link to the national policy and targets, and a legal basis for information exchange is indicated. *Areas to improve:* User feedback is collected passively. Deviation of data release could be up to 8 weeks. There is reference to measuring methods, however it is not indicated whether the national categories of protected areas comply with the IUCN categories.

Summary of selected data flows quality

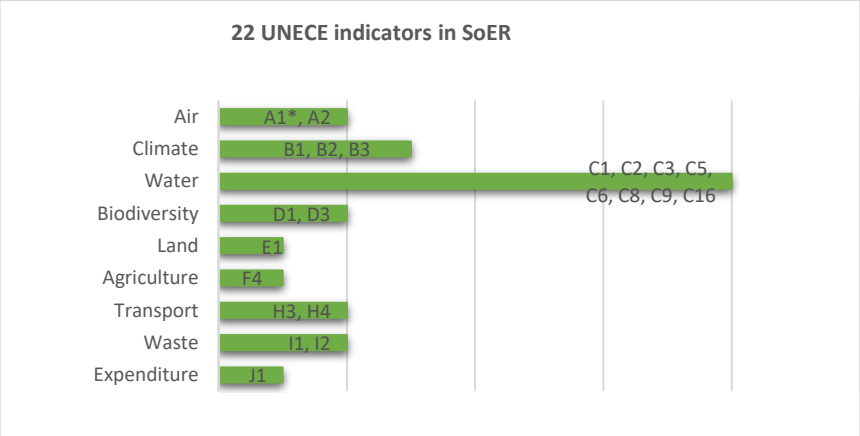
Regarding 7 data flows underpinning 3 UNECE indicators, Uzbekistan has reported on a long time series of continuous data (around 20 years for air quality monitoring) with no breaks. In spite of the attempts to make data available online with the assistance of international organisations (an open data portal was established within the E-Governance programme[4]), the majority of data remains available in paper format only. Data on biodiversity is available on the website of the Institute of Flora and Fauna Gene Pool, in Uzbek only. SIC ICWC conducted work related to the collection of water and environmental information on a regional scale (the Aral Sea basin). Part of information is therefore readily available, while the remaining data is password-protected and only available to registered users.

Uzbekistan self-ranked its overall national performance as **72,876%** - moderate performance that requires improvement.

USE OF ENVIRONMENTAL INDICATORS

Use of environmental indicators in environmental assessments, state of the environment reports and other thematic environmental reports or statistical bulletins

In 2008, The State Committee on Environmental Protection prepared a SoER[5] for 1988-2007 (during the preparation of the country profile, the report was not available at the website of the Committee). It is difficult to check whether the UNECE environmental indicators are used in the 2017 Statistical Yearbook, since they are not available online (only a short description of the publication is available and the report could be sent upon request). Climate-related data is partly available on the website of the Hydrometeorological Service.

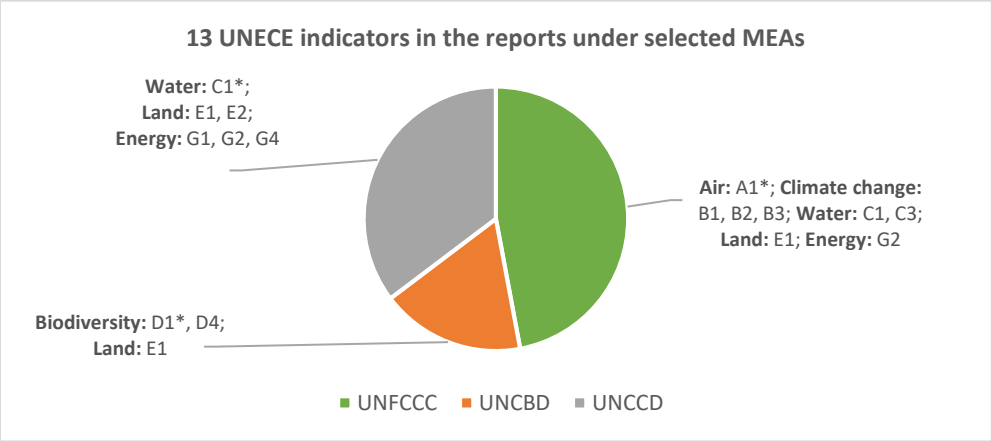


*Abbreviations as used in the Guidelines for the Application of Environmental Indicators are accessible at https://www.unece.org/env/indicators.html.

Use of environmental indicators for reporting on international obligations under the MEAs

One of the SEIS principles stipulates that environmental information and indicators should be available for use for various reporting purposes under the MEAs. The UNECE environmental indicators are used for the national implementation reports under the UNFCCC[6], UNCBD[7], and UNCCD[8], in different formats and to various extents. The indicators could also be used, to a smaller extent, for reporting under the Basel Convention[9].

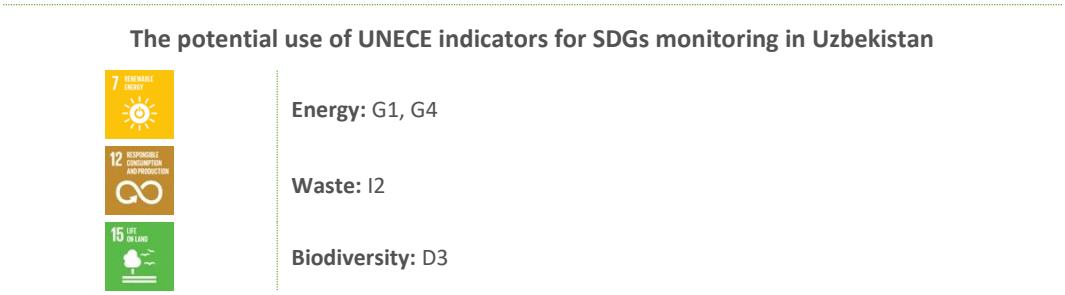
[4] Open data portal of the Republic of Uzbekistan (in Russian and Uzbek).
[5] State-of-the-environment report (2008, in Russian).
[6] Third National Communication of the Republic of Uzbekistan under the United Nations Framework Convention on Climate Change (2016, in English).
[7] Fifth National Report of the Republic of Uzbekistan to the Convention on Biological Diversity (2015, in English).
[8] National Report on implementation of the United Nations Convention to Combat Desertification in the Republic of Uzbekistan (2006, in Russian and summary in English). Indicators are mainly linked to the Aichi biodiversity targets.
[9] Uzbekistan submitted the report under the Electronic Reporting System of the Basel Convention.



*Abbreviations as used in the Guidelines for the Application of Environmental Indicators are accessible at https://www.unece.org/env/indicators.html.

Use of environmental indicators for reporting on the Sustainable Development Goals (SDGs) and Green Growth

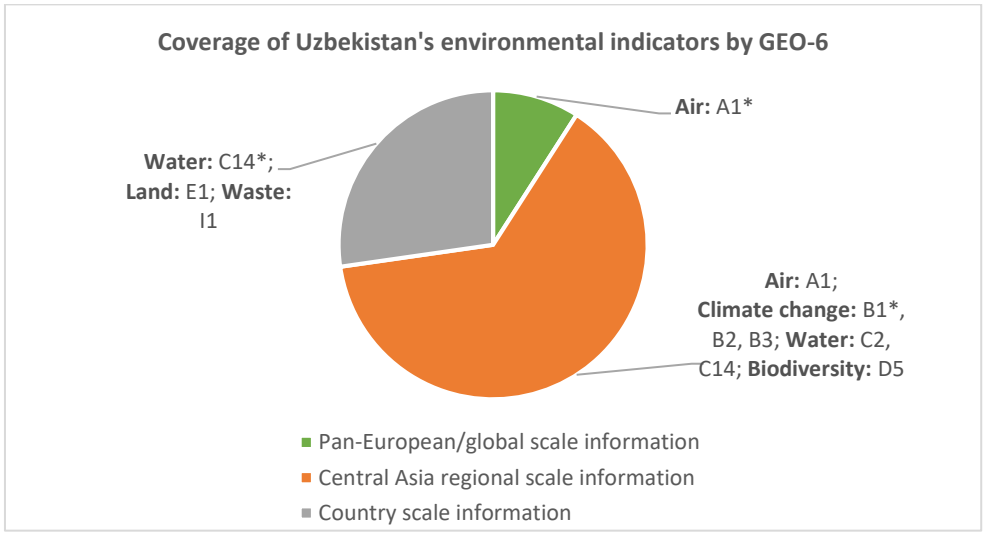
The Uzbek potential and capacity to use the UNECE environmental indicators to monitor SDGs and Green Growth indicators is not properly assessed. An assessment on the potential to monitor SGDs is presented below. Capacity to use the OECD Green Growth indicators should be further studied for the preparation of the green strategy.



*Abbreviations as used in the Guidelines for the Application of Environmental Indicators are accessible at https://www.unece.org/env/indicators.html.

Use of indicators in the Pan-European volume of GEO-6[10]

The 6th Global Environmental Outlook (GEO-6), produced in 2016 by UNEP and UNECE, covers the use of environmental indicators by Uzbekistan, in the regional context.



*Abbreviations as used in the Guidelines for the Application of Environmental Indicators are accessible at https://www.unece.org/env/indicators.html.

[10]United Nations Environment Programme. Global Environment Outlook GEO-6. Assessment for the pan-European region. 2016.

COOPERATION NATIONAL AND INTERNATIONAL SUPPORT FOR THE DEVELOPMENT OF SEIS

Cooperation and interaction on information engagement among data producers require development and improvement.

Uzbekistan participates in the work of the Commonwealth of Independent States (CIS) bodies, including the CIS Statistical Committee, the CIS Inter-parliamentary Assembly, the CIS Interstate Council for Hydrometeorology and in the relevant exchange of data and information.

Uzbekistan engages in cooperation and sectoral information exchange within the framework of the Organization for Economic Cooperation (ECO) of Central Asia and the Middle East.

At the regional level, Uzbekistan participates in the collection and processing of water information in the Aral Sea basin (SIC ICWC Tashkent and Amudarya and Syrdarya rivers basin divisions), and in the activities of the Regional Environmental Center of Central Asia. There are regional branches of some organizations, such as ICARDA, located in Tashkent.

The EU-funded project “Forest and Biodiversity Governance Including Environmental Monitoring” (FLERMONECA project) was successfully implemented in five Central Asia countries, including in Uzbekistan. The project was implemented from 2013 to 2015 and aimed at enhancing regional cooperation and partnerships with Europe in the fields of forest and biodiversity governance, including environmental monitoring through supporting the sustainable use and management of natural resources in Central Asia.

CONTENT, INFRASTRUCTURE, COOPERATION

CONCLUSIONS AND RECOMMENDATIONS

Uzbekistan has good environmental statistical reporting capacities; there are no major issues with the data for SoER production. The capacity of monitoring systems should however be improved. The majority of data is still only available in paper format, and information on oblast/local level is often unavailable. Data quality control and data validation should be set up. The effort to make data available and accessible online should be continued.

- ✓Continue advancing the production and sharing of environmental data and indicators, including including the introduction of data in electronic formats vs. paper formats;
- ✓Extend the list of produced, collected and published data;
- ✓Make all produced data and indicators available online and accessible;
- ✓Promote the use of environmental information for the production of assessments;
- ✓Maintain and enhance cooperation and interaction between environmental information producers in the country to achieve full SEIS implementation;

Uzbekistan is working on making UNECE environmental indicators accessible. These are being published on the websites of national environmental authorities, statistical agencies and open data portals, in compliance with the UNECE requirements.

There is room for improvement in order to achieve the 2021 target on UNECE indicator availability, as well as on SEIS implementation.

- ✓Continue further advancing the production and sharing of environmental indicators in compliance with recommendations of the UNECE WGEMA and the JTF on Environmental Statistics and Indicators;
- ✓Continue methodological work on existing and new environmental indicators in order for all UNECE environmental indicators to be produced, available and accessible by 2021;
- ✓Improve the quality and content of indicators according to the international standards.

Uzbekistan should study its potential to use UNECE environment indicators to monitor the progress under SDGs and Green Growth Indicators.

- ✓Assess in detail and/or promote the use of UNECE environmental indicators to monitor the SDGs and Green Growth progress;
- ✓Increase the use of indicators for different purposes and monitoring capacities of the progress on achievement of SDGs and Green Economy.

Uzbekistan does not produce indicator-based reports. Existing reports do not always provide sufficient environmental information and data. Some reports should be complemented with analysis, assessments and concrete recommendations; they should include relevant material, case studies and contain visuals. For the most part, reports are produced with international support, while national capacities require improvement.

- ✓Improve the quality of nationally produced reports and capacity of national institutions to produce data and indicators;
- ✓Improve the analytical and recommendation sections of the SoER/thematic reports, by using indicators (including a shift from the simple provision of environmental information, to a detailed environmental assessment with linkages between economic processes and the use of natural resources, including visual explanations);
- ✓Prepare the indicator-based reports in a reader-friendly manner;
- ✓Improve the capacity of organizations that work with environmental information.

One of the SEIS principles relates to the full availability of information to the public at the national level and in the relevant national language(s). Uzbekistan would benefit from the setting up of a unified portal with all environmental indicators in the national language(s), Russian and English.

✓Make sure all produced environmental information is gathered in one place and/or made available on different platforms to a broader public, in multiple languages.

The use of environmental indicators for different purposes, including reporting under the MEAs, should be promoted and strengthened. The produced reports are not always available on the website of the Committee. Some reports to the MEAs can be found on the websites of the various Conventions. Awareness of the assessment is not high, users' feedback is collected passively.

✓Increase usage of the environmental indicators for the preparation of the reports under the MEAs;

✓Improve the quality of the reports under the MEAs (analytical and visual parts);

✓Make sure all produced reports are available on nationally managed websites in the national language and accessible by a broader public;

✓Improve communication with users of environmental data and indicators, including for collection of user feedback.

Abbreviations and Acronyms:

BRS – Basel, Rotterdam and Stockholm Conventions (on waste, chemicals and POPs): Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal; Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade; Stockholm Convention on Persistent Organic Pollutants
CIS - Commonwealth of Independent States
ECO - Organization for Economic Cooperation of Central Asia
EEA – European Environment Agency
EU – European Union
ICSD - Interstate Commission on Sustainable Development for Central Asia
ICWC – Interstate Commission for Water Coordination of Central Asia
IUCN – International Union for Conservation of Nature
MEA – Multilateral Environmental Agreement
Minamata – Minamata Convention on Mercury
OECD – Organization for Economic Cooperation and Development
SoER – State-of-environment report
SEIS – Shared Environmental Information System
UNFCCC – United Nations Framework Convention on Climate Change
UNCCD – United Nations Convention to Combat Desertification
UNCBD - United Nations Convention on Biological Diversity

About the activity:

Countries of Eastern Europe, the Caucasus and Central Asia have long traditions in the fields of environmental information, assessment and reporting. At the Seventh Environment for Europe Ministerial Conference (Astana, 2011) the participating ministers decided to establish a regular process of environmental assessment and to develop SEIS across the region to keep the Pan-European environment under review. The UNECE Working Group on Environmental Monitoring and Assessment and the Joint Task Force on Environmental Statistics and Indicators created a platform for the countries to consolidate a shared vision on how to select, calculate, present and use environmental indicators to communicate the state of the environment, factors and trends. The European Environment Agency is supporting SEIS development in the EU Neighbourhood region.

This activity, funded by the Russian Federation, aims to support the actions under the Environmental Monitoring and Assessment (EMA) Programme. It also aims at strengthening national capacities in Central Asia, the Caucasus and Eastern Europe in environmental monitoring and assessment, and at enhancing the understanding by ECE member States of environmental data sharing and SEIS establishment.

Acknowledgments:

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Sources:

Reporting on Progress in Establishing SEIS in the Pan-European Region for the mid-term review and for piloting the SEIS Assessment Framework (Uzbekistan self-assessment), February 2018; SEIS Central Asia scorecard. Uzbekistan (draft, 2017); Uzbekistan SDG datasheet (Statistical Yearbook for Asia and Pacific 2017); State Committee for Ecology and Environmental Protection of the Republic of Uzbekistan, State Committee on Statistics of the Republic of Uzbekistan.