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COUNTRY PROFILES

UKRAINE

1. Overall structure of environmental governance

The Ministry of Environmental Protection (MoEP) is responsible for environmental management in Ukraine. MoEP is responsible for the development and implementation of legal documents which form the body of laws on environment. The Ministry comprises 27 regional divisions.

Three structures are subordinated to the Ministry:

- State Geological Service
- State Natural Reserve Service
- State Environmental Inspection.

The MoEP has within its structure the State Committee on Water Management of Ukraine (Gosvodkhoz).

Interagency Cooperation Mechanisms

The Ukrainian Ministry for Health Protection implements the governmental policy in public health and disease protection. The State Sanitation and Epidemiological Service of the Ministry monitors adverse impact of environmental factors on public health, including drinking water quality and bathing waters.

The Ministry for Emergencies and Affairs of Population Protection from the Consequences of the Chernobyl Catastrophe of Ukraine (Emergency Ministry) implements the governmental policy on preventing and responding to man-made and natural disasters as well as post-emergency measures, treatment of radiological waste, liquidation of consequences of the Chernobyl accident as well as the hydrometeorological and environmental monitoring. The State Hydrometeorological Service of the Emergency Ministry (Goshydromet) conducts climate observation and environmental monitoring and maintains corresponding databases.

The State Committee on Land Resources of Ukraine (Goskomzem) supervises the use, rehabilitation and protection of land and conducts land monitoring.

The Ministry of Agrarian Policy of Ukraine conducts the monitoring of farming lands.

The State Forestry Committee of Ukraine (Goskomleshoz) is involved in preserving the biodiversity of forests, the protection of forests and the sustainable use of forests as well as their monitoring.

2. Multilateral Environmental Agreements and Obligations

Ukraine is a party to 20 international environmental conventions (see Table 1); two more agreements have been signed but not ratified (http://www.unece.org/env/epr/epr_studies/Ukraine%20II.pdf). Ukraine has joined nine protocols to environmental conventions and signed but not ratified six of them.

Table 1. Participation of Ukraine in Multilateral Environmental Agreements and Programmes

No.	Agreement/Programme	Date of ratification (Rt), accession (Ac), approval (Ap), adoption (At) entry into force (EIF)
Global		
1.	UN Framework Convention on Climate Change (New-York, 1992)	13.05.1997 (Rt)
	Kyoto Protocol (Kyoto, 1997)	12.04.2004 (Rt)
2.	Convention for the Protection of the Ozone Layer (Vienna, 1985)	18.06.1986 (At)
	Montreal Protocol on Ozone Depleting Substances (Montreal, 1987)	20.09.1988 (At)
3.	Convention on Persistent Organic Pollutants (Stockholm, 2001)	25.09.2007 (Rt)
4.	Convention on Biological Diversity (Rio-de-Janeiro, 1992)	07.02.1995 (Rt)
	Cartagena Protocol on Biosafety, 2000	06.12.2002 (Ac)
5.	Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal (Basel, 1989)	08.10.1999 (Ac)
6.	Convention to Combat Desertification (Paris, 1994)	27.08.2002 (Ac)
7.	Convention Concerning the Protection of the World Cultural and Natural Heritage (Paris, 1972)	12.10.1988 (Rt)
8.	International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto	25.05.1980 (EIF)
9.	Convention on the Conservation of Antarctic Marine Living Resources (Canberra, 1980)	22.04.1994 (Rt)
10.	Protocol on Environmental Protection to the Antarctic Treaty	24.06.2001 (EIF)

	(Madrid, 1991)	
11.	Convention on International Trade in Endangered Species of Wild Fauna and Flora (Washington, 1973)	29.03.2000 (EIF)
12.	Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar, 1971)	01.12.1991 (EIF)
13.	Convention on the Conservation of Migratory Species of Wild Animals (Bonn, 1979)	01.11.1999 (EIF)
	Agreement on the Conservation of Populations of European Bats	30.09.1999
	Agreement on the Conservation of African-Eurasian Migratory Waterbirds	01.01.2003 (EIF)
	Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic Area	23.10.2003 (Rt)
14.	International Convention for the Regulation of Whaling (Washington, 1946)	
15.	Global Forest Resources Assessment (FAO)	Participates
Regional		
16.	Convention on Long-range Transboundary Air Pollution (Geneva, 1979)	05.06.1980 (Rt)
	Protocol on Long-term Financing of the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP) - 1984	30.08.1985 (At)
	Protocol on the Reduction of the Sulphur Emissions or their Transboundary Fluxes by at least 30 per cent, 1985	02.10.1986 (At)
	Protocol on Limitation of Emissions of Nitrogen Oxides or their Transboundary Fluxes, 1988	24.07.1989 (At)
	Protocol on Limitation of Emissions of Volatile Organic Compounds or their Transboundary Fluxes, 1991	
	Protocol on Further Reduction of Sulphur Emissions, 1994	
	Protocol on Heavy Metals, 1998	
	Protocol on Persistent Organic Pollutants, 1998	
	Protocol to Control Oxidation, Eutrophication and Ground Ozone, 1999	
	International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests (ICP Forests)	Participates
17.	Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki, 1992)	08.10.1999 (Ac)
	Protocol on Water and Health (London, 1999)	26.09.2003 (Rt)
18.	Convention on the Transboundary Effects of Industrial Accidents (Helsinki, 1992)	
19.	Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, 1991)	20.07.1999 (Rt)
	Protocol on Strategic Environmental Assessment (Kiev, 2003)	
20.	Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus, 1998)	18.11.1999 (Rt)
	Protocol on Pollutant Release and Transfer Register (Kiev,	

	2003)	
21.	Convention on the Conservation of European Wildlife and Natural Habitats (Bern, 1979)	01.05.1999 (EIF)
Subregional		
22.	Convention on the Protection of the Black Sea Against Pollution (Black Sea Convention) – Bucharest, 1992.	14.04.1994 (Rt)
	Protocol on the Protection of the Marine Environment of the Black Sea from Land-Based Sources and Activities (1992)	14.04.1994 (Rt)
23.	Framework Convention on the Protection and Sustainable Development of the Carpathians	11.05.2004 (Rt)
	Protocol on Conservation and Sustainable Use of Biological and Landscape Diversity	28.04.2010 (EIF)
24.	Convention on Cooperation for the Protection and Sustainable Use of the Danube River	13.03.2003 (EIF)

Ukraine reports to the Commission of the UN on Sustainable Development and the secretariats of the current multilateral agreements on a regular basis.

In recent years some progress was achieved in implementing the UNFCCC and the Kyoto Protocol, namely, the approval of the National Action Plan on the Kyoto Protocol, the approval of the procedures for development and implementation projects aimed at reducing anthropogenic emissions and on enhanced absorption of greenhouse gases in line with the Kyoto Protocol, approval of the procedures on coordination of measures aimed at meeting the obligations set down in the Kyoto Protocol, founding of the National Agency on Environmental Investments, etc.

The aim of the National Agency of Environmental Investments (NEIA) (<http://neia.gov.ua/nature/control/uk/index>) is to execute the requirements of the UNFCCC and implement the mechanisms of the Kyoto Protocol including establishing and operating the national system for the assessment of the GHG emissions and absorption.

MoEP has created a special website for public information on the implementation of the Kyoto Protocol in national language, English and Russian (<http://www.informkioto.org.ua/main/ua/>).

In 2009, the *Third, Fourth and Fifth National Communications on Climate Change* in Ukraine were prepared (http://unfccc.int/resource/docs/natc/ukr_nc5rev.pdf). In 2010, the *National Inventory Report on Greenhouse Gas Emissions and Removals in Ukraine for 1990-2008* was submitted. Annual national inventories in standard electronic form in the national language and in Russian are placed on the NEIA website <http://www.neia.gov.ua/nature/control/uk/doccatalog/list?currDir=117395>. Information on Kyoto units in standard electronic form in the national language and English is found at the National Electronic Registry of Anthropogenic Emissions and Absorption of Greenhouse Gases of Ukraine (Ukrainian Carbon Unit Registry) website: <http://www.carbonunitregistry.gov.ua/>.

Ukraine submits to the Secretariat of the Convention for the Protection of the Ozone Layer on an annual basis data on the consumption of ozone depleting substances. The last report was submitted for 2009.

During the writing of the present country profile Ukraine has still not submitted to the Convention Secretariat the National Implementation Plan of the Stockholm Convention on Persistent Organic Pollutants, although the deadline for plan submission was 24.12.2009 (<http://chm.pops.int/Countries/National%20Implementation/tabid/253/language/en-US/Default.aspx>).

In 2007, Ukraine submitted the Third National Report on Biodiversity. The Fourth National Report was prepared in 2010. (<http://www.cbd.int/doc/world/md/md-nr-04-en.pdf>). In 2009, the Red and the Green Books of Ukraine were published in the national language; they are available at the MoEP website:

- Red Book of Fauna of Ukraine
(http://www.menr.gov.ua/media/files/Articles/Red_book/Red_book_animals_2009_031209.rar)
- Red Book of Flora of Ukraine
(http://www.menr.gov.ua/media/files/Articles/Red_book/Red_book_plants_2009_031209.rar);
- Green Book of Ukraine
(http://www.menr.gov.ua/media/files/Articles/Green_book/GreenBook281209.rar).

In 2007, the first national report on the implementation of the Cartagena Protocol was prepared (<http://www.cbd.int/doc/world/ua/ua-nr-cpb-01-ru.pdf>).

Ukraine regularly submits national reports on the implementation of the Convention on Transboundary Movements of Hazardous Waste and its Disposal. The Cabinet of Ministers approved the Regulations on transboundary movements of hazardous waste and their disposal, as well as the Yellow and Green Registers of hazardous waste. The last report for 2008 was submitted in 2009.

In 2006, Ukraine submitted the first national report on the implementation of the UN Convention to Combat Desertification (<http://www.unccd.int/cop/reports/centraleu/national/2006/ukraine-rus.pdf>).

In 2009, Ukraine submitted the annual report for 2008 and the Biennial Report 2007/2008 (<http://www.cites.org/common/resources/reports/pab/07-08Ukraine.pdf>) on the implementation of the Convention on International Trade in Endangered Species of Wild Fauna and Flora.

Ukraine regularly submitted annual reports on implementation of the Agreement on the Conservation of Populations of European Bats for 2001-2006. After a two-year break, in 2009, the *National Implementation Report of Ukraine* was prepared. It is available on the EUROBATS website: http://www.eurobats.org/documents/pdf/National_Reports/nat_rep_Ukr_2009.pdf.

In 2007, Ukraine submitted the first National report on implementation of the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic Area. The report is available on the ACCOBAMS website: http://www.accobams.org/index.php?option=com_docman&task=doc_download&gid=85&Itemid=50.

Ukraine prepared the Forest Resources Assessment Country Report according for the FAO Global Forest Resources Assessment 2010. The report is available on the FAO website: <http://www.fao.org/forestry/20262-1-169.pdf>.

Ukraine fulfils obligations under Convention on Long-Range Transboundary Air Pollution and three Protocols to it.

Ukraine participates in the International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests (ICP Forests). ICP Forest National Focal Point for Ukraine is the Laboratory of Forest Monitoring and Certification of the Ukrainian Research Institute of Forestry and Forest Melioration (<http://uriffm.org.ua/>).

In order to meet the obligations set down in the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, Ukraine has signed with neighbours a number of bilateral agreements on the protection of transboundary water resources.

Ukraine has not ratified the Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context. Ukraine is violating its obligations of developing a strategy on the implementation of the Convention requirements and reporting (http://epl.org.ua/fileadmin/user_upload/dodatky_do_sprav/ESPO_Lyst_Bychko_07_04_09.pdf).

In 2005 and 2008, the Ministry of Environment prepared reports on the implementation of the Aarhus Convention in Ukraine and presented them at the 2nd and 3rd meetings of parties to the Convention. (http://www.unece.org/env/documents/2008/pp/mop3/ece_mp_pp_ir_2008_UKR_e.pdf). In December 2008, the Cabinet of Ministers approved the Action Plan for the Implementation of the Aarhus Convention.

In 2003, the Aarhus Information Centre was opened as a step in implementing a Danish project *Assistance to Ukraine in Implementing the Aarhus Convention*. In 2004, MoEP transformed it into the Aarhus Information and Training Centre. The practical side of the Centre activities needs to be improved, especially as far as preparing and publishing on the website of current information is concerned. The information available on <http://www.menr.gov.ua/cgi-bin/go?node=Aarhus> is outdated and incomplete. Most of the pages are empty.

Ukraine is a party to the Black Sea Convention and reports to the Commission on the Protection of the Black Sea against pollution (Black Sea Commission); it also participates in projects of the Black Sea Information System (BSIS) – <http://www.blacksea-commission.org/bsis-description.asp>, and the Black Sea Integrated Monitoring and Assessment Programme (BSMAP) – <http://www.blacksea-commission.org/bsimap.asp>.

The following organisations perform monitoring and reporting:

- Ukrainian Scientific Centre of Ecology of the Sea (UkrSCES), MoEP (<http://www.sea.gov.ua/index.htm.ru>). The UkrSCEM database description is given in Annex I.
- State Ecological Inspection of Azov and Black Seas (SABSI), MoEP
- State Ecological Inspection of Environmental Protection of the Black Sea's North-West region (SEINWRBS), MoEP

- Institute of Biology of the Southern Seas (IBSS), NAS of Ukraine – <http://www.ibss.org.ua>; conducts biological monitoring
- Southern Scientific Research Institute of Marine Fisheries and Oceanography (YugNIRO) – <http://yugniro.crimea.com/>. Reports data on fishery.

The '*Diagnostic Report*' to guide improvements to the regular reporting process on the state of Black Sea Environment submitted to the EEA by the Permanent Secretariat of the Black Sea Commission states that the monitoring programme is annually supported financed from the budget and biological investigations are included, all mandatory parameters are observed, bathing water monitoring is properly performed; it also points out the excellent quality of reported data. The following drawbacks in monitoring and reporting are mentioned in report:

- Recommended frequency of observations are not always observed;
- Contaminants in biota and sediments are not included in the monitoring programme;
- Research Vessels are not in a good state;
- Coastal and Marine stations are not always observed;
- Ecosystem approach to the monitoring organisation is absent; therefore the data can be used only for independent analysis of water quality, biodiversity, fish resources etc.

Main problems include insufficient coordination between responsible organisations, lack of integration and unstable financing assistance.

Several research organizations of Ukraine (UkrSCEM, YugNIRO, the Ukrainian Scientific Research Institute of Ecological Problems, IBSS, the Marine Hydrophysical Institute and others) participate in the FP7 EU funded project *UP-GRADE Black Sea SCENE (2009-2011)* – <http://www.blackseascene.net/> and also in the project *BlackseaWeb* (<http://www.blackseaweb.net/>). The Black Sea Web Project is a joint-project between local partners from the Ukraine, the Russian Federation and Romania and EC-partners from the Netherlands and Denmark. It focuses on strengthening of environmental management in the Black Sea Region. Within the framework of the project, a Demonstrator for a Black Sea Marine Environmental Management Support System, based on Telematics¹ will be developed and evaluated. This Demonstrator might provide a model for future expansion of the system among all countries bounded on the Black Sea. Also it will contribute to the further development of the Black Sea Region state-of-the-art on Informatics and Telematics.

In December 2007, Ukraine, Moldova and Rumania signed a Joint Declaration on cooperation in the field of improving the ecological status of the Danube delta in line with the goals of the Danube Convention and the EU Water Framework Directive.

A strategy on the implementation for the Carpathian Convention was approved by the Ukrainian government as well as a national action plan enacted. Institutions and local administrations have the obligation to implement the Carpathian Convention. Special amendments to the rules of forestry, which limit time and space on the tree cutting in the Carpathians for soil protection have been enacted. The main source for funding for concrete projects is the national environmental fund. Land use is regulated in all parts of the Ukrainian Carpathians and special permits have to be obtained from a respective Ministry, e.g. for building. 300,000 hectares of forests were saved from harvesting due to the Carpathian Convention.

¹ Telematics – the domain integrating means of telecommunication and integrated data processing.

3. Environmental Data Management

Information Management and Reporting

Improvement of the state system of environmental monitoring and statistical data collection in the sphere of protection of the environment in Ukraine took place thanks to the development of national environmental legislation and the necessity of production of the statistical data corresponding to international standards.

Environmental Statistics

According to the Water Code of Ukraine, gathering statistical data on the intake and use of water as well as on the discharge of sewage water is performed on the basis of reports submitted by water users to water management bodies. The reporting form, the filling out procedure as well as the terms of submission have been approved by the State Statistical Committee (Goskomstat) and coordinated with the Gosvodkhoz. Report copies are also to be submitted to the territorial divisions of the MoEP.

Water management bodies supervise the process of filling out of reporting forms and their consolidation within an administrative entity, river basins or economic sectors. Special software “VODGOSP” has been developed by the Gosvodkhoz. The Gosvodkhoz systematically improves the software. In 2005 and 2006 software was developed for the creation of WEB active access to information resources.

The Gosvodkhoz publishes a compilation of major indicators on water resource use in Ukraine. The data serves as a basis for the section on water use in the State Water Cadastre. The Gosvodkhoz is in charge of the Cadastre. The data are also included into the National Report on the State of the Environment in Ukraine and the National Report on Drinking Water Quality and Water Supply in Ukraine.

Data on pollutant emission from stationary and mobile sources are gathered by Goskomstat according to the state statistical form *Report on Protection of ambient air*. Data on emissions from stationary sources is gathered according to production and technological processes as well as by technical installations. This approach is in line with the European practice and allows providing to international organisations detailed data on emissions. Emissions from mobile sources are calculated on the basis of a 2009 methodology. The system of the account of emissions of pollutants from mobile sources covers emissions of 11 chemical substances from motor transport of the population, motor transport of subjects of economic activities, railway, air and water transport, industrial, agricultural, building and other machinery.

In 2010, the methodology on the calculation of pollutant and greenhouse gas emissions as a result of fuel consumption in households was developed.

Data on waste generation, recycling and reuse, and also final waste disposal are collected by Goskomstat according to the state statistical form *Waste management*. Data are gathered on waste of all classes of hazardous by territories and economic activities. In 2010, in order to adapt Ukrainian waste statistics to European standards, a new classification – *Waste categories*, and *Waste disposal and processing* – were introduced. Besides, the form

has information on the number and capacity of installations for the incineration, processing, storing as well as data on the number and capacity of special premises for waste disposal.

Statistical data according the form *Report on municipal waste management*, introduced by the Housing Ministry with the approval of the Goskomstat in 2007, is submitted to local authorities by companies dealing with collection, treatment and disposal of municipal waste. Local authorities forward the consolidated data to the Housing Ministry which publishes them on its website.

Data on natural and biosphere reserves and the number of protected and threatened species is collected according to the state statistical form *Objects of nature reserve fund*. Information on the flora and fauna of national natural reserves for 2010 will be updated according to the changes in the Red and Green Books of Ukraine approved in 2009.

Aggregated statistical data are presented in publications and are available on Goskomstat website <http://www.ukrstat.gov.ua>. Among the major publications is the Statistical Yearbook of Ukraine, a statistical compilation on the environment of Ukraine, thematic statistical bulletins, analytical notes and express editions.

In March 2009, the Supreme Council of Ukraine amended the *Law on State Statistics*. In particular, the status of non-confidentiality was given to primary data provided by respondents during statistical surveys of the state of environment, in particular data on land, water, atmospheric air, plant and animal life, and factors impacting environmental safety and health, except the restrictions established by the legislation.

4. Environmental Monitoring

Currently, different kinds of monitoring are carried out in Ukraine embracing the quality of environment, the state of the natural resources; e.g. land, forests and wildlife as well as emissions and discharges of pollutants. In 2004, the Cabinet of Ministers adopted the *Concept of the State Programme of Environmental Monitoring*. In 2007, the Cabinet of Ministers adopted the *State Target-oriented Environmental Programme of Environmental Monitoring*.

The subjects of State environmental monitoring are as follows: MoEP, Ministry for Emergencies and Population Protection from the Consequences of the Chernobyl Catastrophe, Ministry of Health, Ministry of Agrarian Policy, Ministry of Housing and Public Services, State Committee on Water Management, State Committee on Land and State Committee on Forestry.

An Information and Analysis Centre (IAC) on Environmental Monitoring was set up within MoEP. Information is fed into databases on surface water, marine water, ambient air, soil and biodiversity. Environmental data provided by monitoring divisions of governmental bodies are collected according to approved indicator series determined by the *Guidelines to information exchange*. Texts of these guidelines in the national language are available on the IAC website: <http://www.ecobank.org.ua/GovSystem/InfoCooperation/Pages/Reglament.aspx>. There is ongoing computer-based data exchange between the IAC and regional monitoring centres (27 centres) as well as with monitoring divisions of governmental bodies.

MoEP manages databases on atmosphere, hydrosphere, monitoring equipment and methodology. The databases on atmosphere and hydrosphere contain information on monitoring points for atmosphere and hydrosphere pollutants. Data are visualised by GIS.

The State target-oriented programme on environmental monitoring stipulates the development of a mapping system of nature reserves, territories and sites for regional environmental monitoring. In 2009-2010 digital mapping bases were developed for a territory of 5 regions (oblast).

MoEP is developing a monitoring methodology and the procedure of submitting environmental data by enterprises and organizations whose activity results or can lead to the degradation of the environment.

Ambient Air Quality Monitoring

Ambient air monitoring is performed on the basis of the Goshydromet network in 53 cities at 162 stations. Two stations monitor transboundary transmission of pollutants. The obligatory monitoring programme envisages sampling and monitoring of the state of ambient air by 31 pollutants, four times daily.

In order to ensure the high data quality, a three tier control is performed. The first tier control is performed at the monitoring point; the second and third tiers are an automated control at the Data Processing Centre and the Central methodological centre on meteorological and climatic observations.

In 2010 the construction of a background monitoring station on the Carpathian natural reserve territory began. In 2011 there are plans to create networks of automatic monitoring points for ambient air in the towns of the Donetsk and Dnepropetrovsk regions.

Surface and Ground Water Monitoring

Gathering and aggregating data on hydrological conditions which are formed on the territory of the country, renewable resources of fresh waters is carried out by Goshydromet and Gosvodkhoz. Ground waters are monitored by the State Geological Service. The data are published in the yearbooks published by these services.

The monitoring network of the Goshydromet consists of 240 monitoring points and 373 water abstraction points for monitoring by chemical parameters placed on 151 water objects; 96 monitoring points and 180 water abstraction points for monitoring by biological indicators and chronic annual toxicity, including 38 monitoring points and 38 water abstraction points for monitoring transboundary water pollution.

Gosvodkhoz monitors the quality of surface water at 507 water abstraction points by 25 to 54 chemical indicators. At 268 water abstraction points the content of radionuclides is monitored, at 74 points transboundary watercourses are monitored.

The State Sanitation and Epidemiological Service carries out monitoring of quality of drinking water, conducts supervision over sources of the centralised and non-centralised water supply of drinking water, and also over recreation spots along the rivers and water reservoirs.

The State Sanitation and Epidemiological Service also conducts monitoring of groundwater for drinking water supply.

For the purpose of creating a uniform state network of observation and optimising the existing sectoral monitoring networks, the State register of observation points of surface water is being developed.

Black Sea Water Quality Monitoring

The State Ecological Inspection of the Azov and Black Seas and the State Ecological Inspection of Environmental Protection of Nord-West region of the Black Sea monitor the hydrometeorological parameters, hydrochemical and hydrobiological indicators of Black Sea water quality on the state network of observation points. They also monitor the pollution of in-flowing surface waters. Environmental monitoring is also conducted by the UkrSCES.

Soil Monitoring

Monitoring the soil of arable land is conducted by the Ministry of Agrarian Policy on a network of land plots representing all types of terrain, subsoil surface, land tenure etc. The physical, chemical, biological and physical/chemical parameters are monitored as well as the content of microelements and pollutants. Plant samples are also taken from these land plots.

Goshydromet conducts soil monitoring according to approved programmes which are updated annually. Ultimately, monitoring of soil pollution by pesticide and nitrate residuals should be conducted at 35 enterprises in 34 regions of 17 oblast and the Autonomous Republic of Crimea. Besides, a sampling observation of the impact of industrial toxicants in 17 Ukrainian towns is conducted.

Forest Monitoring

In 2009, the Cabinet of Ministers approved the *Target-oriented Programme on the Forests of Ukraine for 2010-2015*. The Programme stipulates actions for conducting the state inventory of forests. Monitoring results are submitted to regulatory bodies and presented to the public and the international community.

5. National Environmental Internet Portals

Legally binding documents, including the environmental legislation, are available on the Parliament website <http://zakon1.rada.gov.ua/cgi-bin/laws/main.cgi> in the national language.

Executive bodies have their own websites where legal and regulatory acts are placed. MoEP placed its information on <http://www.menr.gov.ua/cgi-bin/go?node=Zakonodavstvo>, where legal acts of the Parliament; the President, the Cabinet of Ministers are placed as well as own ministerial regulations, international legal acts as well as draft laws and regulations. These documents are mostly available in the national language.

The MoEP website <http://www.menr.gov.ua/> is available in the national, English and Russian languages. The English website has only one link to the Department of international

cooperation and European integration with general information on the Department. It also contains information that the new website is under construction. In order to access the site in Russian user registration is required.

The website of the IAC is at <http://www.ecobank.org.ua/Pages/default.aspx>. The site is available in the national language. In the section on the state of environment in Ukraine one can access monthly, quarterly and annual (from 2008) reports submitted by the State Sanitation and Epidemiological Service and other structures. There are no documents in the subsection on national reports. In the section on the regulatory and legal framework there are two active links to subsections on legal framework regulating environmental monitoring and to a search for legal documents on monitoring. On the IAC website there are active links to official websites of governmental bodies responsible for environmental monitoring. The *News* section is updated sporadically. The last news available on the site on September 12, 2010 was dated August 10, 2010.

The website of the UkrSCES is available in the national, English and Russian languages at <http://www.sea.gov.ua/index.htm.en>.

The Emergency Ministry website is available in the national and English languages at <http://www.mns.gov.ua/>.

The website of the Ministry for Health Protection is available in the national language at <http://moz.gov.ua/ua/portal/>.

The website of the Hosing and Public Services Ministry is available in the national language at <http://minjkg.gov.ua/>.

The website of the Ministry of Agrarian Policy is available in the national and English languages at <http://minagro.kiev.ua/>.

The website of the Gosvodkhoz is available in the national language at <http://scwm.gov.ua/>. On the website is placed information on quality of water of sources of drinking water supply, including the monthly information on a qualitative condition of waters in sources of drinking water supply and the quarterly information on quality of surface water in catchment area and transboundary ranges of Desna River.

The website of the Gosleshoz is available in the national, English and Russian languages at <http://dklg.kmu.gov.ua/forest/control/uk/index>.

The website of the Ukrainian Research Institute of Forestry and Forest Melioration is available in the national and English languages at <http://uriffm.org.ua/>.

The website of the Goskomzem is available in the national, English and Russian languages at <http://dkzr.gov.ua/terra/control/uk/index>.

The State Environmental Inspection does not have a website.

The website of Goskomstat is available in the national, English and Russian languages at <http://www.ukrstat.gov.ua/>.

The website of NEIA is available in the national, English and Russian languages at <http://neia.gov.ua/nature/control/uk/index>.

The website of the National Carbon Unit Registry is available in the national and English languages at <http://www.carbonunitsregistry.gov.ua/>. Since July, 2010 this site completely corresponds to the international requirements and recommendations about publicity of the information placed on sites of national registers. Information updating occurs after each transaction. On this website there is detailed information on all projects of joint implementation in Ukraine and more than 350 verificatory monitoring reports and design documents on the Ukrainian projects of joint implementation.

The website of the Ukrainian Hydro and Meteorological Institute of the Academy of Science and the Emergency Ministry is available in the national and English languages at <http://www.uhmi.org.ua/>.

The website of the UkrSCES is available in the national, English and Russian languages at <http://www.sea.gov.ua/index.htm.en>.

The website of the Institute of Biology of the Southern Seas, NAS of Ukraine is available in the Russian and English languages at <http://www.ibss.org.ua>.

The website of the Ukrainian Scientific Research Institute of Ecological Problems, MoEP is available in the national, Russian and English languages at <http://www.niep.kharkov.ua/>.

Most of the websites are updated regularly in the national language, information in other languages is scarce and it is not updated regularly. An exception is the website of the Goskomstat with nearly identical contents in all three languages with a time lag in the “News” amounting to 1 to 2 days due to translation time.

The website of the EU funded regional *Project on Environmental Collaboration for the Black Sea (ECBSea)* carried out in Georgia, Moldova, the Russian Federation and Ukraine is available in the English and Ukrainian languages at <http://www.ecbsea.org/en/>.

6. Environmental Assessments and Use of Environmental Indicators

According to the Law of Ukraine on Environmental Protection, the national environmental report is to be submitted and approved annually. The MoEP is in charge of its preparation, printing and uploading on Internet. However, the legal obligations are not always fulfilled. The 2005 national report was not prepared; the 2006 and 2007 reports were delayed by 1 to 2 years. The printed copies of the reports are limited. There is no information on the publication year in the publications. The national report for 2007 was published in the national and English languages. The national reports for 1996, 1998-2004, 2006 and 2007 are available on the MoEP website <http://www.menr.gov.ua/content/article/6004>.

The regional reports on the state of environment are produced in the Autonomous Republic Crimea, in all regions (oblast) of Ukraine, and also in the cities of Kiev and Sevastopol. The regional reports for following years are accessible on MoEP website:

2006 – <http://www.menr.gov.ua/content/article/6006>

2007 – <http://www.menr.gov.ua/content/article/6007>

2008 – <http://www.menr.gov.ua/content/article/6008>.

The national and regional reports are to a large extent descriptive, they are rather a compilation of reference documents than an analytical study on the state of the environment. The reports are not used for the development of policies or decision-making.

The application of internationally agreed indicators has not been set down in the legislation. In reports, limited use of some elements of the internationally accepted indicator presentation format is made, namely the calculation of indicators and the presentation of the results as tables or graphs. The analytical part is absent.

Since 2007, MoEP has been producing monthly and quarterly the information and analytical reports on the state of environment in Ukraine in the national language. The reports are published in hard copies and placed on the IAC website <http://www.ecobank.org.ua/GovSystem/EnvironmentState/Reviews/Pages/default.aspx>.

All regions of Ukraine produce monthly and quarterly information and analytical reports on the state of environment. The reports for 2008-2010 are available in the national language on the IAC website <http://www.ecobank.org.ua/state/Pages/EnvRegState.aspx>.

In 2009, the *National report on the quality of drinking water and the state of drinking water supply in Ukraine in 2008* was published (<http://www.minjkg.gov.ua/about/branch/branch-vv/576-nacionalna-dopovid-pro-yakist-pitnoyi-vodi-ta.html>) and in 2010 – *National report on the state of technogenic and environmental safety in Ukraine in 2009* (http://www.mns.gov.ua/content/annual_report_2009.html) was published.

In 2010, the *Report on the state of nuclear and radiation safety in Ukraine in 2009* was published by the State Committee of the Nuclear Regulation of Ukraine. The Report is available in the national, English and Russian languages (<http://www.snrc.gov.ua/nuclear/doccatalog/document?id=132443>). Similar report has been produced annually in the national and English languages since 1998, and since 2006 also in Russian (http://www.snrc.gov.ua/nuclear/uk/publish/article/132445?search_param=%D0%94%D0%BE%D0%BA%D0%BB%D0%B0%D0%B4&searchForum=1&searchDocarch=1&searchPublishing=1).

The *National Report on the State of Environment in Ukraine in 2007* (http://www.menr.gov.ua/media/files/1_NacDopovid_2007_280110.rar) includes the following main chapters and subchapters:

1. Atmospheric air pollution and ozone layer depletion
 - 1.1. Emissions into the atmospheric air
 - 1.2. Transboundary pollution of atmospheric air
 - 1.3. Ambient air quality in urban areas
 - 1.4. Use of the ozone depleting substances
 - 1.5. Impact of the ambient air quality on the human health and biodiversity
 - 1.6. Measures on the improvement of quality of atmospheric air
2. Climate change

- 2.1. Policy and measures on limitation and reduction of emissions of greenhouse gases and increase their absorption
- 2.2. National system of the greenhouse gases inventory
- 2.3. Prognosis for greenhouse gases emissions
- 2.4. Climate change mitigation and adaptation measures
3. Water resources
 - 3.1. State of surface and marine waters
 - 3.2. Water uptake and use, recycling of fresh waters, discharge of pollutants into water bodies
 - 3.3. Water quality assessment according to hydrochemical indexes
 - 3.4. Hydrobiological assessment of the water quality and the state of hydrobiocenoses
 - 3.5. Microbiological assessment of quality of water from the point of view of epidemiological situation
 - 3.6. Surface water contamination
 - 3.7. State of radiation contamination of surface water
 - 3.8. Impact of drinking water quality on human health
 - 3.9. State of environment of the Azov and Black Seas
 - 3.10. Measures for the improvement of the state of water bodies
4. Conservation of biodiversity, development of ecological networks and maintenance of nature protection territories
 - 4.1. Measures on conservation of biodiversity and development of ecological networks
 - 4.2. Protection, use and restoration of vegetable world
 - 4.3. Protection, use and rehabilitation of wild animals
 - 4.4. Biosafety of genetically modified organisms
 - 4.5. Especially protected natural territories
5. Land resources and soil
6. Bowels of the earth
7. Waste
 - 7.1. Structure of generation and accumulation of waste
 - 7.2. waste management
 - 7.3. Reuse and recycling of waste
 - 7.4. Transboundary movement of waste
8. Environmental safety
9. Agriculture
10. Energy
11. Transport.

The report contains data or results of indicators calculation (mainly as tables or text) on following environmental indicators from the *UNECE Guidelines for the Application of Environmental Indicators the Eastern Europe, Caucasus and Central Asia*: emissions and absorption of greenhouse gases and prognosis for emissions and absorption of greenhouse gases for 2010; total volume of surface and ground fresh water abstraction; share of samples failing drinking water quality standards in the total number of drinking water samples; total amount of generated waste in the country; waste reuse and recycling; amount of mineral and organic fertilisers used per unit of arable land; use of pesticides per unit of agricultural land; energy intensity of GDP in terms of final energy consumption, and others.

7. Identification and Analysis of Gaps and Bottlenecks

National environmental reports in Ukraine are produced irregularly and with delay, they are largely descriptive and are not used for policy development or for decision-making. The reports are published in a limited number of copies.

The application of internationally agreed environmental indicators has not been set down in the legislation. The reports contain only some elements of the internationally accepted format of development and presentation of environmental indicators, i.e. indicator calculation and presentation of the result of indicator calculation in a table or graph format. There is no assessment part.

In the near future Ukraine has to make a broader use of environmental indicators identified in the *UNECE Guidelines for the Application of Environmental Indicators the Eastern Europe, Caucasus and Central Asia* in national reporting and other assessment documents. The reports should be based on environmental indicators and this requires regular data flows in all the major fields of environmental and economic research.

Web interfaces used do not give access to real time data, there are no applications allowing for computer-based and standardised collection of data and their verification.

The data base “SeaBase” of the UkrSCEM

Source: UkrSCEM website (<http://www.sea.gov.ua/index.htm.ru>).

UkrSCEM is located in Odessa.

“SeaBase” was created on the MS SQL Server 2003 platform. The total number of parameters in the data base is 279.

To have right to access to the resources of data base, it is necessary to submit a request in the department of the information support of scientific researches of UkrSCEM. The request form is placed on the website. It is possible to submit the request in an electronic format. The form of electronic request is also available on website.

The structure of the database is presented in 22 tables covering the following:

- General information on stations;
- General meteorological information;
- Hydrology and Hydrochemistry;
- Geology;
- Pollutants in bottom sediments;
- Pollutants in water;
- Content of metals in water;
- Content of metals in bottom sediments;
- Polycyclic aromatic hydrocarbons in water;
- Polycyclic aromatic hydrocarbons in bottom sediments;
- Chlororganic hydrocarbons in water;
- Chlororganic hydrocarbons in bottom sediments and in biota;
- Radioactive elements in water;
- Radioactive elements in bottom sediments;
- Macrozoobenthos;
- Phytoplankton;
- Zooplankton;
- Photosynthetic pigments;
- Meiobenthos;
- Microphytobenthos;
- Methodologies.