4<sup>th</sup> ENI SEIS II East Steering Committee | Tuesday, 12 November 2019 | Galina Georgieva

# **SESSION 2**

# Overview of project implementation and progress during the past year





### The project timeframe

Batumi Ministerial De " <i>have SEIS in place</i> • Roa • Vis	eclaration (June 2016) Leve by 2021" admap 2021 ion 2030 porting progress on SEIS	• EU 2050 vision		UNECE - UNEP- EEA 2020/2021 Next reporting cycle
	2017	2018	2019	
<ul> <li>NATIONAL</li> <li>Inception phase</li> <li>Country dialogues</li> <li>Establishment of national work plans</li> </ul>	<ul> <li>Anchoring the work in national setting</li> <li>NIT (mandate, objectives)</li> <li>National pilot/case</li> <li>National support</li> <li>Links to other initiatives</li> <li>Kick off CLC/land cover</li> <li>National assessment process (using results)</li> </ul>	<ul> <li>Results available</li> <li>Sharing of experiences among countries</li> <li>National achievements in regional setting</li> <li>Data quality</li> <li>Endorsement of results</li> </ul>	<ul> <li>"Evidence-based policy making"</li> <li>Assessments</li> <li>Reporting/availability of indicators</li> <li>Policy briefs</li> <li>National State of Environment reports</li> </ul>	EU Pan-European Global

# **Timeline ENI SEIS II East Project**



European Environment Agency

# 3<sup>rd</sup> Steering Committee, 13-14 November 2018

	KEY ISSUES / ACTIONS
Networking aspects:	Clear input to UNECE SEIS Assessment Framework, the mid-term review of the Batumi Ministerial Declaration and subsequent actions.
	<ul> <li>Countries engagement through regular meetings of the SEIS National Implementation Teams with active coordination role of SEIS National Assistants</li> </ul>
Focus on thematic priorities:	<ul> <li>Strong support to project activities in areas of water, biodiversity, air quality, land cover and links with open data/e-governance initiatives as umbrella</li> </ul>
	<ul> <li>Environmental assessments and online SoE reporting</li> </ul>
Visibility of results:	<ul> <li>Active distribution through a range of channels, portals and activities at national and regional level</li> </ul>
	Close dialogue with key regional partners and other projects



# Air quality activity - deliverables

- Regional workshop on AQ monitoring & reporting (19-21/9/2018, Copenhagen)
- Regional workshop on AQ monitoring & reporting (20-22/11/2019, Tbilisi)
- Country visits:
  - Azerbaijan & Georgina (12/2018)
  - o Armenia (11/2019)
  - Belarus, the Republic of Moldova & Ukraine (H1/2020)
- Development of draft country fact sheets on AQ monitoring & reporting
- Development of graphic user interphase (GUI) for RAVEN+ application



European Air Quality Index

#### 2019-11-04 05:00 UTC+1





https://www.eea.europa.eu/themes/air/air-quality-index/index

# **Biodiversity - deliverables**

- Biogeographical seminars for sufficiency assessment on proposed and candidate sites
  - Caucasus countries habitats and species (8-9/10/2017, Tbilisi)
  - Eastern countries bird species (17-18/04/2017, Kiev)
  - Eastern countries bird species (18-19/06/2019, Minsk)
  - Caucasus countries bird species (29-30/10/2019, Budapest)



# **Biodiversity – deliverables**



Country	Number of Adopted Sites	Number of Candidate Sites	Number of proposed sites	Candidate sites Total Area (ha)	Adopted sites Total Area (ha)	Total number of sites
AM		23		1033719.7		23
AZ		17		1679533		17
ВҮ	155	7		97368.27	2306470.06	162
GE	39	7	12	188587.38	851604.27	58
MD	52	9		7285	317912	61
UA	271				6266008	271
TOTAL	517	63	12	3006493.35	9741994.33	592

Support the biogeographical seminars for sufficiency assessment on proposed and candidate sites



# **Biodiversity – deliverables (***cont.***)**

- Training sessions on data harmonisation and reporting
  - Developing the indicator on Nationally desginated protected areas (D1 UNECE and SEBI 007, EEA) – 17-18/04/2018, Copenhagen
  - Reporting under Resolution No. 8(2012) of the Bern Convention (8-9/11/2018, Paris)
  - Reporting under Resolution No. 8(2012) of the Bern Convention (23/05/2019, Paris)



		D1 -I	national	ly desi	gnate	d are	eas
ppics: biodiversi		deve	loped fo	or all E	NI Eas	st cou	untri
Since 2003 designated In 2018, the	, Azerbaijan ha areas has bee e share of prote	en more than doubl	ostantial progress in determining th ed (133.8 % increase) from 1990 to d 10.31 % of the total territory of A sets out that 17 % of terrestrial an	o 2018. zerbaijan. However, much	effort is needed to mee		

# Water – deliverables

- Workshops on identifying national priorities in the area of water
- Trainings on data harmonisation, data management and indicator development



# Water area – deliverables – Data harmonisation

#### Data on ammonium from ENI Countries

monitoringSite Identifier	waterCategory	determina ndName –	determinandCode	determinand Unit 🚽	year •	seasonalPeriod	numberOfSamples	mean v	median	minimum •	maximum •	remarks •
115	LW	Ammonium	CAS_14798-03-9	mg{NH4}/L	2007	2007-12007-11	8	0.004	0.004	0.004	0.004	
124	LW	Ammonium	CAS_14798-03-9	mg{NH4}/L	2007	2007-12007-11	8	0.004	0.004	0.004	0.004	
126	LW	Ammonium	CAS_14798-03-9	mg{NH4}/L	2007	2007-12007-11	8	0.004	0.004	0.004	0.004	
130	LW	Ammonium	CAS_14798-03-9	mg{NH4}/L	2007	2007-12007-11	8	0.004	0.004	0.004	0.004	
115	LW	Ammonium	CAS_14798-03-9	mg{NH4}/L	2008	2008-32008-10	8	0.004	0.004	0.004	0.004	
124	LW	Ammonium	CAS_14798-03-9	mg{NH4}/L	2008	2008-32008-10	8	0.004	0.004	0.004	0.004	
126	LW	Ammonium	CAS_14798-03-9	mg{NH4}/L	2008	2008-32008-10	8	0.004	0.004	0.004	0.004	
130	LW	Ammonium	CAS_14798-03-9	mg{NH4}/L	2008	2008-32008-10	8	0.004	0.004	0.004	0.004	
115	LW	Ammonium	CAS_14798-03-9	mg{NH4}/L	2009	2009-32009-11	8	0.169	0.164	0.072	0.296	
124	LW	Ammonium	CAS_14798-03-9	mg{NH4}/L	2009	2009-32009-11	8	0.161	0.171	0.082	0.235	
126	LW	Ammonium	CAS_14798-03-9	mg{NH4}/L	2009	2009-32009-11	8	0.150	0.155	0.075	0.235	
130	LW	Ammonium	CAS_14798-03-9	mg{NH4}/L	2009	2009-32009-11	8	0.108	0.100	0.039	0.229	
115	LW	Ammonium	CAS_14798-03-9	mg{NH4}/L	2010	2010-22010-11	9	0.218	0.247	0.057	0.309	
124	LW	Ammonium	CAS_14798-03-9	mg{NH4}/L	2010	2010-22010-11	9	0.205	0.165	0.085	0.392	
126	LW	Ammonium	CAS_14798-03-9	mg{NH4}/L	2010	2010-22010-11	9	0.189	<i>0.192</i>	0.057	0.329	

### Data on ammonium reported by EIONET Countries

🕗 NationalSta 👻	Determinan -7	Unit_Nutrie 👻	CEN_ISO 👻	Year 👻	Aggregation -	NumberOfS -	Mean 👻	Median 👻	Minimum 👻	Maximum 👻	Remarks 👻
ITA06PN08	Ammonium	mg/I N		2009	Annual	2	0.015	0.015	0.01	0.02	
ITA06PN09	Ammonium	mg/I N		2009	Annual	2	0.0125	0.0125	0.01	0.015	
ITA06PN07	Ammonium	mg/I N		2011	Annual	4	0.06125	0.06125	0.015	0.14	
ITA06PN08	Ammonium	mg/I N		2010	Annual	2	0.02	0.02	0.01	0.03	
ITA06PN09	Ammonium	mg/I N		2010	Annual	3	0.143333	0.143333	0.01	0.41	
ITA06PN109	Ammonium	mg/I N		2011	Annual	4	0.1675	0.1675	0.12	0.24	
ITA06GO05	Ammonium	mg/I N		2009	Annual	38	0.0414474	0.0414474	0.0025	0.15	

European Environment Agency

# Water area – deliverables – Indicator development

C2 – Freshwater abstraction in the Republic of Belarus Oct 31, 2019

Belarus is a non-water-stressed country, with an annual water exploitation index of around 2 % in 2017.

As a result of improvements in water-saving measures and the decoupling of water abstraction by economic sectors from economic development, water abstraction was almost halved (reduced by 48 %) from 1990 to 2017. In 2017, annual total freshwater abstraction in Belarus was around 1 400 million m<sup>3</sup>, corresponding to 147.2 m<sup>3</sup> of annual water abstraction per capita.

The pressure from water abstraction is comparatively much higher on groundwater, which meets 58 % of total water abstraction in the country (2017).

Total water abstraction from groundwater (812 million m<sup>3</sup> in 2017) still remains higher than the national target of 750 million m<sup>3</sup> for annual water abstraction from groundwater by 2025.

#### Read more



### C2 – Freshwater abstraction in the Republic of Moldova

Oct 31, 2019

Moldova is highly dependent on surface water resources. Around 85 % of water abstraction is met from surface waters, particularly from the Dniester and Prut rivers. Water abstraction had substantially decreased (75 %) during the transition period from 1990 to 2000. Since then annual water abstraction has shown a steady trend, with an annual average of 725 million m<sup>3</sup>.

However, data uncertainty, particularly in self-abstraction (groundwater and surface water), is very high, and improving it will require strengthening the monitoring programme and metering water supply and use.

The country is experiencing slightly higher water stress conditions (the annual average water exploitation index (WEI) is around 13 %) compared with its neighbouring countries.

Around 30 national experts have been actively involved in developing the water indicators.

35 of water indicators adressing to water quantity and quality issues have been developed and published.

https://eni-

seis.eionet.europa.eu/east/indicators/indicatorssearch/#b\_start=0&c7=C2



# Water area – deliverables – Information systems



EEA provides financial, technical and content supports to the three Caucasus countries

GEO ENG

TOPICS DATA MENU 4 MENU 5

Ecoportals in Armenia & Azerbaijan under progress



# Marine area – deliverables (Black Sea)

- Following the activities of the Commission on the Protection of the Black Sea Against Pollution – Bucharest Convention (1992)
- On-going communication with the EMBLAS+ project for sharing the data with the EEA Marine Litter Watch data viewer



The Marine LitterWatch (MLW) data viewer provides a map of beach litter data collection events organised by MLW communities. It also provides overview graphs and tables of both the data collected and community engagement

# **Corine Land Cover (CLC) - deliverables**

### **Project outputs:**

- Country visits with CLC trainings
- Technical support national pilots



#### Pan-European

The pan-European component provides information about the land cover and land use (LC/LU), land cover and land use changes and land cover characteristics. The latter includes information about imperviousness, forests, natural grasslands, wetlands, and permanent water bodies. Read more





European Topic Centre on Urban, Land and Soil Systems









# **Environmental assessments activities**



### **Environmental indicators available and accessible online**

### Indicator = methodology + story (assessment) + visualisation

UNECE Environmental Indicator	Armenia	Azerbaijan	Belarus	Georgia	Moldova	Ukraine	
A. Air pollution and ozone depletion							1. <u>A template of</u>
B. Climate change							environmental
C. Water							<u>indicator;</u> 2. <u>Guidance on a</u>
D. Biodiversity							Catalogue of
E. Land and soil							Environmental
F. Agriculture							Indicators for the six
G. Energy							<u>EaP;</u>
H. Transport							3. <u>Analysis of the</u>
I. Waste							availability and accessibility of
J. Environmental financing							environmental
Total							indicators





### **Environmental assessment reports available and accessible online**

Type of report	Armenia	Azerbaijan	Belarus	Georgia	Moldova	Ukraine
National environmental reports	Yes / Last 2007- 2011	Yes / Last 2008- 2012	Yes / Annual	Yes / Last 2010- 2013	Yes / Last 2007- 2010	Yes / Annual
Specialized reports - climate (national communications to UNFCCC)	Yes	Yes	Yes	Yes	Yes	Yes
Specialized reports - air	Yes	Yes	Yes	Yes	Yes	Yes
Specialized reports - water	No	Yes	Yes	Yes	Yes	Yes
Specialized reports - biodiversity	Yes	Yes	Yes	Yes	Yes	Yes
Specialized reports - waste	No	Yes	No	No	No	No
Indicator-based reports	Yes	Yes	Yes	No	Yes	No
National Statistical Yearbook on environment	Yes	Yes	Yes	Yes	Yes	Yes
National Statistical Yearbook	Yes	Yes	Yes	Yes	Yes	Yes
Report on sustainable development	Yes	Yes	Yes	Yes	No	Yes

Key challenges:

- Establish mechanism to enforce publication of environmental information;
- Timely availability of environmental reports, indicators and data;
- Make environmental information available faster;
- Availability of time series for environmental data and indicators;
- Establish national indicators





### National SoE reports in the EU and East





### Integrated Environmental Assessments & EEAcademy ENI Summer Schools 2018/2019

At the regional level, a new training programme designed, developed and offered by the EEAcademy



28-30 August 2018, Copenhagen, EEA

> 27-29 August 2019, **Copenhagen**, **EEA**



**EEA**cademy European Environment Agency

2019 ENI SS focused on SOER & SDGs reporting to: -measure transition to SD -develop tools and methods -construct new indicators -use COPERNICUS -integrate emerging issuesplastic



sessment Agenc

FLANDERS State of the Art ENVIRONMENT AGENCY





Sapienza University of Rome

### Reporting on state of environment (data, indicators, reports) by the EEA and Slovak Environment Agency/Eionet, 2017-2020



Methodological guidance on State of Environment Report

COUNTRY briefing on State of the environment report (6)

SOER 2020 (structure, process, drafts)

Drafts of 3 Environmental Indicators (6 countries)

Regional workshops (in 2017& 2019, 36 experts)

2018/2019 SOER trainings with hands-on data ( in 6 countries-179 experts)







### Vocational trainings on Environmental accounting at CIRAD, France, Sept 2019



18 experts from environmental and statistical authorities trained on SEEA land with national data sets from Copernicus,...

#### Production land cover and land cover change accounts, 2015 -2000, EEA LEAC/ SEEA approach







een Background Landscape Index (GBLI) 2015 Armenia,





GBLI 2000, Moldov





Analysis of stress factors that caused of urban sprawl (SDG Indicator 11.3.1), agriculture extension (SDG Indicator 2.4.1.), deforestation (SDG Indicator 15.1.1., SDG Indicator 15.1.2.) and land uptake and production of various thematic maps derived from land cover accounts.



European Environment Agency

## **Open Data and e-Government for Environment**

### Objective

"...develop a **Roadmap** and identify feasible and practical means for integrating environmental information in national e-governance/Open Data processes and platforms"

### Activities

- 2 Regional meetings (March and October 2019)
- 6 National roundtables (May-September 2019)
- Aligned with current initiatives in EU:
  - ✓ Open Data Maturity in Europe
  - ✓ Streamlining environmental reporting
  - EU EIS project (Action 5): Promote best practices for European and national Environmental Information Systems
- Linked with the activities overseen by the <u>UNECE Aarhus Convention</u> and <u>Protocol on</u> <u>Pollutant Release and Transfer Registers</u>
- Close cooperation and dialogue with Aarhus Convention Secretariat in UNECE



### **Open Data and e-Government for Environment - deliverables**

- (Draft) 6 Country Maturity Reports on sharing and dissemination of environmental information (still open for comments)
  - **Challenges** related to E-government and Open Data initiatives and environmental information management/sharing
  - National Roadmap
- (Draft) Open data and e-government good practices for fostering
   environmental information sharing and dissemination (still open for comments)



### In summary

- **Outcomes** of the "Open Data for Environment" project:
  - **Relevant** to any environment or related domain
  - **Replicable** to any other country/region
  - Setup a model for the future initiatives
  - Feed into the current projects implemented at national/regional levels
- Input to:
  - Improving access to environmental information
  - Aarhus Convention implementation
  - Task Force on Access to Information future work plan
  - Current consultation process on "*Recommendations on the more effective use of Electronic* Information Tools to provide public access to Environmental Information"
- Practical activity to feed into the legal/organisational/technical implementation of the Access to Information pillar of the Aarhus Convention at national level
- Continue the regular institutional dialogue at national level
- Set up a regular monitoring process to assess progress on SEIS implementation



	4 November 2019   A first set of water indicators from six Eastern Partnership countries now available
	30 October 2019   Moldova: national implementation team dicussed state of enivonment reports and environmental indicators
NEWS	29-30 October 2019   Regional biogeographical Emerald network seminar
	8-9 October 2019   Second regional workshop on state of environment report
	3-4 October 2019   Sixth Task Force meeting of the parties to the Aarhus Convention
	2 October 2019   Joint UNECE-EEA Workshop on Open Data for the Environment
	26 September 2019   Ukraine: Roundtable on open data and e-government for the environment
Check out our latest Project Newsletter!	18 September 2019   Public consultation for the new framework on Eastern Partnership
Read more	17-19 September 2019   Ukraine: Second CORINE Land Cover training

NEWS

# **Project web site**



Georgia is water abundant country with around 53 000 million mS of annual revewable freshwater resumes available. This consequents to 44 000 mS of water available annually per capits for the use of evideomic setup. and in waterballs, fload water

European Environment Agency 义



#### Environmental accounting

One of the conclusions of the 1st regional project Steering Committee of the ENI SEIS East II meeting held in November 2016 is that the project should support capacity building in Environmental Accounting, all countries having identified this to be highly relevant and of priority. This need for the action has been taken into account and been added to the Regional work plan of the project 2017-2020.

The EEA Study of the effectiveness and relevance for policymaking and public information of recent environmental assessments in the ENI East region was conducted in 2017. This study identify way forward for environmental assessment reports using new methods and tools for environmental assessments. This includes environmental accounting, environmental modelling, GIS applications and scenarios analysis and forecasting. This is way forward to more analytical, dynamic, timely and knowledge based assessments.

In 2017, the EEA self-assessment on SEEA progress study was conducted to analyse the state of play and structuring capacity building. This assist to measure the readiness of countries (data availability, institutional and human capacity,) and identify area of work to start (see concept note on the environmental accounting for further detail). Key findings indicated that the SEEA is an emerging component, which is included in national statistical programmes led by NSOs. Priority areas for the SEEA include land accounts, air emission accounts, water accounts and environmental protection expenditure accounts.

#### KNOWLEDGE RESOURCES

SEEA Central Framework, UN SD, 2012

Bystem of Environmental-Economic Accounting 2012: Experimental Ecosystem Accounting - final, official publication, 2014

Land Cover Accounts (LEAC) Methodology, EEA

Land accounts for Europe 1990-2000, EEA

COSYSTEM NATURAL CAPITAL ACCOUNTS: A Quick Start Package

SCOPING STUDYON ENVIRONMENTAL-ECONOMIC ACCOUNTING TOWARDS THE PRODUCTION OF AN INTEGRATED INFORMATION SYSTEM AND INDICATORS FOR THE THREE RIO CONVENTIONS, UN CBD, 2016

# **Project's Newsletters**

#### ENI SEIS II Fast This project is funded by the European Union European Environment Age Issue 2019/5, Winter 2019 Implementation of the principles and practices of the Shared Environmental Information System (SEIS) in the Eastern Partnership countries Regional View | Country Perspectives | Upcoming Events

#### Regional View

#### Project governance: Third steering committee meeting

Tbilisi, 13-14 November 2018

The steering committee reviewed the results of the project in 2018 and set priorities for 2019. This third meeting was hosted by the Ministry of Environmental Protection and Agriculture of Georgia, and the National Statistics Office of Georgia. Read more

#### Regional workshop on air guality monitoring and reporting

#### Copenhagen, 19-21 September 2018

This workshop evaluated the air quality monitoring and reporting status in the Eastern Partnership countries and shared examples from the EEA and Eionet (the European Information and Observation Network) and the EU policy context and discussed plans in the Eastern Partnership countries.

The workshop is a part of a new project activity that aims to increase the use and public accessibility of air quality measurement data in the Eastern Partnership countries, and it was attended by 25 experts from the region and the EEA.

#### Special session on environmental information during the OECD **GREEN Action Task Force**

#### Bratislava, 22 October 2018

The special session on environmental information focused on the importance of reliable and comparable data for improving the state of environment across the region for the benefit of policy-makers and the public. It was attended by approximately 50 representatives of the EU Member States, the Eastern Partnership and Central Asian countries, OECD (Organisation for Economic Cooperation and Development), UNECE, UNIDO (United Nations Industrial Development Organization) and the European Commission (DG



© Riku Männistö, My City /EEA

© Ministry of Environmental Protection and Agriculture of

Georgia



#### Kyiv, 5-6 March 2019

The regional seminar kicked off discussions to find practical ways of integrating environmental information in national e-governance/open data frameworks and platforms, in particular the accessibility and role of these in sharing information and providing additional environmental, social and economic benefits.

#### Read more

EEA contributes to the joint OECD/UNECE Seminar on System of Environmental Economic Accounting

The fourth seminar served as a knowledge and experience sharing platform on the system of environmental and economic accounting (SEEA). Participation of the Eastern Partnership countries was covered by the ENI SEIS II project.















Sharing Environmental Information Effectively Copenhagen, September 2019

# THANK YOU !

# For more information: https://eni-seis.eionet.europa.eu/east

