

# **Economic Commission for Europe**

## **Committee on Environmental Policy**

### **Eighteenth session**

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Items 4 and 6 of the provisional agenda

### **Follow-up to the Astana Ministerial Conference and preparation of the “Environment for Europe” mid-term review**

#### **Environmental monitoring, assessment and reporting**

30 March 2012

## **Draft outline on the establishment of a regular assessment and reporting process underpinned by the gradual development of a Shared Environment Information System**

note by the European Environment Agency

### **Summary**

The current paper is a response to the request addressed to European Environment Agency (EEA) by the ministers of environment in the context of Astana Ministerial Declaration to develop an outline for the establishment of a regular process of environmental assessment and for the gradual development of Shared Environment Information System (SEIS) across the pan-European region.

In preparing this paper a number of key policy and legal documents across the region, as well as relevant reports and articles have been consulted to ensure that the outline is embedded in existing and evolving related frameworks and developments.

As a first step in the development of the outline for establishing the regular process, the paper addresses the following elements:

- **Background**
- **Part I – “The Astana mandate”**
- **Part II – “The current status”**
- **Part III – “Next steps”**
- **Managing the process**

In addition, **Annex 2** provides an overview of SEIS implementation activities in which EEA/EIONET are currently involved with potential relevance for the pan-European region, supplemented with a first list of other relevant project-based SEIS activities as a start to be completed by countries, international organization, NGOs and the business community.

**Background** – aims to place the Astana Ministerial request in the global framework of facilitating public access to information and increasing the use of relevant and reliable information in the whole policy chain, from development to implementation.

**Part I – “The Astana mandate”** – is a comparative analysis of the Astana mandate against the present assessment and reporting landscape across the pan-European region by highlighting both the novelties as well as the elements of continuity to be addressed in this process. The analysis recognises that a legal framework for regular assessment is already in place<sup>1</sup>, that tools and methods for reporting and assessment are being used across the region and that SEIS elements start being applied in support to various reporting processes. There is however a clear need to coordinate and streamline these efforts and to orient them towards clear and achievable goals.

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<sup>1</sup> Aarhus convention for UNECE region, Directive 2003/4/EC on public access to environmental information

**Part II – “The current status”** – is a brief overview of the main findings gathered through the Assessment of Assessments (AoA) process (pan-European complemented by its sub-regional components) concerning the current reporting practices across the region, the main shortages/gaps in terms of policy demand versus content focus, networks involved, tools and methodologies applied and supporting information available.

**Part III – “Next steps”** – identifies possible alternatives to support countries in a step-wise development of SEIS in the region. Two time perspectives are considered, namely:

- a short-term perspective: 2012 -2013; and,
- a medium/long term perspective: 2014-2020

For both time intervals the activities foreseen are structured according to the three SEIS components: governance/cooperation, content and infrastructure.

The immediate actions needed are rather straightforward. EEA actions and involvement are listed. Others have yet to be fully identified including possible synergies and interlinkages<sup>2</sup> between existing relevant initiatives to enhance their effectiveness. Once confirmed these actions will represent a list of clear short term commitments of those involved to implement SEIS across the region<sup>3</sup>.

For the medium/long term perspective the picture of foreseeable activities is still a work in progress and it will be gradually developed throughout 2012. All International and regional partners assisting the implementation of the Astana mandate need to contribute by refining their medium and long term plans and strategies to accommodate the current demand.

**Managing the process** – A management mechanism to monitor the implementation of the Astana mandate, steer the process and coordinate the different developments is proposed. The model used for the AoA process might be considered, where countries are fully involved alongside EEA, UN/Economic Commission for Europe (UNECE) and other international organisations. The annual meeting of the parties to the Aarhus convention could offer the legal platform for assessing progress and coordinating actions towards implementing the requirements of the Astana Declaration. In this context the Secretariat of the Aarhus convention could be assigned to service the Astana follow up activities. At the sub-regional level, evaluation of progress can be made within the framework of existing programmes and initiatives (e.g. EU water initiative, UNECE Environmental Performance Review 3<sup>rd</sup> cycle, OECD Environmental Action Programme Task Force, ENPI/SEIS project<sup>4</sup>, etc.) feeding into the annual meeting. The regionally based institutional partners (Regional Environmental Centers/ RECs, United Nations Development Programme/ UNDP country offices etc.) could assist and support the effective implementation of the agreed actions at the national and regional level.

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## Background

In 1992, at the World Summit on Environment and Development the world leaders concluded that environmental issues are of common interest and consequently best handled with the participation of all concerned citizens at the relevant level. In this context an open invitation to countries and information holders was launched, to find appropriate ways and practical means to facilitate the public access to environmental information as a practical tool for informed action. This invitation was captured in the Principle 10 of the Rio Declaration<sup>5</sup>. Twenty years later, also in

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<sup>2</sup> See also the same approach pursued by UNEP for strengthening the international environmental governance (UNEP/GCSS.XII/13/Add.2)

<sup>3</sup> See UNEP paper – para 20

<sup>4</sup> European Neighbourhood Partnership Instrument/Shared Environment Information System is a EU project implemented by EEA for the period 2010-2014. The aim is to assist the EU neighbour countries in East and South in the gradual development of SEIS as support to the implementation of various environmental policies.

<sup>5</sup> “Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities. In their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to

Rio, it is an opportunity to take stock of the progress achieved and share experience on how countries and regions are developing innovative ways to implement this principle.

For the pan-European region the translation into practice of the Principle 10 of the Rio Declaration materialised in the adoption of the Aarhus Convention. Worldwide, the 1998 UNECE convention on access to information, public participation in decision-making and access to justice is the first (and still the only) legally binding instrument transposing the provisions of art.10. And by January 2012, 45 countries<sup>6</sup> from Western Europe to Central Asia, that is to say 85% of the pan-European region, are gradually implementing its provisions. Moreover the convention is open also to non-UNECE countries if deciding to share its principles, opening the ways for promoting its valuable principles beyond the initial borders. The European Union re-modeled its legislation in the field and adopted a new Directive on access to environmental information based on the Aarhus provisions<sup>7</sup>.

In more than ten years of implementation<sup>8</sup> the most successful pillar of the Aarhus convention translated into actions across the UNECE region is access to environmental information.

As an important tool for communicating and disseminating environmental information, the state of the environment report is specifically addressed by the Aarhus provisions<sup>9</sup>. The parties are requested *“at regular intervals not exceeding three or four years, to publish and disseminate a national report on the state of the environment”*. From the content perspective, the reports need to contain, among others, *“information on the quality of the environment and information on pressures on the environment”*.

Building on these provisions, the 2003 Directive of EU on access to environmental information stipulates further that *“... Member States shall take the necessary measures to ensure that national, and, where appropriate, regional or local reports on the state of the environment are published at regular intervals not exceeding four years; such reports shall include information on the quality of, and pressures on, the environment”*<sup>10</sup>.

The EE-AoA recently published by EEA was assessing the current environmental reporting and assessment status across the UNECE region and concluded that all countries have developed websites containing relevant environmental information and have produced, in the last five years, at least once a state of environmental report. This is to say that even countries not yet party to the Aarhus convention are producing state of environment reports and, more broadly, making steps towards ensuring the public access to environmental information<sup>11</sup>.

The aim of this document is to prepare a response to the requests in the Astana declaration taking into account EEA's ongoing existing and planned activities for SEIS and regular assessments. The idea is to develop a clear vision and integrated approach for EEA and pan-European activities, which can act as a basis to identify and join together in a coherent manner contributions from various partners, countries and international/regional bodies.

## Part I - The Astana mandate

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judicial and administrative proceedings, including redress and remedy, shall be provided” (Rio Declaration on Environment and Development, 3-14 June 1992).

<sup>6</sup> [http://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg\\_no=XXVII-13&chapter=27&lang=en#1](http://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-13&chapter=27&lang=en#1)

<sup>7</sup> Directive 2003/4/EC on public access to environmental information

<sup>8</sup> The convention has entered into force in 2001

<sup>9</sup> Art.5.4.4. “Each Party shall, at regular intervals not exceeding three or four years, publish and disseminate a national report on the state of the environment, including information on the quality of the environment and information on pressures on the environment”.

<sup>10</sup> Art.7.3 of the Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information, see: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32003L0004:EN:HTML>

<sup>11</sup> It is the case for example of Belarus and Russian Federation (in process of ratifying Aarhus convention) who produced in 2010 their latest SoER, see: <http://aoa.ew.eea.europa.eu/>

While first taking note of the progress achieved in the region in the provision of environmental information and reporting on the state of the environment and also on the existing gaps and shortcomings, the Astana Ministerial Declaration<sup>12</sup> of 23 September 2011, decided:

**....14. "To keep the pan-European environment under review, we decide to establish a regular process of environmental assessment and to develop the SEIS across the region.**

The Declaration also indicates in brief some possible ways to achieve this objective by strengthening the role of the countries through capacity building (training, exchange of experience and good practices, networking, etc.) along the entire monitoring-to-reporting chain.

The geographical focus of future cooperation is also reflected in the Declaration by highlighting sub-regions in need of particular attention and support, building on the findings of the EEA's recently published 'Europe's Environment An Assessment of Assessments' - EE-AoA (complemented by the regional AoAs for Eastern Europe, Caucasus, Central Asia and Russian Federation).

The Astana declaration goes onto say:

**... "these will serve multiple policy processes, including Multilateral Environment Agreements, and include capacity-building of countries in Eastern Europe, the Caucasus, Central Asia and South-Eastern Europe to monitor and assess their environment."...**

The Declaration refers to a large spectrum of policy processes and legal instruments<sup>13</sup> which need to be served by a regular process of environmental assessments and supported by a Shared Environmental Information System.

To properly steer the process and develop a realistic road map for implementation, the Ministers invited the **"EEA and its partners to develop an outline for how these actions could be performed and to present it to the ECE Committee on Environmental Policy..."**<sup>14</sup>

The following section highlights what is new in the mandate compared with the current data-to-reporting activities in the pan-European region in order to put in place a regular assessment process and to develop SEIS across the region.

#### **a) A regular process of environment assessment**

At the pan-European and EU levels the frequency of the environmental reporting process is already regulated by both Aarhus convention and the EU Directive on access to information, indicating that a comprehensive state of the environment report has to be produced every four years. In practical terms the situation varies amongst countries and sub-regions and is influenced by national policy demands, legislation or financial considerations. Consequently the scope of the current mandate is to assist the countries in the **gradual stabilisation of the national environmental reporting process to a four year cycle.**

The content of the "regular reporting" is also foreseen to be addressed and improved in this process so as to become more relevant to the policy process and to the public at large. This evolution is indicated by the "assessment" perspective introduced by the Declaration the quality of the environment and the pressures on the environment<sup>15</sup>, comparatively with a descriptive approach identified in the current environmental-related reports.

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<sup>12</sup> Astana Ministerial Declaration 23 September 2011, at:

<http://www.unece.org/fileadmin/DAM/env/documents/2011/ece/ece.astana.conf.2011.2.add.1.e.pdf>

<sup>13</sup> National Strategies and action plans, national legislation, compliance with multilateral agreements, reporting to EEA, UN etc.

<sup>14</sup> Astana Ministerial Declaration 23 September 2011, at:

<http://www.unece.org/fileadmin/DAM/env/documents/2011/ece/ece.astana.conf.2011.2.add.1.e.pdf>

<sup>15</sup> As defined by the Aarhus convention

One approach being adopted by the EEA/Eionet to help embed the Astana mandate into EU activities is to consider the following three objectives:

- Support to the implementation of EU legislation (covering the EU Member States, other EEA member countries, EU candidates, possibly ENP countries)<sup>16</sup>
- Support to the enforcement of key environmental international agreements (covering the EEA countries and other countries in the pan-European region party to conventions)
- Raise public awareness to increase transparency and facilitate public participation (EEA members and cooperating countries, Aarhus conventions parties, others).

These might help countries in other regions organise their responses to the Astana requests.

## **b) The development of Shared Environmental Information System**

An overview of what exists in terms of environmental (or related) data and information across the pan-European region is not available. The AoA methodology, applied to marine<sup>17</sup> and water related issues as well as to the green economy topic, provided glimpses on who, where and what is available in these areas over the recent years, as a potential to re-use, share and build upon.

The production of regular reports is a complex process, involving networks, data and information, tools and methodologies and expert support. With SEIS in the Astana Declaration, this opens up the possibility to improve the organisation of available information, to facilitate their access and re-use and in the end provide a stable platform for the future assessment and reporting activities. Within the same objective it is also intended to identify the data and information gaps or incompatibilities, the accessibility restrictions (confidentiality, formats etc.) and suggest possible ways for addressing and overcoming these issues.

## **Part II. The current status**

The EE-AoA process carried out at both pan-European and sub-regional levels provided relevant information on: a) the current environmental reporting landscape; as well as b) on the manner and ways (networks, tools, information systems) by which these reporting activities are organised and implemented. A summary of the current status is extracted from the EE-AoA reports and other recent materials and presented below<sup>18</sup>:

### **a) CONTENT**

The analyses of SoE and thematic assessments has revealed a multitude and variety of products and information. At the same time, much information is lacking and the policy relevance of the information remains weak.

Assessments are currently too restricted to environmental status and trends. The most common assessments are thematic (75%) or status and trends (71%), and very few take a more integrated approach, encompassing a range of concepts or the whole of the DPSIR framework.

In existing assessments, ex-post analysis is preferred to ex-ante or forward-looking analysis. Reliance on long time-series is limited. Forward-looking analyses are included in approximately 20% of the assessments reports.

In Central Asian countries, assessments of the state of environment, policy formulation, fulfilment of reporting obligations under multilateral environmental agreements (MEAs) and capacity developments have been significantly supported and assisted mainly

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<sup>16</sup> Subject to additional funding

<sup>17</sup> See: <http://www.unqa-regular-process.org/> and <http://www.eea.europa.eu/publications/europes-environment-aoa>

<sup>18</sup> The information provided is extracted from the EE-AoA report, 2011 and from the AoA sub-regional reports for eastern Europe, Caucasus, Central Asia and Russian Federation, 2011.

through the UN organizations and programmes and Official Development Aid<sup>19</sup>. Consequently the sustainability of the assessment process is not ensured.

Western Balkans and EEA member countries have the highest number of reports based on regular reporting cycles (approx. 70%).

#### b) INFRASTRUCTURE AND SERVICES

Assessments are very poorly supported by infrastructure and services across pan-Europe and only in 22 per cent of the reviewed assessments was there an indication that any information system supporting the data management for access and sharing was established while preparing the assessment. Central Asia and Eastern Europe are lagging behind in the use of service providers and common platforms supporting data management, sharing and exchange.

Eastern Europe, Caucasus and Russian Federation countries have the basic hardware and software available, but more advanced equipment (for data transfer via Internet), clear data policies and special software (databases, Geographic Information System (GIS), Spatial Data Infrastructure (SDI), internationally recognized models for data treatment and interpretation) are often missing.

In Central Asia data storage and management are still a major issue. Environmental data are not always stored using electronic media, databases being incomplete and generally inaccessible; integrated environmental monitoring, databases and information systems do not exist.<sup>20</sup>

The internet is the most used interface across the pan-European region to make available the assessments. Nevertheless, the production of hard copies is still significant with Russian Federation and Caucasus showing the highest shares of dissemination of their assessments as hardcopy.

#### c) NETWORKING

Institutional arrangements are unclear, with a wide range of organisations and ministries involved in the preparation but with limited coordination either between or within regions and countries, or between the public and private sectors. An assessment undertaken as a contribution to the 2011 Astana Ministerial Conference shows that only 28 per cent of the reports analysed are produced in coordination with different assessment processes. With the exception of the Russian Federation and, to a lesser extent, of Central Asia, not even one-third of the assessments produced in the other sub-regions are coordinated with other processes.

In the late 1990ies an initial capacity building activity was carried out by countries in Eastern Europe, Caucasus and Central Asia together with EEA and the UNECE Working Group on Environment Monitoring and Assessment. The initiative conducted under the TACIS programme helped assess the availability of environmental data and information, collect them into a database and establish a prototype reporting system initially developed by EEA and customised and implemented by UNECE. Since then, complementary, voluntary international developments like GEO/GEOSS<sup>21</sup> have increased networking and availability of selected data. Being a very recent development, the Global Network of Networks (GNON) activity (a special initiative established at the Eye On Earth summit 2011) is a further way to improve networking. It is also meant to provide support to the implementation of the UNEP Live, providing better linking, access and use of environmental data and information globally following principles promoted through SEIS.

### Part III. The next steps

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<sup>19</sup> AoA Central Asia, CAREC, 2011

<sup>20</sup> AoA Central Asia, CAREC (2011)

<sup>21</sup> The intergovernmental Group on Earth Observations (GEO) is leading a worldwide effort to build a Global Earth Observation System of Systems (GEOSS) over the next 10 years

Across the pan-European region the implementation of SEIS and its principles is already taking place. With different speeds, in various ways and gradually engaging different target groups, the exchange of environmental information, their re-use and dissemination is growing. The central role in the development of a regular assessment process based on SEIS belongs to the countries themselves. The ownership of the process by each participating country is a basic requirement for a successful step-wise implementation. Furthermore, to ensure the sustainability of the actions proposed, the assessment work needs to be driven by countries' own policy needs and gradually be able to respond to and guide their effective and efficient implementation. Therefore most of the focus in terms of future actions should be oriented towards the countries, with the international and regional partners supporting this process facilitating the cooperation and the exchange of knowledge between countries and adding additional environmental dimensions (regional, global) to the national perspectives. The AoA consultation paper "Europe's Environment: Enhancing the Knowledge Base"<sup>22</sup> provides an assessment of the nature of the current environmental challenges and the data and information base needed to address them which have implications for the content and the approach to be taken by the regular assessment process and SEIS at all levels.

### **Expected outcomes (short-term)**

In the short term perspective the outcomes of the implementation of the Astana Declaration will be: a) **production of the next national SoERs based on SEIS elements; and b) improved reporting of obligations under MEAs using SEIS elements.** In reaching these goals the following activities are proposed:

1. Identifying data and information available, facilitate access and sharing, support to building regular priority data sharing (formally "data flows") (countries assisted by EEA and its partners<sup>23</sup>)
2. Creating or facilitating institutional partnerships at national level to respond to such obligations (e.g. government decision, Prime Ministerial order, joint governmental bodies etc.)
3. Supporting the development of common/shared platforms for dialogue and information sharing (e-governance, Reportnet<sup>24</sup>, InfoMEA<sup>25</sup>, Caspian Environment Information Center<sup>26</sup>, etc.)
4. Assistance and capacity building in the use of assessment tools and methodologies (indicators, Integrated Environment Assessment/IEA, scenarios and forward looking studies, etc.)<sup>27</sup>
5. Developing through partnership with existing projects and initiatives building blocks for State of Environmental Reporting (SoER)<sup>28</sup> and for reporting to MEAs, assisting in the preparation of new SEIS compliant project proposals and filling the monitoring to reporting gaps identified in the EE-AoA process (EEA and other partners including at the regional level).

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<sup>22</sup> The AoA consultation paper "Europe's Environment: Enhancing the Knowledge Base" can be found at the AoA portal as follows: [http://aoa.ew.eea.europa.eu/europe-s-environment-an-assessment-of-assessments/europe-s-environment-an-assessment-of-assessments/index\\_html](http://aoa.ew.eea.europa.eu/europe-s-environment-an-assessment-of-assessments/europe-s-environment-an-assessment-of-assessments/index_html)

<sup>23</sup> The international organisations, MEAs secretariats etc. are invited to enlist in specific type of support based on competence and specific expertise.

<sup>24</sup> Reportnet is the system used by EEA/EIONET for electronic reporting according to SEIS principles

<sup>25</sup> UN information portal on multilateral agreements, see: <http://informea.org/>

<sup>26</sup> Serving the Teheran convention on the Caspian sea- project currently implemented by UNEP/Grid Arendal with EEA support

<sup>27</sup> Activities such as workshops, seminars, trainings currently covering these areas are organised by EEA jointly with UNECE, DG Eurostat, OSCE

<sup>28</sup> The current AWARE project funded by EU in Central Asia is promoting SEIS in the region and is assisting countries in the region in the preparation of the next SoER. Similar activities are carried out for EU neighbours under the ENP/SEIS project managed by EEA

The implementation of these activities will imply bringing together and connecting all existing and planned initiatives across the region. Below, EEA highlights some concrete actions currently taken in support of the overall Astana goal. Furthermore a comprehensive list of SEIS related activities currently underway at various levels is presented in Annex 2. The list is not exhaustive and all stakeholders, namely countries, international organisations, non-governmental organisations and the business community are invited to contribute.

#### **A. Short-term actions**

- Review of the EEA core set of indicators (CSI) underway, covering EEA member and cooperating countries, with proposed adjustments aiming at having a positive impact on the next state of environment reporting process.
- Current activities on data and indicators, carried out in East Europe, Caucasus, Russian Federation and Central Asia by the environmental and statistics networks, coordinated by UNECE and EEA, aiming towards the production of an agreed core set of environmental indicators underpinned by regular data flows in support to regular reporting at national and regional levels.
- The Europe's Environment AoA portal and the State of Environment Reporting Information System (SERIES) managed by EEA to be further streamlined and developed to allow it to continue to gather relevant environmental assessments across the pan-European region.
- The annual indicator based assessment of EEA (in 2012 addressing the complex and cross-cutting issue of green economy) is a possible, concrete model and support to be provided to the countries in view of establishing a regular assessment process.
- As a thematic focus, the EU water initiative can support the implementation of UNECE agreements related to water, the use of common indicators and reporting tools at national and basin levels using the EU available tools, methodology and reporting systems.
- The Water Information System for Europe (WISE) can assess sustainability and vulnerability of water resources and help develop information on policy responses. Capacity building attached to the use of the system can be provided within the existing ENP/SEIS project.
- Reportnet to be gradually made available for use to countries beyond EEA (e.g. ENP, Central Asia). The system is continuously enhanced through new technical approaches (e.g. semantic web technologies) in order to cover new legal demands around reporting obligations.
- The SEIS cookbook – an activity launched under ENP/SEIS project but extended also to all EEA and cooperating countries, will, starting from 2012, lead to the development of a living collection of SEIS good examples and best practices. EEA global public environment information platform “Eye on Earth” is already available for use to other communities beyond EU.

#### **B. Long term perspective**

In the context of Europe 2020 strategy EEA and Eurostat will join its networks and information holders to provide statistical information and indicators that allow sustainability to be measured and reported. Above will be focussed around the long term priorities to be addressed by EU and is reflected in the current activity plan and expected to be further detailed in the context of the EU 7<sup>th</sup> Environmental Action Programme (7EAP), as follows:

- assessing implementation of existing instruments and ensuring ways for better implementation
- moving towards a greener and more resource efficient economy
- better integration of environmental concerns into sectoral policies in view of promoting Sustainable Development (SD)
- achieving the 2020 targets on halting biodiversity loss

- water scarcity and extreme events
- climate change

By 2014 the Global Monitoring for Environment and security (GMES) operational services for land, marine and atmosphere will be fully operational and able to provide timely and consistent information in support to policy making and its implementation. Since it is foreseen<sup>29</sup> that the core data will be freely accessible at least for the EEA member countries<sup>30</sup>, important input is expected to be provided to the next reporting cycle (next EEA regular assessment is due in 2015) as part of the regular assessment process on the state of the environment. Similar contributions are expected to feed the national regular assessment processes from 2014 onwards and to positively impact the downscaling of the monitoring stations on the ground.

The Digital Agenda for Europe process support the growth of e-Government services and open data provision. The current review of selected EU legislation (e.g. Public Sector Information-PSI and access to information directives) will have a positive impact on environmental information flows and significant improvements are expected already in 2012.

Until 2019, the current legislation on INSPIRE<sup>31</sup> will have to be fully implemented. Data discovery and access across all INSPIRE themes – using a range of modern IT services will be achieved. What is mandatory for EU member states will be partly or fully implemented as well by a set of neighbouring countries – based on voluntary agreements and their priorities.

The indicator review processes will have led to an improved and more widely shared set of indicators which are underpinned by more continuous e-reporting flows. EEA member countries are expected to be forerunners, complemented by cooperating countries which are keen to share along the same lines. The outcome will feed already into the SOER 2015.

Thematic information services – linked to data centres and beyond - will be more strongly based on indicators, provide more depth and be better integrated across domains. Individual thematic areas in particular air, waste and water are expected to be strengthened in the neighbouring countries through project like the ENP/SEIS by 2014.

## Managing the process

A possible option to manage the process and regularly evaluate the progress in the implementation is to hold an annual meeting convened by EEA and supported by UNECE as secretariat of the process. The co-charing of the process by EEA together with a country, following the model of EE-AoA Steering Group on Environmental Assessment is also a possible option to be considered.

The annual meeting of the parties to the Aarhus convention could also offer the legal platform for assessing progress and coordinating actions towards implementing the requirements of the Astana Declaration. In this context the Secretariat of the Aarhus convention could be assigned to service the Astana follow up activities.

At the sub-regional level, regular evaluations of progress can be organised within the framework of existing programmes and initiatives (e.g. EU water initiative, UNECE EPR 3<sup>rd</sup> cycle, OECD EAP Task Force, ENPI/SEIS project, AWARE project for Central Asia<sup>32</sup>, etc.) feeding into the annual meeting. The regionally based institutional partners (RECs, UNDP country offices etc.)

<sup>29</sup> An EU Regulation is expected by end of this year to endorse the access and use of the GMES information for environmental purposes. It is expected that the core satellite data and the core information services will be widely available free of charge, at least for EU Member States and candidate countries

<sup>30</sup> Clarifications are also expected from the Commission this year on use and dissemination of GMES core services beyond EU (neighbours, etc.)

<sup>31</sup> Infrastructure for Spatial information in European Community – Directive 2007/2/EC establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)

<sup>32</sup> EU funded project to raise awareness on SEIS across the five Central Asia countries implemented by Central Asia Regional Environmental Center (CAREC), see also Annex 2

could assist and support the implementation of the agreed actions at the national and regional level.

All international partners and the countries in each sub-region are invited to express interest in coordinating the implementation of the proposed activities, thematically or at the regional level.

There is also a need to put in place a peer review mechanism to regularly assess progress<sup>33</sup> where countries will play a central role in monitoring progress towards implementing SEIS principles. The AoA methodology through its review templates might serve as backbone for the national assessment while the AoA portal (adapted eventually) could serve as a common and independent platform for informed action and knowledge exchange. EEA together with UNECE, Regional Environmental Centers (RECs), other organisations, NGO<sup>34</sup> forum could establish an independent, voluntary but regular review mechanism for assessing progress at pan-European level<sup>35</sup>.

Following the EEA approach or similar each international organisation and body is invited to review their current work programmes focusing on planned SEIS/assessment related activities and draw a brief overview to be made available via AoA portal ( a special section to be created). Furthermore in the long term all parties based on the Astana mandate are invited to highlight the SEIS related elements in all planned reporting activities and projects and report them using AoA portal. The overviews posted on the AoA portal by June 2012 can be organised in a consolidated plan for 2012-2013 by UNECE/Committee on Environmental Policy Secretariat and submitted to the countries by early September. Furthermore EEA may consider organising a consultation meeting with all stakeholders involved in late September/October to discuss the long term perspective for implementing the Astana mandate in light of Rio+20 outcome and the feedback provided by the countries.

## References

1. COM(2011) 531 final – The Sixth Community Environment Action Programme - Final assessment
2. Article 19 and Access Initiative - Moving from principles to rights – Rio 2012 and access to information , public participation and access to justice for everyone, July 2011
3. COM (2010) 2020 final – Europe 2020, A strategy for smart, sustainable and inclusive growth
4. European Commission, DG Environment – Management Plan 2012
5. UNECE Convention on access to information, public participation in decision-making and access to justice in environmental matters, Aarhus 25 June 1998
6. COM(2011) 363 final – Rio+20: towards the green economy and better governance
7. Draft Commission staff working paper – Implementation plan for a SEIS, November 2011
8. UN ECOSOC – Global geospatial information management, Report presented at the Substantive session of 2011, Geneva 4-29 July 2011
9. World Bank- The WB policy on access to information, July 2010
10. OECD – Recommendation of the Council for enhanced access and more effective use of public sector information, [C(2008)36]
11. Directive 2003/98/EC Re-use of public sector information
12. COM/2009/0212 final – on the review of Directive 2003/98/EC
13. Directive 2003/4/EC on public access to environmental information and repealing D 90/313/EEC
14. COM(2010) 245 final/2 – a digital agenda for Europe

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<sup>33</sup> See UNEP paper para 23

<sup>34</sup> Para 44 UNEP paper

<sup>35</sup> UNEP paper para 25 “National reports on implementation could be reviewed through an intergovernmental process and international assistance and enabling activities could focus on implementing gaps”

15. Seventh “Environment for Europe” Ministerial Conference – Ministerial Declaration “Save water, grow green!”, Astana 21-23 September, 2011
  16. Seventh “Environment for Europe” Ministerial Conference – Chair’s Summary of the conference, Astana 21-23 September, 2011
  17. UNECE regional Preparatory meeting for UNCSD – Report of the regional preparatory meeting for the UN conference on Sustainable Development – Co-chairs’ summary of the meeting, Geneva 1-2 December 2011
  18. UNEP – Guidelines for the development of national legislation on Access to information, public participation and access to justice in environmental matters, adopted by UNEP Governing Council, Bali 26 February 2010
  19. Eye on Earth Summit Declaration, Abu Dhabi 12 December 2011
  20. EEA – Europe’s Environment – An assessment of assessments, 2011
  21. CAREC – EE-AoA, Central Asia, September 2011
  22. REC Moldova – EE-AoA Eastern Europe, September 2011
  23. REC Russia – EE-AoA The Russian Federation, September 2011
  24. REC Caucasus – EE-AoA Caucasus, September 2011
  
  25. EEA – State and outlook Report 2010, Synthesis
  26. COM (2011) 152 – Towards a space strategy for the EU that benefits its citizens
  27. Regulation 911/2010 on the European earth monitoring programme (GMES) and its initial operations (2011 to 2013)
  28. COM (2011) 831 on the European earth monitoring programme (GMES) and its operations (from 2014 onwards)
  29. Directive 2007/2/EC establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)
  30. GEOSS Data Sharing Action Plan- for the implementation of the GEOSS data Sharing Principles , GEO- VII Plenary, November 2010, see:  
[http://www.earthobservations.org/documents/geo\\_vii/07\\_GEOSS%20Data%20Sharing%20Action%20Plan%20Rev2.pdf](http://www.earthobservations.org/documents/geo_vii/07_GEOSS%20Data%20Sharing%20Action%20Plan%20Rev2.pdf)
  31. Group on Earth Observations - GEO 2012-2015 Work Plan, 13 December 2011
  32. EEA- Review of EEA indicators – update and proposed approach to the refresh of the Core Set of Indicators (CSI), internal note January 2011
  33. EEA – Cooperation Agreement between the Government of Greenland and EEA, 25 November 2010
  34. UNEP Governing Council – Discussion paper “International environmental governance in “The future we want”, 24 January 2012 (UNEP/GCSS.XII/13/Add.2), see:  
[http://www.unep.org/gc/gcss-xii/docs/working\\_docs.asp](http://www.unep.org/gc/gcss-xii/docs/working_docs.asp)
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## Annex 2 to Doc. EEA MB/62/15 - SEIS implementation activities

### a) EEA/Eionet SEIS implementation activities

Lead	Geographical Area	Project	Focus* (G/C/I)	Time line	Activities	Member country / country impact
EEA / ESTAT	EEA 39 + ENPI-SEIS 16 partner countries	Indicator review	Content	2012-2014	<ul style="list-style-type: none"> <li>Joint project with Eurostat on a shared approach and set of indicators</li> <li>Revised indicator management system</li> <li>Update of GEMET to represent indicator terminologies and other user needs</li> <li>Development of comparable regional indicator sets for ENPI East and ENPI South, taking into consideration the EEA CSI review process</li> </ul>	<ul style="list-style-type: none"> <li>Reduced set of more policy relevant indicators</li> <li>Better tailored to user needs</li> </ul>
EEA	EEA 39 + ENPI-SEIS 16 partner countries	SENSE	Infrastructure (I)	2012-2014	<ul style="list-style-type: none"> <li>SENSE2 project to allow exchange of indicator and underpinning data and information between EEA and member countries and amongst countries (supported by semantic web technologies)</li> <li>SENSE2 project meeting as part of the NRC EIS workshop at INSPIRE conference 6/2012</li> <li>Expanding SENSE examples to ENPI region</li> <li>Continued work from 2013-15 to stepwise build an operational system incl. enhanced indicator – data linkages and increased country participation with the aim to underpin the 2015 SOER</li> </ul>	<ul style="list-style-type: none"> <li>More consistent message on the countries SOE</li> <li>Less “reporting” burden</li> </ul>
EEA	EEA 39 + ENPI-SEIS 16 partner countries	SEIS state of play review	Governance (G)	2012 onwards	<ul style="list-style-type: none"> <li>SEIS country visits where needed, identifying further country priority needs and joint actions (also between Eionet and ENP partners)</li> <li>Support national activities on demand</li> <li>Progressive inclusion of good practice examples of SEIS implementation in the ENP region</li> </ul>	<ul style="list-style-type: none"> <li>Modernised information systems</li> <li>Better common understanding</li> </ul>
EEA	EEA 39	European Data Centres	C	2012 onwards	<ul style="list-style-type: none"> <li>Work on the European Spatial Data Infrastructure as a link to National SDIs</li> <li>Identifying the need for and establishing reference data sets – partly servicing across domains</li> </ul>	<ul style="list-style-type: none"> <li>Better data link between Europe and countries</li> </ul>

Lead	Geographical Area	Project	Focus* (G/C/I)	Time line	Activities	Member country / country impact
DG ENV with EEA	EEA 39	eReporting	I	2012-2015	<ul style="list-style-type: none"> <li>• Modernise and further develop thematic reporting systems with emphasis on air (AQD-IPR), water (WISE) and biodiversity (BISE)</li> <li>• Review links between INSPIRE provisions and EU reporting obligation (supported by an INSPIRE eReporting workshop 6/2012)</li> </ul>	<ul style="list-style-type: none"> <li>• Easier reporting</li> <li>• Improved visibility of country data and information</li> </ul>
DG ENV, ESTAT, JRC	EU 27 and volunteers + ENPI- SEIS	INSPIRE implementatio n	I	2012 onwards	<ul style="list-style-type: none"> <li>• Stepwise supporting INSPIRE implementation by finalising data specifications, identifying needs for common code-lists/nomenclatures and registries to host them, establishing an EEA metadata catalogue and link this to European and national SDIs</li> <li>• Support implementation activities (content/technology) in thematic areas in close cooperation with countries</li> <li>• Inform and market the INSPIRE/SEIS connections at the INSPIRE conference in Istanbul 6/2012 and the INSPIRE eReporting workshop 6/2012</li> <li>• Dedicated side event planned at the annual INSPIRE Conference in 2012 for the ENP region, supporting activities in the process towards development of Environmental Information Systems and Spatial Data Infrastructure in these countries</li> </ul>	<ul style="list-style-type: none"> <li>• Improved national SDI</li> <li>• Easier access to EU and neighbouring country data</li> </ul>
EEA	EEA 39	NatureWatch	I	2012	<ul style="list-style-type: none"> <li>• Launch a new watch as part of EoE to allow citizen participation around invasive alien species together with the EC</li> </ul>	<ul style="list-style-type: none"> <li>• Complement and support country activities</li> </ul>
EEA	EEA 39	GMES	C	2012-2014	<ul style="list-style-type: none"> <li>• Deliver outcomes of the GISC project related to in-situ activities of countries and (international) organisations in particular establishing links and service agreements</li> <li>• Present and discuss activities during 2012 at the GMES in action: DK Presidency event (6/2012)</li> </ul>	<ul style="list-style-type: none"> <li>• Better linkages of in-situ and earth observation data</li> <li>• Better x-country comparison</li> </ul>
EEA	EEA 39	GIO-land	C	2012-	<ul style="list-style-type: none"> <li>• Under the GMES umbrella and with DG Enterprise funding, develop Corine Land Cover (CLC) update and five thematic high resolution</li> </ul>	<ul style="list-style-type: none"> <li>• Cost reduction on national</li> </ul>

Lead	Geographical Area	Project	Focus* (G/C/I)	Time line	Activities	Member country / country impact
				2014	<p>layers and local components on biodiversity (riparian zones) and the Urban Atlas in close cooperation with EEA member countries incl. the datasets and the necessary web service</p> <ul style="list-style-type: none"> <li>• Present and discuss activities during 2012/13 at the NRC land workshop</li> <li>•</li> </ul>	<p>environmental through replacement by remote sensing derived data</p> <ul style="list-style-type: none"> <li>• Better x-country comparison</li> </ul>
EEA	<p>ENPI-SEIS 16 partner countries:</p> <p>ENP East (6)</p> <p>ENP South (9)</p> <p>Russia</p>	ENP/SEIS	G	2012-2014	<ul style="list-style-type: none"> <li>• Under the European Neighbourhood policy and with DG-DEVCO funding:</li> <li>• Support production of a core set of environmental indicators, underpinned by regular data flow collection, for ENP-East and Russia in line with EEA CSI to monitor progress and to review of environmental policies in support of various national, regional and international obligations</li> <li>• Support the development of regular data flows for the production of indicators and regular reporting to international agreements</li> <li>• Provide capacity building and expert support activities to the partner countries in the identified priority areas (air, water and waste), jointly with key partners and international organisations active in the region as relevant</li> <li>• Reinforce countries' capacities in the field of monitoring, collection, storage, assessment and reporting of environmental data in the relevant environmental authorities including the national statistical systems (creation of a dedicated IT Working Group, publication of a first edition of a 'SEIS cookbook', participation in relevant EEA/EU thematic meetings, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Streamlining leads to a reduced number of indicators to be compiled, i.e. increasing the efficiency of the data collection/storage process and provide clearer guidance on indicators' definition, metadata, presentation/analysis concepts</li> <li>• Indicator sets will be tailored to different users' needs, meeting better policy demand and international reporting obligations</li> <li>• Allowing countries a better approximation</li> </ul>
EEA	pan-	SERIS +	C/I	2013	<ul style="list-style-type: none"> <li>• Plan a follow-up project in 2013 to building on the Astana Assessment of Assessments (AoA) application – linked with the SENSE2 project</li> </ul>	<ul style="list-style-type: none"> <li>• More visibility of country assessments</li> </ul>

Lead	Geographical Area	Project	Focus* (G/C/I)	Time line	Activities	Member country / country impact
	European					
EEA	Global	Eye on Earth network	I	2012 onwards	<ul style="list-style-type: none"> <li>• Further develop the Eye on Earth (EoE) Network application</li> <li>• Maintain and enhance available watches</li> <li>• Fully establish the EoE governance arrangement</li> <li>• Market EoE to new partners</li> <li>• link EoE to UNEP Life</li> <li>• Run an EoE user conference early 2013</li> </ul>	<ul style="list-style-type: none"> <li>• Easier access to and distribution of environmental information</li> </ul>
Open communities EEA as Partner	Global	Global Network of Networks (GNoN)	G	2012-2014	<ul style="list-style-type: none"> <li>• Further develop the GNON initiative as a Special Initiative stemming from the Abu Dhabi summit. The initiative aims to connect relevant international networks dealing with environmental information which are previously not related in a similar way</li> <li>• Eye on Earth summit 2 in early 2014</li> </ul>	<ul style="list-style-type: none"> <li>• Improved country participation in international networking and information exchange</li> </ul>
GEO EEA as partner	Global	GEOSS contribution	I	2012-2015	<ul style="list-style-type: none"> <li>• Contribution to GEOSS work plan through the Ecosystem Capital Accounting and the linkage of EoE with the GEOSS GCI architecture</li> <li>• Develop the link GEOSS-EoE- mainly through the EuroGEOSS project</li> <li>• Continuous delivery of EEA data to the GEOSS data core</li> <li>• Participation in the establishment of the GEOSS data sharing principles</li> </ul>	<ul style="list-style-type: none"> <li>• Better visibility and access of national data to the international level and vice versa</li> </ul>
EEA	EEA 39	Eionet Priority Data Flows	C	2012 onwards	<ul style="list-style-type: none"> <li>• Enhance both, quality and quantity of EEA member countries delivery to EEA</li> <li>• EEA publishes annual report on detailed performance</li> <li>• In 2014 consider the inclusion of reference data from the ENP countries</li> </ul>	<ul style="list-style-type: none"> <li>• Enhanced performance of countries in benchmarking</li> </ul>
DG ENV	EU 27	Better regulation /	G	2012	<ul style="list-style-type: none"> <li>• The "Draft Commission Staff Working Paper" on SEIS implementation indicates activities to review reporting obligations and related</li> </ul>	<ul style="list-style-type: none"> <li>• Improved legislation meeting better</li> </ul>

Lead	Geographical Area	Project	Focus* (G/C/I)	Time line	Activities	Member country / country impact
		revision of directives		onwards	<ul style="list-style-type: none"> <li>legislation according to the policy review cycle</li> <li>Incl. SEIS for ENP</li> </ul>	member countries needs
DG InfSoC	EU 27	EU Digital Agenda	I	2012-2020	<ul style="list-style-type: none"> <li>A range of actions will be identified to be implemented by the EU Commission and suggested to countries. Mainly they are related to e-Government and open data activities</li> </ul>	<ul style="list-style-type: none"> <li>Modernised in- and external member country services</li> </ul>

**b) Other project-based activities supporting SEIS implementation at pan-European level**

*[N.B. List to be completed by countries, international organisations, NGOs, business community]*

UNEP/Grid Arendal EEA as contributor	Caspian sea countries (Azerbaijan Russia Kazakhstan Turkmenistan Iran)	Dev. of Caspian Environment Information Center		2012-2013	<ul style="list-style-type: none"> <li>Web Portal environment</li> <li>Content, documents and meta-data management system</li> <li>Interactive GIS database &amp; Stakeholders and Projects database</li> <li>Inputs to first draft of Caspian Environment Atlas and State of Environment report</li> </ul>	<ul style="list-style-type: none"> <li>Set up a centralised database and information management system to store data and support reporting to Caspian convention</li> <li>Capacity building and enhanced cooperation</li> </ul>
CAREC EEA as contributor	Central Asia (5)	AWARE SEIS		2012 - 2013	<ul style="list-style-type: none"> <li>Workshop and seminars in each CA countries promoting SEIS benefits</li> </ul>	<ul style="list-style-type: none"> <li>Raise awareness concerning SEIS and its benefits</li> </ul>
					<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
					<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>

Legend:

\*Focus: refers to the SEIS pillars G – governance C – content I - infrastructure