



## UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE

Consultation meeting on the priorities for implementation of the ENPI Shared Environment Information System (SEIS) project  
Brussels, 11-12 November 2010

“SEIS state of play in the ENP East region” as part of the European Commission funded project to EEA “Towards a Shared Environment Information System (SEIS) in the European Neighbourhood Countries”

### COUNTRY PROFILES

#### ARMENIA

##### 1. Environmental management structure

The main authorized executive body in the ecological field is the Ministry for the Environment Protection that includes the following divisions: Department for Environmental Protection, Norms and Standards Department, Department for Protection of Soils and Subsoils and Geological Monitoring, Department for Management of Harmful Substances and Waste, Agency for Biological Resources Management, Agency for Water Resources Management, State Environmental Inspection and some other divisions supporting the Ministry’s activity.

The Ministry for Emergency Situations, that includes the State Service for Hydrometeorology and Monitoring (Armstatehydromet), coordinates the governmental policy in the field of population protection in emergencies.

The Ministry for Agriculture performs the state policy in the field of forestry.

The Ministry for Health Protection, that includes sanitary and epidemiologic bodies, performs the state policy in the field of the population health protection including quality of drinking water and recreation zones.

The State Committee for Nuclear Safety provides environmental protection from nuclear energy.

The National Statistical Service, providing statistical data including environmental data, is not included in the governmental structure, but subordinate to the President directly. In Armenia there is also the State Statistical Council which consists of six persons appointed by the President. The main task of this body is development of the state policy in the field of statistics, adoption of normative documents and coordination of activities of different statistical sectors.

## 2. Multilateral environmental agreements (MEA) and obligations

Data on the participation of Armenia in the MEA and the programs listed in Table 1

**Table 1. Armenia participation in the MEA and programs**

MEA/Programme	Date of signature	Date of ratification (Rt), accession (Ac), approval (Ap), adoption (At), entry into force (EIF)
<b>Global</b>		
<b>UN Framework Convention on Climate Change (New-York, 29 May, 1992)</b>	13.06.1992	14.05.1993 (Rt)
Kyoto Protocol (Kyoto, 1997)		25.04.2003 (Rt)
<b>Convention for the Protection of the Ozone Layer (Vienna, 1985)</b>		01.10.1999 (Ac)
Montreal Protocol on Ozone Depleting Substances (Montreal, 1987)		01.10.1999 (Ac)
London Amendment		26.11.2003 (Ac)
Copenhagen Amendment		26.11.2003 (Ac)
Montreal Amendment		18.12.2008 (Rt)
Peking Amendment		18.12.2008 (Rt)
<b>Convention on Biological Diversity (Rio-de-Janeiro,1992)</b>		14.05.1993 (At)
Cartagena Protocol (Montreal, 2000)		30.04.2004 (Ac)
<b>United Nations Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa (Paris, 1994)</b>	14.10.1994	02.07.1997 (Rt)
<b>Convention on POPs (Stockholm Convention)</b>	23.05.2001	26.11.2003 (Rt)
<b>Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel, 1989)</b>		01.10.1999 (Ac)
<b>Convention on Wetlands of International Importance (Ramsar Convention)</b>		06.11.1993 (EIF)
<b>Convention Concerning the Protection of the World Cultural and Natural Heritage</b>	05.09.1993	
<b>International Convention for the Regulation of Whaling</b>		
<b>Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)</b>		21.01.2009 (EIF)
<b>Convention on the Conservation of Migratory Species of Wild Animals</b>		
Agreement on the Conservation of Populations of European Bats		

Agreement on the Conservation of African-Eurasian Migratory Water-birds		
Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area		
<b>International Convention for the Prevention of Pollution from Ships</b>		
<b>FAO Global Forests Resources Assessment</b>		Participates
<b>Regional</b>		
<b>Convention on Long-Range Transboundary Air Pollution (Geneva, 1979)</b>		21.02.1997 (Ac)
Protocol on Reduction of Euthrophication, Oxidation and Formation of Ground Ozone	01.12.1999	
Protocol on Persistent Organic Pollutants (Aarhus, 1998)	18.12.1998	
Protocol on Heavy Metals (Aarhus, 1998)	18.12.1998	
Protocol on Further Reduction of Sulphur Emissions (Oslo, 1994)		
Protocol on Limitation of Emissions of Volatile Organic Compounds or their Transboundary Fluxes (Geneva, 1991)		
Protocol concerning the Control of Emissions of Nitrogen Oxides or their Transboundary Fluxes (Sofia, 1988)		
Protocol on the Reduction of the Sulphur Emissions or their Transboundary Fluxes by at least 30 per cent (Helsinki, 1985)		
Protocol on a Long-Term Financing of a Joint EMEP Program		
<b>Convention on the Protection and Use of Trans-boundary Waters and International Lakes</b>		
Amendment		
Protocol on Water and Health	17.07.1999	
<b>Convention on the Transboundary Effects of Industrial Accidents</b>		21.02.1997 (Rt)
<b>Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus, 1998)</b>	25.01.1998	01.08.2001 (Rt)
Amendment		
Protocol on Pollutant Release and Transfer Register	21.05.2003	
<b>Convention on Environmental Impact Assessment in a Transboundary Context</b>		21.02.1997(Ac)
Amendment 1		
Amendment 2		
Protocol on Strategic Environmental Assessment	21.05.2003	

<b>Convention on the Conservation of European Wildlife and Natural Habitats</b>		01.08.2008 (EIF)
<b>Subregional</b>		
<b>Reporting to the Inter-state Statistical Committee of the Commonwealth of Independent States</b>		Yes

Environmental information on the implementation of multilateral environmental agreements is submitted to the secretariats of the Conventions and Protocols according to the required regular intervals in the form of questionnaires, reports and national reports.

**a) Reporting under the global MEAs**

Armenia is the party to 9 global conventions and three protocols to them.

In August 2010 the Second national report on climate change was prepared and sent to the Secretariat of the UN CCC in the Armenian and English languages ([www.nature-ic.am](http://www.nature-ic.am); [www.mnp.am](http://www.mnp.am)). At present printing of this document is in progress. The First national report on climate change was distributed in the national and Russian languages in 1998.

Implementing the requirements of the Convention on Biological Diversity, the Fourth national report on biological diversity in English was submitted to the Convention Secretariat in 2010. The report is on the site of the Secretariat.

In 2006 the third Report on desertification was prepared and published in Armenian and English (in 2002 the National Action Program to combat desertification was developed). The report is available in English at the site of the Convention Secretariat: <http://www.unccd.int>.

In 2003 an assessment of the national potential to implement three conventions (on desertification, biological diversity and climate change) was performed. This work was carried out within the framework of the UNDP/GEF project in the national language.

Within the framework of the Convention for the Protection of the Ozone Layer Armenia ratified London and Copenhagen Amendments in 2003, and in 2008 – Montréal and Peking Amendments. The data on consumption of ozone depleting substances is submitted to the Convention Secretariat annually. The data is on the sites: <http://www.ozone.nature-ic.am>; <http://www.UNEP.org/ozone> in national, English and partially in Russian.

As the Party to the Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, Armenia on a regular basis submits national reports to the Secretariat of the Convention. The latest report for 2006 is published online in English at the Convention's site (<http://www.basel.int/natreporting>).

In line with the provisions of the Convention on Persistent Organic Pollutants Armenia presented in 2007 the National report, which cover the time period from 2003 through 2006. The text of the report in English and Russian is available at the Convention's site: <http://www.pops.int>.

Under the Ramsar Convention on Wetlands of International Significance the country regularly provides national reports on the implementation of the Convention requirements. The most recent is for 2008 was submitted in English and is available online at the Convention's site: <http://www.ramsar.org>.

Being the Party to the Convention on International Trade in Endangered Species of Wild Fauna and Flora, Armenia though does not provide reports on this type of activity.

Armenia prepared and presented to the UN Food and Agriculture Organization the report “Global Forest Resources Assessment 2010”, which is available online at: <http://www.fao.org/forestry/20262-1-156.pdf>

Armenia on a regular basis presents reports on implementation of the Agreement on the Conservation of Populations of European Bats not being the party to the Convention on the Conservation of Migratory Species of Wild Animals. The latest report for 2008 in English is presented online at the site: [http://www.eurobats.org/documtnts/national\\_reports.htm](http://www.eurobats.org/documtnts/national_reports.htm).

Other environmental reporting to the international community (UNEP, UNECE, OECD etc.) is provided in a form of questionnaires, reports, reviews and communications according to the required formats and content.

### **b) Reporting under the regional MEAs**

Armenia is the party to five regional conventions and six protocols to them.

Implementing requirements of the Convention on Long-Range Transboundary Air Pollution, Armenia annually from 1980 to 2003 submitted data on emissions in the air of polluting substances to the Norway Chemical Coordination Center in Oslo. Information on data presentation is available online at the Convention’s site: <http://www.unece.org/env/lrtap/>. After transfer of these functions to Vienna Center and complication of a calculation method, the data for 2007 was submitted to this Center. At present the data on emissions for the period of 2004-2006 and 2008 is under processing. The Protocol on a Long-Term Financing under the Convention is at the stage of ratification. Other Protocols are not yet ratified, as their implementation by the country is impossible at present for technical and financial reasons.

As the Party to the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters Armenia regularly reports on the work done to the meeting of the Parties of the Convention, as well as participates in the meetings of its working bodies. The latest report for 2008 in English, French and Russian is available online at the Convention’s site: <http://www.unece.org/env/pp/>.

Under the Convention on Environmental Impact Assessment in a Transboundary Context Armenia on a regular basis is providing reports on this activity. The latest report for the period 2003-2009 was presented in Russian in August 2010 and is available online at the Convention’s site: <http://www.unece.org/env/privet.htm>.

Aimed at implementation of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, Armenia prepared in Russian and presented in April 2010 the Brief report in line with the Protocol on Water and Health. The report is available at the Convention’s site: <http://www.unece.org/env/water>.

In 2004 Armenia prepared the National Report on the role of ecosystems as the source of water within the framework of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, being not a Party to this Convention.

### **c) Reporting under the sub-regional MEAs.**

Each year, the Interstate Statistical Committee of the Commonwealth of Independent States (CIS STAT) provides data on environmental protection, which are placed in the annual statistical compilation issued in Russian and English languages. Information about the publications of the CIS-STAT is available at <http://www.cisstat.com>.

### **3. Environmental legislation**

The Supreme Council of Armenia adopted on July 9 1991 the “Basic legislation of the Republic Armenia for the environment protection”. In 2006 this document deserted as the Parliament adopted a decision to fix environmental norms with a law, and the adopted in 1991 document is not of this kind. According to the National Action Program on the Environment Protection adopted by the Government of the Republic of Armenia, this draft law should be elaborated and presented to the government in 2012.

During its independence period Armenia adopted several laws and normative documents concerning protection of natural resources and environment. They include the following:

- the Law “Protection of atmospheric air”, 1994;
- the Law “Flora of the Republic Armenia”, 27.12.1999;
- the Law “Fauna of the Republic Armenia”, 12.05.1999;
- Land Code of the Republic Armenia, 15.06.2001;
- Water Code of the Republic Armenia, 10.07.2002;
- The Law “Wastes”, 24.11..2004;
- the Law “Environmental control”, 11.04.2005;
- the Law “Basic principles of the national water policy”, 15.06.2005;
- Forestry Code of the Republic Armenia, 12.07.2005;
- the Law “Special protected natural areas”, 27.11.2006;
- the Law “National water program”, 25.12.2006;
- the Law “Substances depleting the ozone layer”, 25.12.2006, with amendments of 2010.

Totally the country counts 27 environmental laws and multitude laws with environmental protection norms.

On November 5, 2003 the Law “On Free Information” was adopted.

Moreover, the Government of Armenia adopted several environmental resolutions/decrees such as:

- “Adoption of the list of activities for implementation of international obligations of the Republic of Armenia in some environmental conventions” dated 19.01.2005, which fixes implementation of the UN Convention on Climate Change, Convention on Biological Diversity and Convention to Combat Desertification”;
- “Adoption of the procedure for monitoring of water resources and registration of reports” of 22.05.2003, № 639-N;
- “Introduction of a system for the state monitoring of forests” dated 2005;
- “Establishment of arrangements for and implementation of the state monitoring of forests” dated 14.03.2007;

- “Establishment of the procedure for monitoring of special protected natural areas” dated 30.08.2007, N. 1044-N;
- “Adoption of the procedure for monitoring of flora” dated 22.01.2009. № 120-N;
- “Adoption of the procedure for monitoring of fauna” dated 22.01.2009, № 121-N;
- “Adoption of the procedure for monitoring of lands” dated 19.02.2009 № 276-N;
- “On adoption of order for presentation of data of the state cadastre of flora” of 23.07.2009 № 831-N;
- “Adoption of the procedure for submission of data of the state cadastre of fauna” dated 23.07.2009, № 832-N.

Laws and sub-laws are available in the Armenian language on the web sites of the Ministry for the Environment Protection (<http://www.mnp.am>) and the Parliament of Armenia (<http://www.parliament.am>).

#### **4. Monitoring**

At present a special law on monitoring does not exist in the country. There is no legal basis for a comprehensive monitoring and data/information management on the national level and, consequently, a unified database and a net-like system of information exchange do not exist.

In 2004 the Agency for Hydrometeorology and Environmental Monitoring, as a component of the Ministry for the Environment Protection, was eliminated. However, the Armenian State Service for Hydrometeorology and Monitoring as part of the Ministry for Emergency Situations was established. Instead of the Agency, a special division was established in the Ministry with functions to conduct air monitoring. In 2009 the division was eliminated and the Department for the Environment Protection of the Ministry for the Environment Protection was entrusted with a responsibility to conduct monitoring.

A common system of ecological monitoring and database management are absent in the country, which leads to inefficient use of funds, work duplication, absence of a unified base of environmental data, decrease in data reliability and comparability for managerial decision-making.

Because of the economic crises, activities included in the Action Program for Environmental Monitoring in 2007-2011, according to the “Concept on the State Environmental Monitoring” approved by the Armenian government, are not implemented.

At present there is no national program for soils monitoring, observations are irregular, despite the fact that the Action Program for modernization of the state monitoring system for 2007-2011 envisages monitoring of soils quality, which should be financed by the state budget of Armenia.

Regular monitoring of biological diversity is not conducted as well, despite the fact that in the beginning of 2009 the government endorsed a decree concerning monitoring of the flora and fauna in special protected areas, which provides a regulating normative basis for monitoring of biological resources (including forests) and biological diversity.

Different types of monitoring are performed by organizations belonging to various ministries and agencies, which mostly have a juridical form of the state non-commercial organizations. Monitoring is performed by:

- the Centre for Monitoring of Impact on the Environment (Armeconmonitoring), which is under the Ministry for the Environment Protection, carries out monitoring of atmospheric air, quality of surface water, soils pollution. In 2006 the Centre's laboratory got the state accreditation for 5 years to carry out monitoring of quality of air, water, soils, atmospheric precipitation, flora, fauna and microorganisms in compliance with the international norms and standards. Surface water sampling and their analysis on the whole territory of Armenia is performed every month by the laboratory personnel. Atmospheric air samples are collected at 18 stations of active sampling and at 210 stations of passive sampling and analyzed in situ. Within the framework of TACIC Program "Kura-Araks, phase II" intercalibration of water samples by 10-15 parameters is performed twice a year. Samples of air and atmospheric precipitation undergo annually intercalibration in the Norway Chemical Coordination Centre EMEP. Armeconmonitoring is entrusted with a responsibility to collect information and maintain original database of monitoring.
- Armstatehydromet under the Ministry of Emergency Situations carries out monitoring of hydrological, meteorological, radiometric and ozonometric parameters;
- The Centre of Monitoring of Forest Resources under the Ministry of Agriculture performs monitoring of forests, including forest-covered areas, and forest soils degradation;
- Sanitary-epidemiologic stations under the Ministry of Health control quality of drinking water and water in recreational zones;
- Armstateatominspektion under the State Committee for Regulation of Nuclear Safety perform radiation monitoring of the environment;
- The Agency of Water Resources under the Ministry for the Environment Protection runs water cadastre and issues licenses for special water use;
- The Centre of Hydrogeological Monitoring under the Ministry for the Environment Protection carries out monitoring of ground water.
- The Centre for Research Studies of Waste under the Ministry for the Environment Protection should perform monitoring of waste formation, movement, disposal and utilization.
- The Agency for Biological Resources Management provides monitoring of flora and fauna.
- The State Environmental Inspection under the Ministry for the Environment Protection controls emissions to atmospheric air, discharges to water bodies and collection of information on wastes handling and issues licenses for water use. The main tasks of the Inspection are prevention of the environment pollution, control and sanctions to enterprises violating environmental requirements. The Inspection studies reports with initial/original statistical data received from territorial environmental bodies and, if necessary, analytical laboratories participate in the control (there is one central laboratory in Yerevan and six regional laboratories). Dangerous enterprises are controlled by inspectors twice a year, objects with mid-level danger are inspected once a year, non-dangerous objects are controlled once in three years.

During last 5 years (2006-2010) specific efforts were undertaken to establish in the Republic a modern monitoring system of the environment, air, atmospheric precipitation, surface

and ground waters, soils, forests, biological diversity, as well as exogenous and endogenous processes.

At present preparatory work is in progress to introduce in Armenia requirements of the Directive EC/IPPC. For this purpose a framework law or code on the environment protection is planned to be developed and one chapter of the document will be dedicated to a comprehensive monitoring of the environment and management of the obtained data.

The government approved “The Concept of the State Environmental Monitoring” and the Action Program for its implementation in 2007-2011. Within the framework of the Program some measures were taken to create in the Republic a modern environmental monitoring system, including monitoring of the atmospheric air and precipitation, surface and ground waters, soils, forests, biodiversity, as well as exogenous and endogenous processes.

29 automatic atmospheric air analyzers were purchased (to detect sulphur dioxide, carbon oxide, nitrogen oxide and dioxide, PM2.5 and PM10, the ground ozone layer), at present the equipment is installed and functioning. Automatic and semiautomatic air monitoring stations were obtained: 6 automatic stations have been functioning since 2010 and they will function till the end of this year. It is planned that 1 automatic and 2 semiautomatic stations will function. More than 60 gas analyzers and other equipment for environmental monitoring were purchased.

In 2010 a complex equipment for biological monitoring of surface water and bottom sediments was obtained and installed within the framework of the Action Program of European Union (TACIS). About 20 biological monitoring parameters will be defined, which will allow to calculate index of biological quality of rivers, as one of 3 main biological indicators of water. However, the installed complex equipment is not used due to lack of methodology and properly trained personnel.

For assessment of a transboundary pollution impact on the environment a station for a comprehensive monitoring was installed in the international health resort Tsakhkadzor in the end of 2008. Physical and chemical monitoring of air, water, precipitation and soil is carried on. Since 2010 a background monitoring of atmospheric precipitation (snow, rain) has been carried on in Amberd.

Since the end of 2009 monitoring of bottom sediments in the lake Sevan and river Araks has begun, a joint monitoring of water quality in the river Debet is carried on together with Georgia, and monitoring of the river Araks is performed jointly with Iran.

At present introduction of self-control system is in progress. For this purpose the draft law of the Republic Armenia “Implementation of self-control to imply with the requirements of environmental legislation” was developed and accepted in the second reading. Its aim is to fix requirements concerning self-control by industrial enterprises. These requirements include setting of pollution parameters using norms/standards for detection of environmental pollution by polluting substances:

- contained in emissions and discharges of enterprises and in the soils on the territory of enterprises, including sanitary zones, and detected on the basis of qualitative and quantitative analyses;
- registration of used raw materials and natural resources;
- environmental impact assessment.

The draft law envisages requirements to install by enterprises automatic monitoring systems and submit information on measurement results. The draft law envisages measures of stimulation for installation of automatic self-control systems.

Although some progress has been achieved during last 5 years in the environmental monitoring system, numerous problems remain, which require active decision-making.

Until now a legal basis for a comprehensive monitoring and information management is absent, as well as a unified database and a network structure. This gap is planned to be eliminated by a 3-years UNDP/GEF project “Development of Institutional and Legal Potential in Armenia” aimed at optimization of the environmental monitoring system and information for a global ecological management”. As a result in 2012 the Republic will have a modernized, unified and viable system of monitoring and information and properly arranged database.

## **5. Environmental data and information exchange**

In the end of 2009 it was planned to create a special internet-site to collect all monitoring information with a free access. But until now the system of data processing, quality control and management has not been changed as there is no legal basis for a comprehensive monitoring and information management at the national level and, consequently, a common database and a network system of information exchange required for this do not exist.

All monitoring data is compiled in monthly bulletins and uploaded in the internet-sites of the Ministry for the Environment Protection (<http://www.mnp.am>, <http://www.mnpiac.am>) and Armstatehydromet (<http://www.meteo.am>).

In the Republic the environmental information is collected according to 26 state and administrative reporting formats and compiled in 5 combined reports and bulletins.

The following state executive bodies of the Republic are engaged in collection, processing and publication of the environmental data:

- the National Statistical Service;
- the Ministry for the Environment Protection;
- the Ministry of Health;
- the Ministry of Energy and Natural Resources;
- the Ministry for Emergency Situations;
- the Ministry of Agriculture;
- the Ministry of Area Management.

The information users are: the state management bodies including the state territorial management bodies and local municipal authorities, scientific- research, educational and business structures, international and non-governmental public organizations, mass media.

The Information Analytical Center is functioning under the Ministry for the Environment Protection. Its main tasks are collection, processing and compilation of database from statistical information received mainly from the State Environmental Inspection, as well as uploading of the processed current monitoring information in the web site of the Ministry for the Environment Protection (<http://www.mnp.am>). But only the current (monthly) data concerning levels exceeding the set norms/standards is uploaded in the site. The data is not accumulated at the website, but is substituted with newly arrived data, compressed and provided upon requests.

Armeconmonitoring publishes monthly and annual bulletins in the Armenian, which contain data on the quality of atmospheric air in towns, atmospheric precipitation and surface water quality and starting this year – lands. The bulletins are in the web site <http://www.armecomonitoring/am>.

The UNDP/GEF Program concerning management of the data on green-house gases is in progress in Armenia. At present within the framework of the Program an inventory of green-house gases emission sources is carried on and in future it is envisaged to introduce green-house gases inventory systems and information management.

In the country there is no common informational resource, which allows to find quickly the required information and this fact complicates its search. The web site of the Ministry for the Environment Protection is not updated frequently. The main reasons are:

- insufficient amount of the required information for updating;
- shortage of technical and human resources;
- deficiency and sometimes lack of financial resources.

At present there is no available electronic base of water cadastre in the country.

One of the main problems in the system of information processing is lack of a server of a great capacity, as well as up-to-date programs of data processing.

The main data is presented in Word, bulky information – in PDF. It is necessary to process incoming information in Excel or in Access that will allow processing it more quickly.

Moreover, it is necessary to supply and introduce in a work practice the program GEO-portal similar to portals used in the European Union that will allow not only to see this information in various formats (tables, graphs, and maps), but to exchange it with the countries – members of EU.

In order to improve institutional mechanisms for the data use and exchange among the Ministry for the Environment Protection, National Statistical Service, Ministry of Energy and Natural Resources, Ministry of Agriculture, Ministry of Health, Ministry of Transport and Communication, Ministry of Emergency Situations, Committee for Water Management under the Ministry of Territorial Management, Hydrometeorological Service and ecological organizations and institutes a 3-years (2009-2011) UNDP/GEF Project “Development of the Institutional and Legal Potential in Armenia with the Aim of Optimization the Environmental Monitoring System and Information for a Global Environmental Management” is under implementation. Within the framework of this Project legal acts are developed by which appropriate amendments and supplements are introduced in the environmental laws and normative documents regulating the environmental monitoring and information management, and recommendations are given how to update the institutional structure and mechanisms at the national and ministerial levels. Within the framework of the Project the development of a new web site with the elements of a portal will allow every organization that submits its monitoring information, to have its entry/heading where the initial information in PDF format (in future – in Excel) will be located.

In the country there are no structures that develop modern and scientifically proven standards, methods and instructions. Due to lack of funding the scientific-research organizations that worked during the period of the former USSR were closed, but a direct application of the EU standards, methods and instructions in such countries as Armenia is not always possible.

Improvement of the standards and norms system in the field of the environment monitoring is envisaged within the framework of the Action Program for 2009-2011 “Policy of the European Neighborhood: Republic of Armenia – European Union” adopted by a presidential decree. But this does not mean that all standards, methods and instructions can be updated within the framework of this Program. At present the important sources for elaboration of standards, methods and instructions on monitoring are the recommendations of the international organizations, and particularly, the recommendations of the Joint Ad Hoc Group on Environmental Indices and the Working Group on the Environment Monitoring and Assessment of the ECE UN. So, for improving its monitoring system the country uses the recommendations of the mentioned groups and the representatives from Armenia actively participate in the work of these groups.

## **6. Comparability of Information**

Data contained in the reports on MEAs implementation, as a rule, are comparable with data from other countries, as these reports are prepared on the basis of formats developed by the secretariats of these conventions.

Data, published in publications disseminated inside the country (for instance, environmental bulletins) could also be considered as comparable with data from other countries, when they are presented in absolute values (for example, data on emissions into the air basin, concentrations of pollutants in atmospheric air, water objects, soil), but they could not be comparable with data of European countries, if they are presented in units and shares of maximum permissible concentrations. In particular, data on wastes are incomparable with data of EU countries as the wastes classificatory used is not matching the pan-European.

Incomparable with data of EU countries are data on wastes, as the classificatory used for it is not matching the pan-European. At the same time, these data are comparable to data of the majority of the former Soviet Union countries.

## **7. Environmental assessment**

In 2003 the National Report on the State of the Environment in Armenia in 2002 was developed in cooperation with UNECE and published with the financial support by the EU (<http://www.mnpjac.am>). The Report consists of five parts and has the following structure.

### Summary

#### Part I. The state of the environment and natural resources

1. Atmospheric air quality
2. Climate change and ozone layer
3. The state of surface and ground water
4. Land resources and soils
5. Biological diversity. Flora. Fauna. The current state of fisheries in Armenia in special protected areas
6. Geology
7. Harmful substances and waste. Radioactive waste. Tailings dump
8. Sanitary state of the environment and its impact on health

#### Part II. Impact on the environment

1. Industry and energy. A nuclear-electric power station in Armenia
2. Agriculture
3. Transport

4. Housing and municipal services
5. City designing and building

### Part III. Cultural heritage

Natural and anthropogenic impact on monuments

### Part IV. Hot spots

1. The city of Yerevan
2. The Lake Sevan

### Part V. Environmental policy and the state regulation of the nature use and protection

1. Management system. Legal basis
2. The State control
3. Environmental expertise
4. Economic and financial instruments
5. International cooperation and environmental programs
6. Scientific research
7. Non-governmental environmental organizations and public participation
8. Environmental education and upbringing
9. Information distribution and feed back

Conclusions.

The report used the elements of ecological parameters concerning pollution level of air in towns for a 6-years period, emissions from stationary sources and automobile transport during a 10-years period (total emissions and per separate harmful substances); change in temperature and sums of atmospheric precipitation; the ozone layer level; fresh water intake; content of nitrites, ammonium nitrogen and biochemical oxygen demand (BOD5) in the river Razdan; the state of forests; endangered species and species under protection; special protected areas; waste formation.

After 2003 the national reports or other assessment reports were not elaborated and published in the country.

The basic environmental information in the country is produced by the National Statistical Service which regularly produces different statistical documents. They are uploaded in the web site (<http://www.armstat.ru>). In particular, the following publications:

- monthly reports on the social and economic state of the country in the national and Russian languages with a chapter “Monitoring of the Environment Pollution” (air and surface water quality, forestry, reforestation, forest devastation, the state of special protected areas). Number of copies printed – 50-75;
- annual statistical reports in national, Russian and English, which also have chapters related to the state of the natural resources and environment protection. Edition -500 copies;
- annual statistical collection “The Environment and Natural Resources of the Republic Armenia” in national and English. It includes sections concerning protection of soils, forests, special protected areas; quality of air, water bodies, soils; air emissions; water protection; waste management (formation, movement, disposal, utilization); financial resources and funding of environmental activities; emergency situations of natural and technogenic character which impact the environment. The document contains lots of tables

- and illustrative material, dynamic range of data for the period of more than 20 years with changing trends in some parameters;
- statistical collection “Housing and Municipal Services in the Republic of Armenia”, which contain statistical data on municipal water supply and sewage, management of solid waste (for some parameters – the data for a 20-years period);
- statistical collection “Transport and Communication in the Republic of Armenia” with statistical data on passengers turn over, cargo turn over regarding types of transport (for some parameters – the data for a 20-years period);
- the Ministry for Emergency Situations publishes collections on emergencies in the country.

The main parameters/indices applied in Armenia are: air pollution and depletion of the ozone layer, climate change, pollution and use of water, land resources and soils, waste management. They in general coincide with the main list of the environmental indices of the ECE UN for EECCA countries and were adopted by the laws and governmental decrees, as well as endorsed by technical regulations. The mentioned parameters are used for elaboration of different reports and in the first place for preparation of statistical collections. But it is necessary to note that for some parameters standards of the former USSR are still valid and they should be revised according to the EU directives.

At present a draft decision of the Government of Armenia “Adoption of the List of Monitoring Parameters” is prepared according to the manuals of the UN ECE “The Environmental Indices and based on them Assessment Reports” and ready for endorsement.

Since 2006 an illustrated magazine “Nature” has been published in the country in the Armenian language which covers environment protection problems, analyses them and methods of their decision.

In Armenia 14 Aarhus-centers were established, their task is to increase public awareness in environmental matters, public participation in environmental decision-making and information on the basic environmental legislation. All these centres are independent organization established by a joint memorandum between the Government and OESC. Every centre annually and regularly reports on their activities to the OESC office in Yerevan. Information in national, Russian and English is uploaded in the site and updated daily (<http://www.aarhus.am/>).

## **8. Gaps in information, shortcomings and obstacles**

Armenia lacks the legislative ground for carrying out the integrated monitoring, unique system of environmental monitoring and information management at the national level, and, respectively, lacks the unique data base and network information sharing system.

There is no regular biodiversity monitoring, no national soil monitoring programme.

The country lacks unique informational resource that allow for fast retrieve of the required information, what makes its search enough difficult. Large massifs of information are still storing in paper copies. The Ministry of Nature Protection site has no frequent information updates.

There is a necessity in development and introduction of the modern portal software (for instance, GEO-portal software), in analogue to portals used in the European Union, what would allow not only see this information, but share data with the EU countries.

The country lacks structures that develop modern and scientifically grounded standards, methods and instructions, what hampers direct use of EU standards, methods and instructions.

By the present time there are no regular national reports on the state of the environment issued in Armenia as no legal and institutional base is established for it.

To a significant degree the development of monitoring programmes, establishment of full-fledged integrated environmental monitoring system in the Republic, environmental data management, establishment of a comprehensive unique data bases, preparation of assessment reports of different level is hampered with insufficient funding of environmental costs, its drastic decrease in recent two years, dependence of environmental tasks addressing on funding of programmes by various international organizations. The state funding of environmental monitoring in 2010 decreased in compare to 2007 for five and half times, and in compare to 2005 – for over two times.

It is expedient to upload the national reports and communications, made by the country to implement its international environmental obligations at the Ministry of Nature Protection site.