

**EUROPEAN NEIGHBOURHOOD AND PARTNERSHIP INSTRUMENT –
SHARED ENVIRONMENTAL INFORMATION SYSTEM**

RUSSIAN FEDERATION COUNTRY REPORT



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SUMMARY

The decision to carry out a regular state of the environment assessment process and develop the shared environmental information system (SEIS) in certain regions has been made as a part of the declaration from the Seventh “Environment for Europe” Ministerial Conference. This process envisages strengthening the capacity of countries in the region to monitor and assess the state of the environment.

The overall goal of the ENPI-SEIS project is assistance in the protection of the environment in the partner countries.

Specific goals include introduction to the environmental indicators used in the country and their further development, capacity building in the field of monitoring, collection, storage, assessment and presentation of data on the environment, assistance in the establishment of national and regional environmental information systems according to the SEIS principles, improvement of the state of the environment analysis at the national and regional levels with unified tools and methodological approaches; strengthening of institutional interaction at the national level; training of experts in all SEIS components; and improvement of cooperation and partnership with regional and international bodies.

It is expected that SEIS project would provide a series of benefits to partner countries including simplified collection as well as more integrated, flexible and wider application of data; improvement of information processing; increased efficiency of data flows; ensuring wide accessibility of data.

In November 2010, during the first meeting of the Steering Committee, the European Neighbourhood countries of the eastern region and the Russian Federation agreed on the priority themes to be considered in the initial stage of the project. Russian Federation nominated and agreed on the following areas as its priorities: quality and quantity of water, especially of fresh water bodies (with the Black Sea being the first marine body), municipal household waste, as well as emissions of harmful substances into the air, climate change and air quality.

Along with that, the priorities of Russian Federation include such areas of environmental activity as biodiversity conservation, development of specially protected natural sites, and use of pesticides.

This report describes the current institutional cooperation in the Russian Federation in the spheres of the protection and use of water resources, protection of air, soil, biodiversity, the management of industrial and consumption waste, assessment of the existing interagency cooperation in the priority areas. The report also defines the potential of the country for SEIS implementation.

Chapter 1 of the report presents the current management of nature protection activity in the Russian Federation. Also it describes interaction between its associated federal executive bodies, the Ministry of Natural Resources and Environment of the Russian Federation and other federal executive bodies.

Chapter 2 is devoted to the state environmental monitoring system (state ecological monitoring) operating in the country. This chapter provides information about the structure of state monitoring elements, programs of implementation and protocols of interaction between the various federal executive bodies responsible for the implementation of different aspects of monitoring. In this chapter, strengths and weaknesses of elements of the state environmental monitoring system are analyzed and references are made to websites where sources of information and data on environmental monitoring could be found.

Chapter 3 provides information on how sources of anthropogenic impact on the state of environment are recorded (emission of pollutants into the air, discharge of polluted sewage waters into water bodies, management of industrial and consumption waste and household waste).

Chapter 4 is devoted to the participation of the Russian Federation in international, global, regional and sub-regional conventions and agreements and the implementation of obligations to provide information that arise from participation in these agreements. The chapter also covers the terms and volume of reporting requirements to international bodies, the condition of joining conventions and agreements that have not been ratified by the country in the past.

Chapter 5 considers the environmental information resources available in the country, including the development of various state level and agency reports on the state and protection of the environment, statistical publications and materials, as well as available data funds and operating environmental information portals and Internet resources. The application of environmental indicators developed at the international level for nature protection reports and publications is considered as a separate issue.

Chapter 6 describes the interest of the Russian Federation to cooperate with SEIS project and presents the new Federal Law № 331-FZ as of 21.11.2011 “On Introduction of Changes to the Federal Law “On Environmental Protection” and certain legislative acts of the Russian Federation” that unites 14 current various subsystems of environmental monitoring into a unified system of state ecological monitoring that is being established.

This law also establishes the State Data Fund of the State Environmental Monitoring. This is the federal information system that ensures collection, processing and analysis of data, defines the order of information exchange within the unified system of state ecological monitoring and states that information to state power bodies, local self-governance bodies, legal entities, individual entrepreneurs and citizens is provided free of charge.

1. THE STRUCTURE OF NATURE PROTECTION MANAGEMENT IN THE RUSSIAN FEDERATION

The Ministry of Natural Resources and Environment of Russian Federation (Minprirody of Russia) is the federal executive authority performing functions of state policy formulation and statutory regulation in the field of nature resource management, protection and monitoring of the environment, as well as ecological safety. The Minprirody of Russia develops draft federal constitutional laws, federal laws and acts of the President of the Russian Federation and Government of the Russian Federation and presents them to the Government of the Russian Federation on issues including:

- Use and conservation of water bodies;
- Conservation, use and renewal of fauna and their habitats;
- Protection of the environment and provision of ecological safety;
- Protection of atmospheric air;
- Management of industrial and consumption waste (except for radioactive waste);
- Improvement of economic mechanism that regulates natural resource management and protection of the environment.

The structural subdivisions that define areas of environmental policy include:

- **Department of State Policy and Regulation in the Sphere of Environmental Protection and Ecological Safety.** The main tasks of the Department include participation in the development of state policy and statutory regulation in the sphere of protection of the environment, protection of atmospheric air and water bodies; management of industrial and consumption waste (except for radioactive waste), state environmental expertise, specially protected natural areas;
- **Department of State Policy and Regulation in the Sphere of Hydrometeorology and Environmental Monitoring.** The main tasks of the Department are participation in the formulation of the state policy and statutory regulation including monitoring of the natural environment, its pollution, radiation control and monitoring;
- **Department of State Policy and Regulation in the Sphere of Water Relations,** the main task of which is participation in the state policy formulation and normative and legal regulation in the area of water resources use and conservation;
- **Department of State Policy and Regulation in the Sphere of Hunting and Wildlife** that is responsible for conservation, use and renewal of fauna and their habitats.

Minprirody of Russia is also in charge of the following federal executive bodies that perform the functions related to the protection of the environment (its components), collection and dissemination of the corresponding information:

- The Federal Service for Hydrometeorology and Environmental Monitoring (Roshydromet);
- The Federal Supervisory Natural Resources Management Service (Rosprirodnadzor);
- The Federal Water Resources Agency (Rosvodresursy).

The Federal Service for Hydrometeorology and Environmental Monitoring (Roshydromet) is the federal executive body performing functions on the provision of state services in the sphere of hydrometeorology and related fields, monitoring of the environment and its pollution.

Within its competence Roshydromet undertakes:

- State accounting of surface waters and keeping the state water cadaster of surface water bodies;
- Keeping the unified state data fund on the state of the environment and its pollution;
- Formation and ensuring the operation of the state monitoring network, including organization and cessation of activity of the stationary and mobile monitoring sites, identification of their location;
- State monitoring of atmospheric air;
- State monitoring of water objects with regard to surface water bodies;
- State monitoring of continental shelf and state of the exclusive economic zone of the Russian Federation;

- State monitoring of soil pollution;
- Supplying information to users (consumers) about the structure of data provided on the state of the environment, its pollution, the forms in which the information is given and organizations that provide information;
- Provision of emergency information about natural hazards, factual and predicted drastic weather changes and pollution of the environment that could bear a threat to the life and health of the population and damage the environment.

The Federal Supervisory Natural Resources Management Service (Rosprirodnadzor) is the federal executive body that performs functions of state control/supervision in the field of natural resource management, as well as protection of the environment.

Rosprirodnadzor exercises control in the sphere of:

- Conservation, use and reproduction of fauna that are found at the specially protected natural sites of federal importance, as well as their habitat;
- Organization and operation of specially protected natural sites of federal importance;
- Use and conservation of water bodies;
- Compliance with the legislation of the Russian Federation and international norms and standards in the field of marine environment and natural resources of internal marine waters, territorial sea, in the exclusive economic zone and the continental shelf;
- Compliance with the requirements of the Russian Federation in the sphere of environment protection, including protection of atmospheric air and waste treatment (excluding radioactive waste);
- Usage, conservation, protection and reproduction of forests at specially protected natural sites of federal significance.

The Federal Water Resources Agency (Rosvodresursy) is the federal executive body with the functions to provide state services in the sphere of water resources.

Rosvodresursy is responsible for:

- Ensuring the development and implementation of measures to prevent pollution and depletion of waters, realization of measures to eliminate the consequences of these phenomena;
- State monitoring of water bodies and its organization;
- Development of automated system to collect, process, analyze, store and provide information about the state of water bodies, water resources, regime, quality and use of waters in the Russian Federation as a whole, its individual regions and river basins.

Apart from the Ministry of Natural Resources and Environment of the Russian Federation and its associated federal executive bodies, some other executive authorities are entitled with the powers related to the protection of the environment and natural resources.

Federal Service on Customers' Rights Protection and Human Well-Being Surveillance (Rospotrebnadzor) is under jurisdiction of the Ministry of Healthcare and Social Development of the Russian Federation (Minzdravsotzrazvitiya of Russia). It supervises and controls implementation of the compulsory requirements of the legislation of Russian Federation as to the sanitary and epidemiological wellbeing of population, including the drinking water quality according to the sanitary, hygienic and microbiological indicators, quality of water in recreational zones, as well as control of air quality in the production and residential buildings. Rospotrebnadzor is endowed with the function to approve maximally permissible concentrations of pollutants in the atmospheric air, soil, surface and marine waters according to the sanitary and hygienic indicators.

Federal Service for State Registration, Cadaster and Cartography (Rosreestr) that accounts to the Ministry of Economic Development of the Russian Federation (Mineconomrazvitiya of Russia) keeps the state cadaster of real estate, ensures the management of land resources and exercises state control over the use and protection of lands.

The Federal Service for Veterinary and Fito-Sanitary Supervision (Rosselkhoznadzor) that is part of the Ministry of Agriculture of the Russian Federation (Minselhoz of Russia) implements measures for conservation and restoration of fertility of agricultural lands.

Federal Forestry Agency (Rosleshoz) determines organization of forest pathology monitoring, organizes and provide the monitoring in forests located on the territory of the forest fund, defines the monitoring order of fire hazard in forests and forest fires, as well as the composition and presentation of data on fire hazard in forest and forest fires.

Table 1. Collection and storage of environmental information: responsibility of the federal agencies of the Russian Federation

| | MNR | SNR | FA | FM | STAT | SES | SUB | WAT | AG | OTHER |
|--|-----|-----|----|----|------|-----|-----|-----|----|-------|
| Atmospheric air and climate change | ■ | ■ | ■ | ■ | ■ | ■ | | | | ■ |
| Water resources and water quality | ■ | | | ■ | ■ | ■ | ■ | ■ | | ■ |
| Land and soil pollution | ■ | | | ■ | ■ | ■ | | | ■ | ■ |
| Waste | ■ | ■ | | | ■ | | | | | ■ |
| Radiation situation | ■ | | | ■ | | ■ | | | | ■ |
| Forests, bio resources, biodiversity, specially protected nature territories | ■ | | ■ | | ■ | | | | | ■ |
| Nature protection expenditure and events | ■ | | | | ■ | | | | | ■ |

Abbreviations in the table:

MNR – Ministry of Natural Resources and Ecology

SNR – Federal Supervisory Natural Resources Management Service

FA – Federal Forestry Agency

HM – Federal Service for Hydrometeorology and Environmental Monitoring

STAT –Federal State Statistics Service

SES – Federal Service on Customer’s Rights Protection and Human Well-Being Surveillance

SUB – Federal Agency for Subsoil Usage

WAT – Federal Water Resources Agency

AGR – Ministry of Agriculture

- Chief Agency and
- Other engaged agencies

2. STATE ECOLOGICAL MONITORING

According to the provisions of the Federal Law №7-FZ as of 10.01.2002 “On the Protection of the Environment” in the edition that takes into account amendments made by the Federal Law № 331-FZ as of 21.11.2011 “On Introduction of Changes to the Federal Law “On the Protection of the Environment” and some legal acts of Russian Federation”, state ecological monitoring (state monitoring of the environment) is carried out within a unified system of state ecological monitoring (state monitoring of the environment) by federal executive bodies, state power bodies of subjects of the Russian Federation within their competence set by the legislation of the Russian Federation through the establishment and operation of the monitoring networks and information resources within the sub-system of a unified system of the state ecological monitoring (state monitoring of the environment), as well as the establishment and exploitation of the state data fund by the federal executive body empowered by the Government of the Russian Federation.

At present, the state ecological monitoring is carried out according to the Resolution of the Government of the Russian Federation № 177 as of 31.03.2003 “On Organization and Implementation of the State Monitoring of the Environment (state environmental monitoring)”. As the Federal Law № 331-FZ as of 21.11.2011 “On Introduction of Changes to the Federal Law “On Environmental Protection” and certain other legislative acts of the Russian Federation” has been adopted the order that regulates interaction of state federal bodies in this sphere should be revised.

The goal of the establishment of the state unified ecological monitoring system is provision of environmental protection; with the main tasks being - regular monitoring of the state of the environment, systematization and analysis of information about the state of the environment, assessment and prediction of changes; provision of information about the state of the environment to state power bodies, local self-governance bodies, legal entities, individual entrepreneurs and citizens.

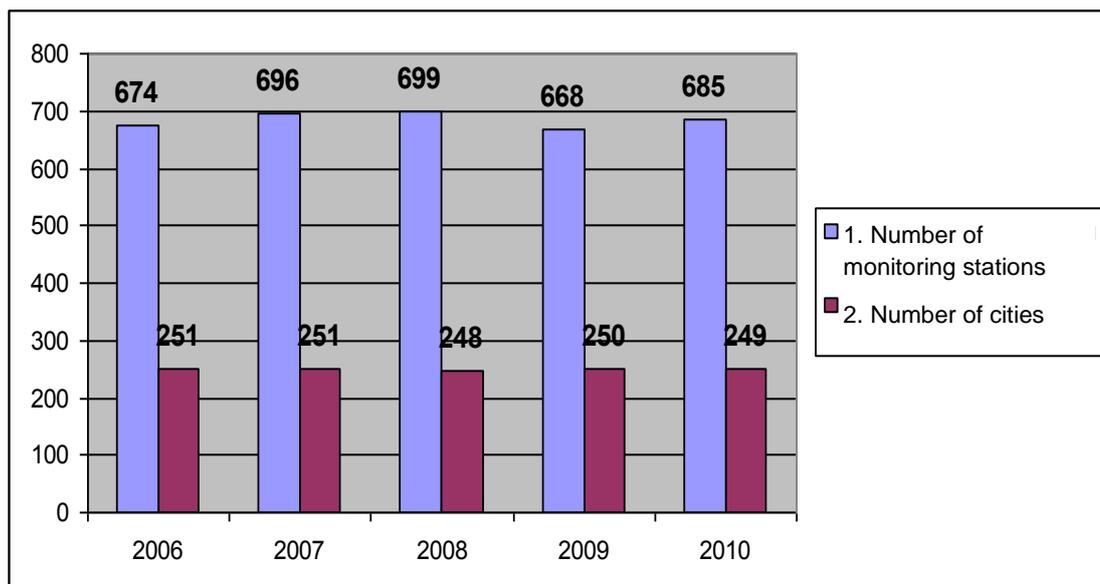
State monitoring network (network of Roshydromet, federal executive body) of the environment is based on the network of monitoring sites that are located in cities, water bodies and water courses, in areas with high anthropogenic impact and in non-polluted areas. Stations that monitor pollution of the environment are presented in Figure 2.

The state network of environment monitoring controls the following:

- Pollution of atmospheric air in cities and industrial centres;
- Pollution of soils with pesticides and toxicants of industrial origin;
- Pollution of inland surface waters according to hydrochemical and microbiological parameters;
- Pollution of the marine environment according to the hydrochemical parameters;
- Transboundary pollutants transport;
- Integrated pollution of the environment and state of flora;
- Chemical composition and acidity of atmospheric precipitation;
- Snow cover pollution;
- Background pollution of the environment;
- Radioactive pollution of the environment.

2.1. Atmospheric air

In 2010, regular monitoring of atmospheric air quality in the Russian Federation was carried out in 249 cities and populated areas at 685 stationary points. Samples were taken three times a day at 8-hour intervals. The monitoring is conducted by territorial bodies of Roshydromet (90%) and Rospotrebnadzor (10%). Change in the number of cities and monitoring points over the last five years is presented in Figure 1.



**Figure 1. Number of cities covered by monitoring of air pollution (1).
Number of stations for monitoring of air pollution in cities (2).**

The state monitoring network **does not measure** solid particles of 2.5 and 10 micron in diameter or concentration of ground-level ozone on a regular basis. In view of the preparation for hosting 2014 Winter Olympic Games in Sochi, a system of integrated environmental monitoring of Sochi National Park and adjacent territories has been created to date. The system includes 6 automated stations and 1 automated air control point with continuous measurement of up to 12 indicators (including solid particles of 10 and 2.5 micron in diameter, and ground-level ozone). Data on the quality of atmospheric air from the state monitoring network are presented in the annual reports 'State and Protection of the Environment in the Russian Federation' that are published on the website of the Ministry of Natural Resources and Environment of the Russian Federation (www.mnr.gov.ru/part/?pid=776); in 'Reviews of the State of the Environment and Environmental Pollution in the Russian Federation' published on the website of Roshydromet (<http://www.meteorf.ru>); in 'Annual Reports on the State of Atmospheric Air Pollution in Cities of Russia' posted on the website of A.I. Voeykov Main Geophysical Observatory of Roshydromet (<http://voeikovmgo.ru>). All data are published in Russian.

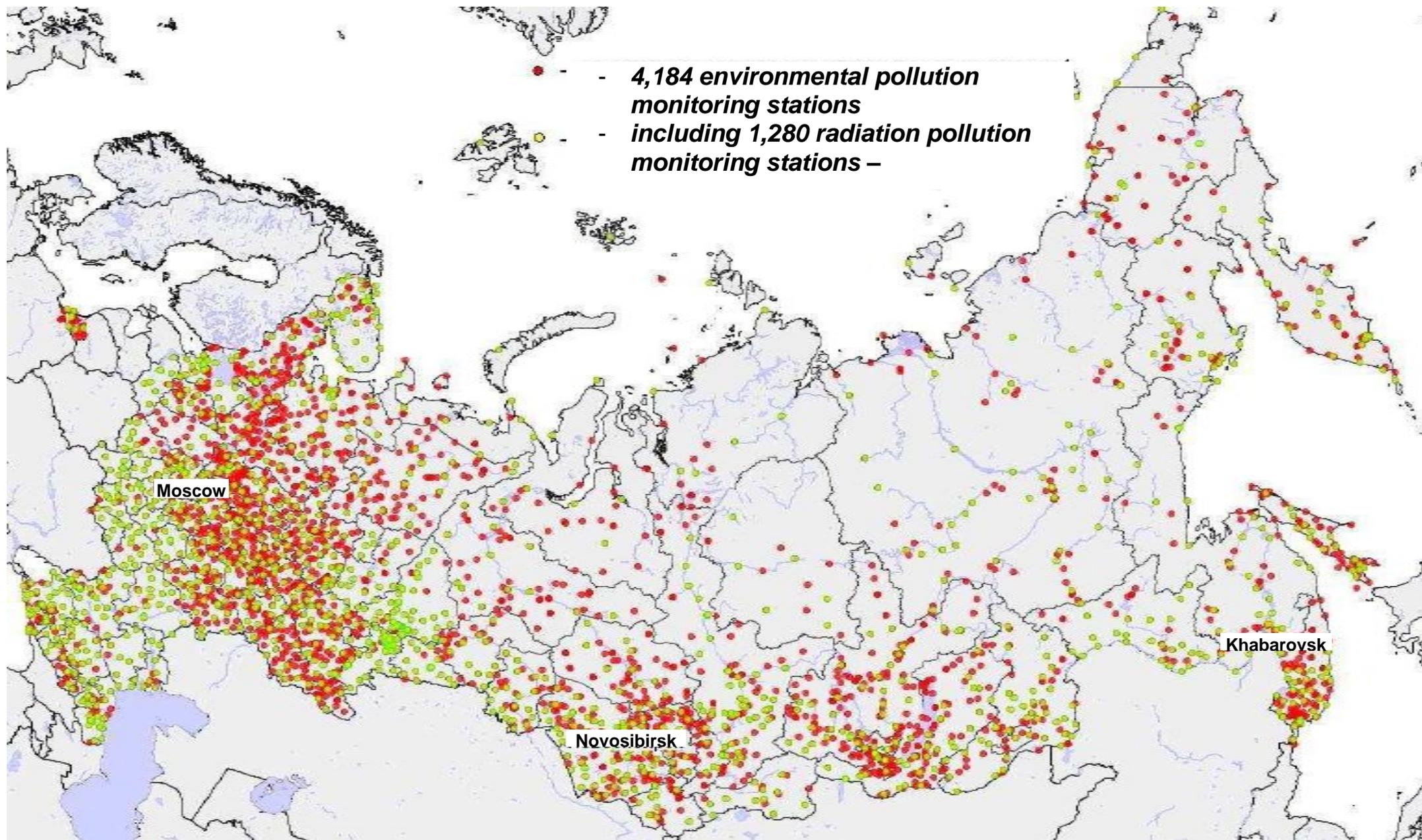


Figure 2. The State Environmental Pollution Monitoring Network

Apart from the state air pollution monitoring network, territorial monitoring systems have been established and operate on the territory of some constituent entities of the Russian Federation (Moscow, Saint Petersburg and Sverdlovskaya Oblast). They are much better equipped technically, exploit automated stations for continuous measurement of pollutants and use modern analysis methods (37 stations in Moscow, 21 stations – Saint-Petersburg, 1 station in 10 cities of Sverdlovsk Oblast). All these stations measure solid particles 10 micron in diameter, some stations – 2,5 micron in diameter. Concentration of the ground-level ozone is measured at some of the above mentioned stations.

Within the framework of the Co-operative Program for Monitoring and Evaluation of the Long Range Transmission of Air Pollutants in Europe (EMEP) implemented within the framework of UNECE Convention on Long-range Transboundary Air Pollution, the Meteorological Synthesizing Centre – East located in Moscow together with Meteorological Synthesizing Centre – West based in Oslo calculate the fallout of the following pollutants within the European part of Russia: oxidized sulphur, oxidized and deoxidized nitrogen, lead, cadmium, mercury, polychlorinated dibenzoparadoxines and furans. Furthermore, these centers calculate release of the above pollutants 'country on country'. The indicated information is contained in the annual reports 'State and Protection of the Environment in the Russian Federation' published on the website of the Ministry of Natural Resources and Environment of the Russian Federation (www.mnr.gov.ru/part/?pid=776).

The network of monitoring stations for atmospheric transboundary transfer of pollutants includes 4 stations in the European part of Russia (EMEP Program) and 4 stations in the Asian part of Russia (EANET Program). Within the framework of EMEP Program, samples of atmospheric aerosols, gases (nitrogen dioxide and sulphur dioxide) and atmospheric precipitation are collected and analyzed. Samples of atmospheric air and precipitation are collected and analysis of main acid-causing substances are made in the EANET Program. Observation data of the atmospheric transboundary transfer of pollutants is presented in 'Reviews of the State of the Environment and Environmental Pollution in the Russian Federation' published on the website of Roshydromet (<http://www.meteorf.ru>):

2.2. Soils

Compared to air and water, soil is a more conservative environment and its self-purification process is very slow. That is why pollutants that penetrate into soil can stay there for a long period, hence monitoring results of soil contamination with toxicants of industrial origin remain valid for several years. In the Russian Federation, there are two types of soil contamination monitoring. The first one is monitoring the content of organochlorine pesticides in agricultural soils and forest soils. The second one is monitoring the content of industrial toxicants in soils.

Monitoring network of soil contamination with pesticides is located on agricultural lands, in some forest areas, recreation areas and coastal territories. Soil samples are collected at farms located on the territory of 38 constituent entities of the Russian Federation. The collected samples are analyzed with regard to 24 sorts of pesticides and their metabolites.

Monitoring of soil contamination with heavy metals (HM) is mainly done in areas where sources of industrial emissions of such pollutants into the atmosphere are located. The source of pollution can be one enterprise, a group of enterprises or the city in general. In the first case monitoring is conducted in areas where enterprises of ferrous and non-ferrous industry, energy sector, machine building and metalworking, chemical and petrochemical industry and enterprises producing construction materials are located. Weight fractions of aluminium, vanadium, iron, cadmium, cobalt, manganese, copper, molybdenum, nickel, tin, lead, mercury, chrome, zinc and other elements in soil in various forms are measured in soils. Overall up to 25 elements of industrial origin are identified. To assess soil contamination with heavy metals, samples are taken in 66 cities annually and in 101 cities and their neighborhoods every five years.

Stations that monitor soil contamination with pesticides are located on agricultural lands, in some forest areas, recreation areas and territories adjacent to pesticide storage and disposal sites. Every year samples are taken on the territory of 40 constituent entities of the Russian Federation. The collected samples are analyzed with regard to 24 sorts of pesticides and their metabolites.

Samples are taken at 45-53 monitoring points every year to assess soil contamination with heavy metals. Monitoring of weight fraction of oil and oil products in soil and dynamics of their change is conducted at the sites of the most probably impact pollution (next to their extraction, transportation, processing and distribution) and in populated areas. Monitoring of soil contamination with nitrates, sulphates, benzopyrene is conducted in areas characterized by these pollutants.

Monitoring results of soil contamination with pesticides and toxicants of industrial origin are published in annual reports 'State and Protection of the Environment in the Russian Federation' published on the website of the Ministry of Natural Resources and Environment of the Russian Federation (www.mnr.gov.ru/part/?pid=776), and on the website of Research and Production Association 'Typhoon' of Roshydromet (<http://www.typhon.obninsk.ru>) in 'Annual Reports on Soil Contamination with Toxicants of Industrial Origin' and in 'Annual Reports on Monitoring of Pesticides in Natural Environment Objects of the Russian Federation'.

2.3. Water bodies

2.3.1. Inland surface water

Monitoring of inland surface water contamination with regard to hydrochemical indicators covers 1,187 water bodies where 1,816 monitoring points are located (2,488 gauge lines, 2,819 gauge points, 3,251 horizons). The number of measured elements is different for various gauge lines depending on the nature and natural condition of water body, its commercial purpose, composition and quantity of discharged wastewater etc. However, visual inspections, composition of measured hydrological and hydrochemical parameters such as flow velocity and water discharge rate, water level, ionic composition, oxygen dissolved in water and other elements are compulsory. Altogether, concentration of 124 elements (including those obtained by calculation) is measured in water of rivers, ponds and lakes.

Monitoring points are divided into four categories depending on their location and characteristic of water body contamination. The category of the point determines the type of the monitoring program, frequency and time of monitoring, as well as composition of monitored elements. Monitoring at first category points located in the areas with the highest man-caused impact, as a rule near the coast line, is carried out every day at the gauge line located downstream of the waste water discharge point according to the minimally abridged program including measurement of water temperature, electrical conductivity and oxygen dissolved in water. In other gauge lines, monitoring is made every ten days or once per month under the abridged programs including expanded list of monitored elements and under full program during the main phases of hydrological regime (MHP) of the water body. Monitoring in the second category points that experience significant anthropogenic impact is conducted every 10 days according to the minimal program every month – according to the extended abridged program and during MHP – full program. Monitoring at the third category points with minor anthropogenic impact is conducted every month according to the abridged extended program and during the main phases of hydrological regime according to the full monitoring program. Monitoring at the fourth category points with minimal or zero anthropogenic impact is carried out during the main phases of hydrological regime (in spring, summer, winter and autumn) according to the full program. Monitoring of inland surface water contamination with regard to hydrobiological indicators is carried out in five hydrographic districts at 123 water bodies by means of 284 monitoring points/stations. The monitoring program includes 2 to 6 indicators. Information about the quality of inland surface water is presented in the annual reports 'State and Protection of the Environment of the Russian Federation' published on the website of the Ministry of Natural Resources and Environment of the Russian Federation (www.mnr.gov.ru/part/?pid=776), in 'Reviews of the State of the Environment and Environmental Pollution in the Russian Federation' published on the website of Roshydromet (<http://www.meteorf.ru>).

The quality of transboundary surface water bodies is assessed on the basis of monitoring observations at 65 points. Observation points are located at 53 water bodies on the border of Russia with neighboring states: Norway, Finland, Estonia, Lithuania, Poland, Belarus, Ukraine, Georgia, Azerbaijan, Kazakhstan, Mongolia, and China. Monitoring at transboundary water bodies is mainly conducted in line with the agreements between the Government of the Russian Federation and the governments of the neighboring states on the joint use and protection of

transboundary water bodies. The transboundary water control sections monitor the most characteristic pollutants for various water bodies.

In addition to the territorial bodies of Roshydromet, monitoring of the state of water objects is conducted by the bodies of Rosvodresursy and bodies of Rospotrebnadzor control the quality of drinking water according to the sanitary, hygienic and microbiological parameters as well as water quality in recreational zones.

State monitoring of water objects conducted within the system of Rosvodresursy consists of the following: monitoring of surface water bodies, monitoring of ground water bodies, monitoring of water systems and facilities, monitoring of the state of bottom and coasts of water objects as well as the state of water protection zones. State monitoring of water objects and observations over water systems, including hydrotechnical facilities, is provided by Roshydromet. State monitoring of water objects is carried out within the boundaries of basin okrugs considering peculiarities of the regime of water objects, their physical, geographical, morphometric and other features. In 2010 as part of the state monitoring of water objects organizations of Rosvodresursy and contractors controlled water quality in water objects at 844 gauges of hydro chemical observations located within activity zone of Basin Water Agencies.

2.3.2. Marine water

Monitoring of the marine environment pollution with regard to hydrochemical indicators is carried out at 322 stations in coastal areas of 11 seas washing the territory of the Russian Federation. The level of marine water and bottom sediment pollution is analyzed. Up to 24 elements are identified in the collected samples. The monitoring system of marine environment quality is structured according to the principle of inland waters quality monitoring.

Data about the quality of marine waters is presented in annual reports 'State and Protection of the Environment of the Russian Federation' published on the website of the Ministry of Natural Resources and Environment of the Russian Federation (www.mnr.gov.ru/part/?pid=776), in 'Reviews of the State of the Environment and Environmental Pollution of the Russian Federation' published on the website of Roshydromet (<http://www.meteorf.ru>) as well as in 'Annual Report on the Quality of Marine Waters for Hydrochemical Indicators' published on the website of the State Oceanography Institute of Roshydromet (<http://www.oceanography.ru>).

2.3.3. Ground waters

According to the data of state subsoil resources monitoring more than 6 206 areas of ground waters pollution have been identified. At that, more than 70% of contaminated areas have been identified in water bearing horizons that are not sources of drinking water supply for the population. According to the expert estimates, in general the share of contaminated ground waters in the Russian Federation does not exceed 5–6% of the total value of their use for drinking water supply to people. The main pollutants of ground waters are nitrogen compounds (nitrates, nitrites, and ammonium nitrogen), oil products, sulphates, chlorides, heavy metals (copper, zinc, lead, cadmium, cobalt, nickel, mercury or antimony), and phenols. As a rule, sanitary protection areas are organized at large ground water intakes that are managed by housing and utility departments of cities. Within the borders of such sanitary protection areas requirements of the established standards are generally observed. Small water intakes either do not have sanitary protection areas or economic activity within their borders does not comply with the regulatory documents. Very often absence of sanitary protection areas is observed at water intakes constructed at sites with non-estimated reserves of ground waters. In addition, cases of unsatisfactory technical state of water intake wells are being registered. Information about the results of ground water monitoring is contained in annual reports 'State and Protection of the Environment of the Russian Federation' that are published on the website of the Ministry of Natural Resources and Environment of the Russian Federation (www.mnr.gov.ru/part/?pid=776).

2.4. Vegetation and forests

In Russian Federation monitoring of the background concentration of heavy metals (cadmium, lead, and mercury), benzpyrene, combination of DDT and γ - HCHH in vegetation cover is conducted on a regular basis. As a rule, such monitoring is carried out in vegetation growing in the specially protected areas, biosphere reserves that are least exposed to anthropogenic impact.

Information about the background content of contaminating agents in vegetation can be found in 'Reviews of the State of the Environment and Environmental Pollution in the Russian Federation' published on the website of Roshydromet (<http://www.meteor.ru>).

Conservation of biological diversity of forests is one of the first principles of the forestry legislation (Article 1 of the Forest Code of the Russian Federation). Forest monitoring includes observation of forest cover, composition of forest-forming wood species, change in the area of protected forests, area of forests destroyed by fire as well as forest pathology monitoring including forest exposure to pests (harmful insects and diseases), and influence of unfavorable climatic factors. The forest cover on the territory of the Russian Federation is shown in Figure 3.

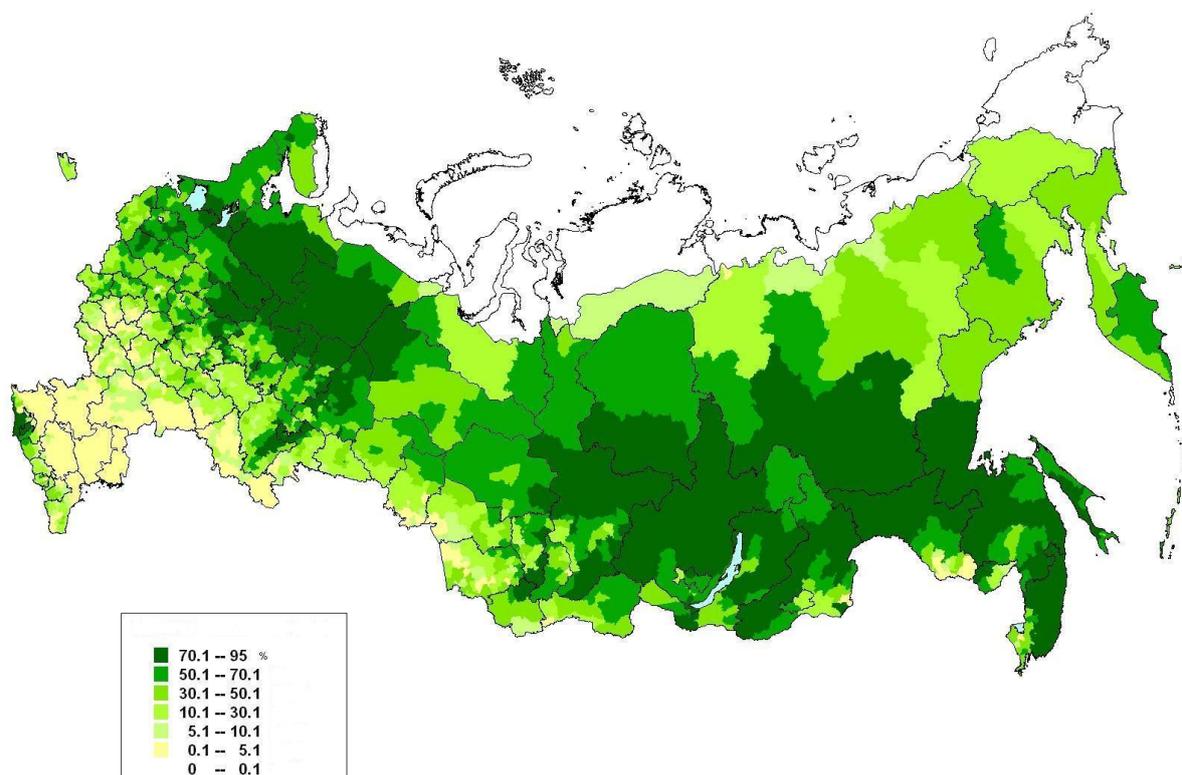


Figure 3. Forest cover on the territory of the Russian Federation, %

State forest inventory is carried out to provide timely identification and forecast of processes causing negative impact on forests; efficiency assessment of forest protection, conservation and regeneration measures; information provision for management in the field of use, protection, conservation and reproduction of forests, as well as state forest control and supervision in the Russian Federation. The main measures of this inventory are:

- Remote forest use monitoring;
- Assessment of measures for protection, conservation and regeneration of forests, use of forests with ground-based methods;
- Establishment of federal information resources;
- Definition of qualitative and quantitative characteristics of forests.

The state inventory of forests is conducted with various methods by the Federal Forestry Agency (Rosleshoz) in respect to forests located on the lands of the forest fund and on the lands of other categories. The state inventory of forests located on the lands of military defense facilities, specially protected natural sites is conducted upon the agreement with the Ministry of Defense of the Russian Federation and the Ministry of Natural Resources and Environment of the Russian Federation respectively.

A register of forests is being kept to organize efficient use, protection, conservation and regeneration of forests, systematic control over the qualitative and quantitative changes of forests. The register consists of four sections.

'Forests and Forest Resources' section contains documented information on:

- a) The structure of lands of the forest fund, the structure of land of other categories where forests are located;
- b) Forestry, forest parks, their compartments and forest mensuration divisions;
- c) Protective forests, their categories, commercial forests, reserved forests;
- d) Specially protected forest areas, areas with special usage conditions;
- e) Forest compartments/divisions;
- f) Qualitative, quantitative, economic characteristics of forests and forest resources.

'Forest Usage' section contains documented information on:

- a) Types of forest use envisaged by forest plan of a constituent entity of the Russian Federation and forestry regulation of forestry (forest parks);
- b) Provision of forest resources to citizens and legal bodies (about the rights of use, types and time of the authorized and actual use of forests, availability of projects for forest exploitation and conclusions of the state expert appraisal for such projects, and other information).

'Forest Protection and Conservation' section contains documented information about protection of forests, conservation of forests, about fulfilled forest protection and conservation measures foreseen by the forest plan of a constituent entity of the Russian Federation, regulations of forestry (forest parks).

'Forest Regeneration' section contains documented information about reproduction of forests, forest seed farming, fulfilled forest development and forest regeneration measures foreseen by the forest plan of a constituent entity of the Russian Federation, forestry regulations of forest farms (forest parks).

Consolidation of the documented information contained in the state register of forests is carried out by Rosleshoz.

Information about the forest cover, structure of forest-forming species, total reserve of standing timber is included into the program of the statistical digest 'Environmental Protection in Russia' and other publications of Rosstat, as well as in the 'State and Protection of the Environment of the Russian Federation' report of the Ministry of Natural Resources and Environment of the Russian Federation.

Data about the forest monitoring results are presented in annual reports 'State and Protection of the Environment of the Russian Federation' published on the website of the Ministry of Natural Resources and Environment of the Russian Federation (www.mnr.gov.ru/part/?pid=776).

2.5. Radiation monitoring

Monitoring of radioactive pollution of environmental media on the territory of Russia is undertaken by the radiation monitoring network of Roshydromet. Monitoring of the exposure dose rate (EDR) of gamma radiation is carried out at 1,312 points. Additionally, EDR measurements have been conducted at 30 stations in large cities and by means of automated sensors and automatic weather stations in the areas near some of the nuclear power stations. Monitoring of radioactive atmospheric emissions is carried out at 409 points, monitoring of volume activity of radionuclides in the ground level of the atmosphere - at 52 points, monitoring of volume activity of tritium in atmospheric precipitation - at 33 points, in river waters - at 15 points, monitoring of volume activity of ⁹⁰Sr in river and lake water - 47 points, in seas - at 10 stations.

Radiation monitoring includes the data about the content of technogenic radionuclides in the ground level air, atmospheric fallouts, soil, vegetation, snow cover, atmospheric precipitation, fresh and seawater on the territory of the Russian Federation.

Main attention is paid to the radiation situation in the regions where radiation-hazardous facilities are located. These include enterprises of nuclear fuel cycle, radiation-hazardous objects of the Ministry of Defense of the Russian Federation, nuclear waste disposal sites, enterprises that repair and maintain vessels with nuclear power units, and scientific institutions whose operations result in

generation of radioactive waste. In addition, radiation monitoring is conducted in some populated areas, districts of the Russian Federation at the contaminated areas. Figure 4 presents Moscow radiation monitoring scheme.

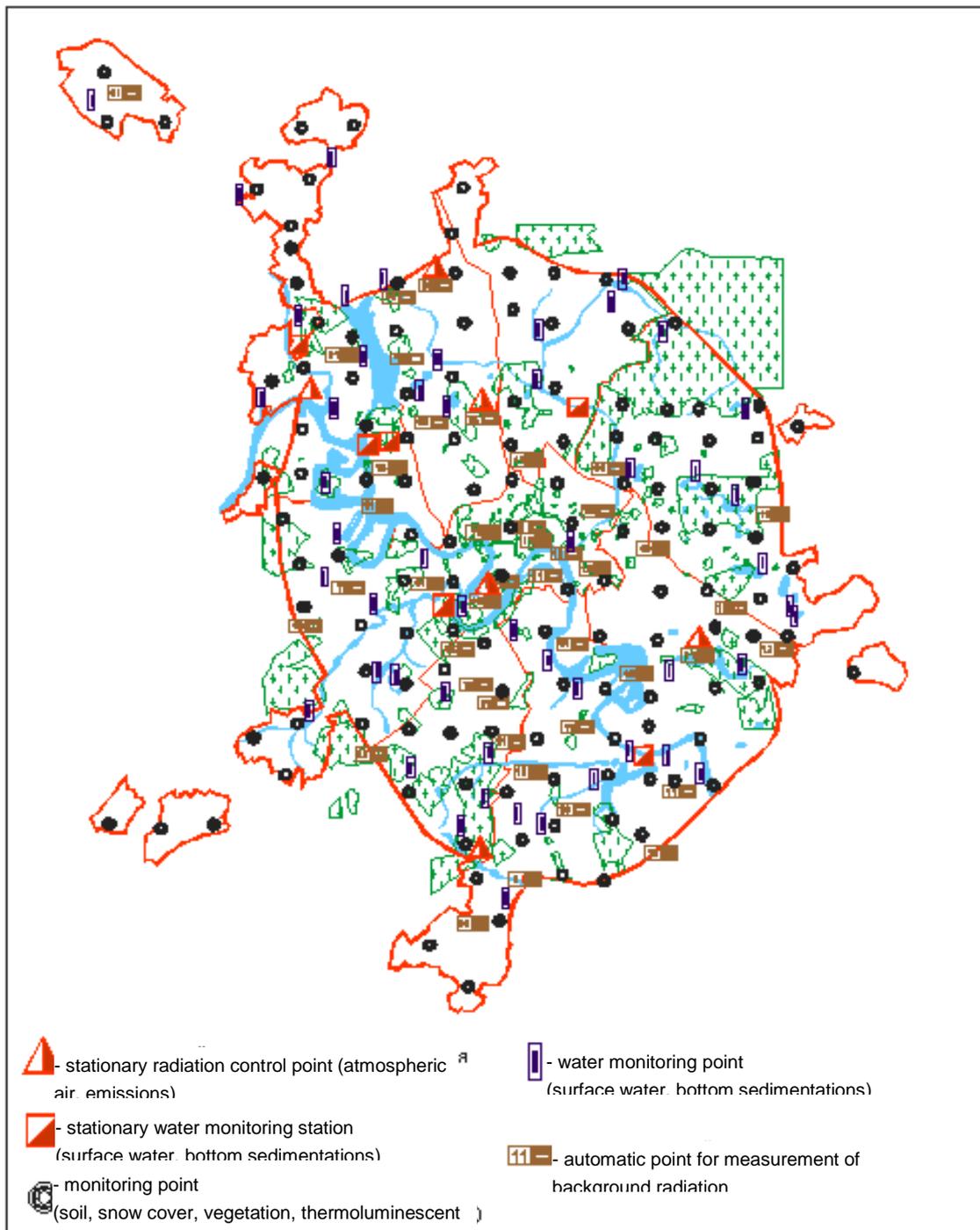


Figure 4. Moscow radiation and environmental monitoring scheme.

The most complete data about the radiation monitoring are available in the reviews ‘Radiation Situation on the Territory of Russia and Neighboring States’ published on the website of Roshydromet (<http://www.meteorf.ru>).

2.6. Biological diversity

Monitoring of biological diversity includes observations of the number of game animals, the state of reserves of water biological resources by their types (fish, pinnipeds, cetacean, invertebrates, algae, and sea grass), and alien invasive species. Besides, regular analysis of epizootic situation on the territory of the Russian Federation related to animal diseases is carried out.

Another type of biodiversity monitoring is analysis of the status of rare and endangered species of flora and fauna. The analysis is made through systematic observation of such animal and plant species and composition of the Red Book of Fauna of the Russian Federation, the Red Book of Flora of the Russian Federation as well as Red Books for constituent territories of the Russian Federation. Pursuant to Resolution of the Government of the Russian Federation No. 158 dated 19 February 1996 'On the Red Book of the Russian Federation'; the book is published at the federal level at least once every 10 years. In periods between the publication of the Red Book of the Russian Federation lists of fauna and flora species included and excluded from book (with supplements and amendments) are prepared and distributed. These lists are integral part of the Red Book of the Russian Federation.

Information about the results of biodiversity monitoring and red book keeping is contained in the annual reports 'State and Protection of the Environment of the Russian Federation' that are published on the website of the Ministry of Natural Resources and Environment of the Russian Federation (www.mnr.gov.ru/part/?pid=776).

The International Union for Conservation of Nature (IUCN) publishes Red Lists of Endangered Species. These lists are not a version of the Red Book; they are not similar to it, though they are close to its content. The structural framework of the new system is formed by two main blocks: a) endangered taxons and b) low risk taxons. The categories of the first block are the key items warning that representatives of taxon are under serious threat and can be lost in the near future. They form the main group of taxons covered by the red books of various levels. IUCN Red Lists are not legally binding documents, but are of recommendation character only. They cover fauna in global scale and contain recommendations for protection addressed to countries and governments on whose territory certain animal species happened to be endangered. In view of the global scale, these recommendations are of the most general, approximate nature. In this respect, the content of the national red books and red lists is not always in conformity with the content of IUCN Red Lists.

2.7. Specially protected natural territories

Pursuant to the Federal Law 'On Specially Protected Natural Territories' No. 33-FZ dated 14 March 1995, the following main categories of specially protected natural territories are distinguished:

- State wildlife preservation territories including biosphere reserves;
- National parks;
- Natural parks;
- State wildlife reserves;
- Nature monuments;
- Dendrological parks and botanic gardens;
- Health and recreation localities and resorts.

There are specially protected natural territories (SPNT) in all the constituent entities of the Russian Federation. Information about specially protected natural territories of federal level is contained in the annual reports 'State and Protection of the Environment of the Russian Federation' published on the website of the Ministry of Natural Resources and Environment of the Russian Federation (www.mnr.gov.ru/part/?pid=776).

Yet, the categories of Russian SPNTs are not fully harmonized with IUCN categories that is why in a number of cases they are named in line with Russian tradition, but not in line with IUCN structure (e.g. natural parks, resorts). This apparently requires harmonization with international legislation.

3. ACCOUNTING OF ENVIRONMENTAL IMPACT SOURCES

3.1. Emissions into atmospheric air

Environmental impact sources include:

- Emissions of pollutant into atmospheric air from stationary and mobile sources;
- Discharge of contaminated waste water into water bodies and pollutants contained in such waste water;
- Generation of production and consumption waste, its disposal.

As a rule, environmental impact sources are considered with reference to the main sections and sub-sections of the All-Russian Classifier of Types of the Economic Activity (OKVED).

Official statistical information, including environmental information, is formed in line with the federal statistical plan approved by the resolution of the Government of the Russian Federation No. 671-r dated 06.05.2008. The Federal statistical plan has an inter-agency basis: apart from Rosstat, 48 other federal executive bodies carry out collection, processing, storage and distribution of official statistical information in line with federal statistical observation and administrative information forms.

3.1.1. Polluting substances. According to the Law of the Russian Federation ‘On Atmospheric Air Protection’ No. 96-FZ dated 04.05.1999, the accounting shall cover: legal persons, individual entrepreneurs having any sources of pollutant emissions into the atmospheric air, as well as quantity and composition of polluting substances.

Information about emissions of pollutants into atmospheric air from stationary sources is formed on the basis of data from federal statistical observations according to the form No. 2-TP (air) ‘Information about the protection of atmospheric air’. Initial information about the quantity of pollutants generated, captured and released into atmosphere in the course of enterprise’s activity over the reporting period (total, solid matter, gaseous and liquid and by certain ingredients) is received on the basis of instrumental measurements and calculations carried out in accordance with methodologies duly approved by the Ministry of Natural Resources and Environment of the Russian Federation. Consolidated information about emission, capture and neutralization of atmospheric pollutants from stationary sources, by constituent entities of the Russian Federation, types of economic activity is presented in official publications, central statistical data base (CSDB), on the official website of Rosstat (www.gks.ru) and in the annual reports ‘State and Protection of the Environment of the Russian Federation’ published on the website of the Ministry of Natural Resources and Environment of the Russian Federation (www.mnr.gov.ru/part/?pid=776).

Automotive transport is one of the largest sources of environmental pollution. In Russian Federation relative share of automotive transport in the total emissions of pollutants from all sectors of economy remains level – about 40%. Assessment of emissions from transport is made on the basis of ‘Calculation instruction (methodology) on inventory of atmospheric pollutant emissions by automotive transport vehicles’ harmonized with EMEP/CORINAIR international methodology and taking into account the main significant factors: structure of vehicle fleet by types of vehicles and their basic design characteristics, structure of vehicle fleet by environmental classes and type of fuel used, conditions and intensity of operation for various types of vehicles. Information about emission of pollutants by mobile sources, including automotive transport, is presented in the annual reports ‘State and Protection of the Environment of the Russian Federation’ that are published on the website of the Ministry of Natural Resources and Environment of the Russian Federation (www.mnr.gov.ru/part/?pid=776), in official publications of Rosstat that are publically available from the official website of Rosstat (www.gks.ru).

3.1.2. Greenhouse gases

Methodological basis for assessment of greenhouse gases emissions from sources located in the Russian Federation is established by respective guidelines of the Intergovernmental Panel on Climate Change (IPCC) and guidelines for inventory of greenhouse gases approved by the United Nations Framework Convention on Climate Change. IPCC approach is based on the calculation method that assesses emission and absorption of gases relying on the use of data about particular types of activity. The main volume of the initial information for calculations covering the Russian Federation is received from materials of statistical reports.

Detailed information about emission and absorption of greenhouse gases in the Russian Federation is published in the annual National Reports on Cadaster of Anthropogenic Emissions from Emission Sources and Absorption by Greenhouse Gas Sinks, not regulated by Montreal Protocol, and in the National Communications. The above materials are published on the website of Roshydromet and United Nations Framework Convention on Climate Change. In addition, they are published in the digest 'Environmental Protection in Russia' that is publically available from the official website of Rosstat (www.gks.ru).

3.2. Discharge into water bodies

The Water Code of the Russian Federation adopted on 03.06.2006 under No. 74-FZ stipulates that the owners of water bodies shall take measures to protect them, prevent their contamination and depletion, as well as measures to eliminate consequences of these phenomena. All legal entities, individual entrepreneurs that consume water shall fill in the annual federal state statistical observation form No2-TP (vodhoz) 'Information on Water Use'. Report according to the form No2-TP (vodhoz) has the following major parts.

The first part covers reporting on the quantitative indicators of water intake from natural sources, received from other water users, as well as the information on the quantity of water used. This part keeps a record of the total annual amount of water used, including water consumed for household and drinking purposes, for production needs, for regular irrigation, for agricultural water supply. The second part of form No2-TP (vodhoz) 'Water Disposal' envisages reporting on the total quantity of disposed waste water over the reporting period, the total quantity of contaminated waste water, of water disposed without purification, quantity of contaminated and insufficiently treated waste water, quantity of clean waste water in line with the standard, including waste water treated with various purification methods, as well as the content of pollutants in waste water discharged into water bodies.

Information about the use of water and discharge of waste water into water bodies by types of economic activity under the responsibility of the Federal Water Resources Agency (Rosvodresursy) is published in the annual reports 'State and Protection of the Environment of the Russian Federation' that are published on the website of the Ministry of Natural Resources and Environment of the Russian Federation (www.mnr.gov.ru/part/?pid=776), in annual reports 'On State of Water Resources' published on the website www.mnr.gov.ru/files/part/4490_gosdoklad_po_vodn_resursam_za_2008_g..pdf, and in official publications of Rosstat that are publically available from the official website of Rosstat (www.gks.ru).

3.3. Management of production and consumption waste

According to the Federal Law 'On Production and Consumption Waste' No. 89-FZ dated 24 June 1998, individual entrepreneurs and legal persons that carry out their activity in the field of waste management must keep records of waste generated, used, neutralized, waste transferred to and received from other persons, as well as disposed of waste in line with the established order.

Physical persons that carry out their business activity without set up of a legal entity (individual entrepreneurs) with operations in the field of production and consumption waste management, and legal persons, including their subdivisions, whose operations result in generation, use, neutralization and disposal (including storage and landfilling) of production and consumption waste, and those of collection and transportation waste, shall fill in the annual federal state statistical observation form No. 2-TP (waste) 'Information on generation, use, neutralization, transportation and disposal of production and consumption waste'.

Report according to the form No. 2-TP (waste) is developed on the basis of the primary accounting data in the field of waste management as well as passport of hazardous waste. Established waste classification (types of waste) is used when filling this form. All information about waste is grouped by environmental hazard classes and is presented in order starting with class I (the most hazardous waste) to class V (practically unhazardous) inclusive.

Generalized information about management of production and consumption waste by types of economic activity, which is the responsibility of the Federal Supervisory Natural Resources

Management Service (Rosprirodnadzor), is published in the annual reports 'State and Protection of the Environment of the Russian Federation' that are available from the website of the Ministry of Natural Resources and Environment of the Russian Federation (www.mnr.gov.ru/part/?pid=776). In the Russian Federation gathering of data on collection of household litter, liquid waste and solid household waste is carried out only for the cities according to the federal statistical observation form No 1-KH. Besides, transportation of solid household waste to the industrial recycling enterprises by special vehicles is being recorded. Rural settlements are not covered by observations. There is no division according to the types of waste and litter collected. Data on management of industrial and consumption waste according to federal statistical observation form No2-TP (waste) cover all types of waste including municipal waste. At that, when data is being processed municipal waste is not pointed out at the regional and federal levels.

Development of data is carried out according to the legislation of the Russian Federation. Therefore, development of data on waste management methods applied in European practice, such as re-use, incineration, composting, waste disposal at dumps, is not conducted.

From 1995 till 2001, Rosstat collected data on toxic waste according to the federal classification catalogue of toxic industrial and consumption waste depending upon the degree of its negative impact on the environment and people in line with 4 hazard classes (approved by the Directive of Goskomecology of Russia No527 as of 27.11.1997. Currently, it has been cancelled).

Collection and processing of data on management of industrial and consumption waste for 5 hazard classes according to the Classification Waste Catalogue approved by the Decree of the Ministry of Natural Resources of the Russian Federation No 786 as of December 2, 2002 has been carried out by the following organizations: from 2002 to 2003 - by the Ministry of Natural Resources of the Russian Federation, from 2004 to 2009 - by Rostekhnadzor, from 2010 until now- by Rosprirodnadzor.

Due to the change from OKONH (All-Russian Classifier of National Economy Sectors) to OKVED (All-Russian Classifier by Types of Economic Activity) (harmonized with NACE Rev.1) development of data by the types of economic activity has been carried out since 2004.

4. COMMITMENTS FOR ADHERENCE TO INTERNATIONAL ENVIRONMENTAL AGREEMENTS (IEA)

The Russian Federation is a party to many global, regional and sub-regional conventions, agreements and protocols. Information about participation of the Russian Federation in IEAs and programs is given in Table 2.

Table 2. International environmental agreements

| <i>IEA/programs</i> | <i>Signature date</i> | <i>Ratification date (Rt), Accession date (Ac), Approval date (Ap), Adoption date (At), Date of entry into force (EIF)</i> |
|--|-----------------------|--|
| Global | | |
| United Nations Framework Convention on Climate Change (UN FCCC) | 11.03.1999 | 04.11.1994 (Rt) |
| Kyoto Protocol (Kyoto, 1997) | 11.03.1999 | 04.11.2004 (Rt) |
| Vienna Convention for the Protection of the Ozone Layer (Vienna, 1985) | 22.03.1985 | 18.06.1988 (Rt) |
| Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal, 1987) | 29.12.1987 | 10.11.1988 (Rt) |
| London Amendment | | 13.01.1992 (Rt) |
| Copenhagen Amendment | | 14.02.2005 (Rt) |
| Montreal Amendment | | 14.02.2005 (Rt) |
| Beijing Amendment | | 14.02.2005 (Rt) |
| Convention on Biological Diversity (Rio de Janeiro, 1992) | 13.06.1992 | 05.04.1995 (Rt) |
| The Cartagena Protocol on Biosafety (Montreal, 2000) | | |
| Convention to Combat Desertification (Paris, 1994) | | 29.05.2003 (Ac) |
| Convention on Persistent Organic Pollutants (Stockholm, 2001) | 22.05.2002 | 27.06.2011 (Rt) |
| Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel, 1989) | 22.03.1990 | 31.01.1995(Rt) |
| Convention on Wetlands of International Importance (Ramsar Convention) | | 11.02.1977 (EIF) |
| Convention Concerning the Protection of the World Cultural Heritage (Paris, 1972) | | 12.10.1988 (Rt) |
| International Convention for the Regulation of Whaling (Washington, 1946) | | 10.11.1948 (Ac) |
| Convention on the International Trade in Endangered Species of Wild Fauna and Flora (CITES) (Washington, 1973) | | 13.01.1992 (Rt) |
| Convention on the Conservation of Migratory Species of Wild Animals (Bonn, 1979) | | |
| Agreement on the Conservation of Bats in Europe | | |
| Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas | | |
| Agreement on the Conservation of African-Eurasian Migratory Waterbirds | | |
| International Convention for the Prevention of Pollution from Ships of 1973 amended by Protocol of 1978 to it | | 25.05.1980 (EIF) |
| Convention on the Conservation of Antarctic Marine Living Resources (Canberra, 1980) | 11.09.1980 | 26.05.1981(Rt) |
| Protocol on Environmental Protection to the Antarctic Treaty (Madrid, 1991) | | |
| Global Forestry Resources Assessment (FAO) | | Participant |

| <i>IEA/programs</i> | <i>Signature date</i> | <i>Ratification date (Rt), Accession date (Ac), Approval date (Ap), Adoption date (At), Date of entry into force (EIF)</i> |
|---|-----------------------|--|
| Regional | | |
| Convention on Long-range Transboundary Air Pollution (Geneva, 1979) | 13.11.1979 | 22.05.1980 (Rt) |
| Protocol about long-term financing of the Co-operative program for monitoring and evaluation of the long range transmission of air pollutants in Europe (EMEP)-1984 | 28.09.1984 | 21.08.1985 (At) |
| Protocol on the Reduction of Sulphur Emissions - 1985 | 09.07.1985 | 10.09.1986 (At) |
| Protocol concerning the Control of Emissions of Nitrogen Oxides -1988 | 01.11.1988 | 21.06.1989 (At) |
| Protocol on Control of Volatile Organic Compounds Emissions – 1991 | | |
| Protocol on Further Reduction of Sulphur Emissions – 1994 | 14.06.1994 | |
| Protocol on Heavy Metals - 1998 | | |
| Protocol on Persistent Organic Pollutants - 1998 | | |
| Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol) – 1999 | | |
| Convention on the Protection and Use of Transboundary Watercourses and International Lakes | 18.03.1992 | 02.11.1993 (At) |
| Amendment | | |
| Protocol on Water and Health | 17.06.1999 | 31.01.1999 (At) |
| Convention on the Transboundary Effects of Industrial Accidents (Helsinki, 1992) | 18.03.1992 | 02.11.1993 |
| Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus, 1998) | | |
| Amendment | | |
| Protocol on Pollutant Release and Transfer (Kiev, 2003) | | |
| Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, 1991) | 06.06.1991 | |
| Amendment 1 | | |
| Amendment 2 | | |
| Protocol on Strategic Environmental Assessment | | |
| Convention on the Conservation of European Wildlife and Natural Habitats (Bern, 1979) | | |
| Sub-regional | | |
| Framework Convention for the Protection of the Marine Environment of the Caspian Sea (Teheran, 2003) | 04.11.2003 | 12.08.2006 (EIF) |
| Convention on the Protection of the Marine Environment of the Baltic Sea Area | | 05.10.1998 (Rt) |
| Convention on the Protection of the Black Sea against Pollution | 21.04.1992 | 16.11.1993 (Rt) |
| Arctic Monitoring and Assessment Programme (AMAP) | | Participant |

4.1. Reporting within the framework of global IEAs

Russia is a party to 13 global conventions and two protocols to them.

In execution of the undertaken commitments under UN FCCC and Kyoto Protocol, National Reports on Cadastre of Anthropogenic Emissions from Emission Sources and Absorption by Greenhouse Gas Sinks are provided to UN FCCC Secretariat on an annual basis. In February 2010, the Fifth National Communication on Climate Change was developed in Russian and furnished to UN FCCC Secretariat. The Communication is published on the website of the

Convention (http://unfccc.int/national_reports/). Earlier communications, including National Cadastres, can also be found on the website.

For adherence to the Vienna Convention and Montreal Protocol, data of observations of total ozone content conducted at 28 Russian ozone measuring stations were regularly furnished to the WMO World Ozone and UV Data Centre – WOUDC). Data of Russian stations are reflected on WOUDC map on a daily basis (http://exp-studies.tor.ec.gc.ca/e/ozone/Curr_allmap.htm). Furthermore, the Russian Federation annually provides data about ozone-destroying substances to the Secretariat of Vienna Convention following the form established by the Secretariat. Data are published on the website of the Convention (http://ozone.unep.org/Data_Reporting/Data_Access/).

In 2009, the Russian Federation provided its Fourth National Report on Biodiversity to the Convention Secretariat. Full text of the report is available at the website of the Convention in Russian, and summary conclusions are presented in English (<http://www.cbd.int/reports/search>).

Three earlier submitted reports are also available at the website and at the site of the Wildlife Conservation Center (<http://ruschm.org/konvenciya/rossiiskie-dokumenty/nacionalnye-doklady/>).

In 2006, Third Report of the Russian Federation on Desertification was prepared. It can be found on the website of the Convention to Combat Desertification in English (<http://www.unccd.int/cop/reports/centraleu/centraleu.php>), and on the website of the Wildlife Conservation Center (<http://ruschm.org/konvenciya/rossiiskie-dokumenty/nacionalnye-doklady/>).

On 27 June 2011, the Russian Federation ratified the Convention on Persistent Organic Pollutants.

In 2006 in pursuance of the requirements of the Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, national reports on transboundary and transit movements of hazardous waste and their disposal for 2003 and 2004 were provided to the Convention Secretariat in English. Information about the reports is published on the website <http://www.basel.int>. National reports for later years presupposing annual reporting frequency were not provided to the Convention Secretariat.

Within the framework of Ramsar Convention on the Wetlands of International Importance, the Russian Federation provides regular national reports about fulfillment of the Convention's requirements. The latest report of this kind for 2008 was provided in English and is published on the Convention's website: <http://www.ramsar.org>.

According to the provisions of the Convention on the International Trade in Endangered Species of Wild Fauna and Flora, Russia provides both annual and biennial reports about this type of activity. The latest reports were prepared for 2008 and 2005-2006, respectively. The texts of biennial reports in English are published on the website of the Convention: <http://www.cites.org>.

Russia regularly submits reports on execution of the Agreement on the Conservation of Populations of Bats in Europe. At the same time, the country is not a party to the Convention on the Conservation of Migratory Species of Wild Animals. The latest report for 2008 is published on the website: http://www.eurobats.org/documtnts/national_reports.htm.

Russia developed 'Global Forest Resources Assessment 2010', which was submitted to Food and Agriculture Organization of the United Nations (FAO). The English version of the report is available at the Organization's website: <http://www.fao.org/forestry/20262-1-158.pdf>. According to the UNECE conclusion, the report should have presented data on 2120 elements. At that, the average response rate was assessed at the level of 937 elements. In its report Russia provided data about 692 elements, covering all the indicators except one. Yet, the level of tables' completion was rather low.

4.2. Reporting within the framework of regional IEAs

Russia is a party to four regional conventions and five protocols to them.

According to the regulation adopted within the framework of the Convention on Long-range Transboundary Air Pollution, Russia regularly submits data about emissions of sulphur compounds and nitrogen oxides to the Convention's Secretariat. These data are published on the website of the Convention: <http://www.unece.org/env/lrtap/ic/reports.htm>. In addition, the country submits data about monitoring of transboundary transfer of pollutants to the European Databank of UNECE.

In pursuance of the requirements of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, in March 2010 Russia prepared and submitted Brief Report in accordance with the Protocol on Water and Health in Russian. The report is available at the website of the Convention: <http://www.unece.org/env/water/>.

The Russian Federation implements provisions of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes within the framework of seven concluded agreements on joint use and protection of the transboundary water bodies with neighboring countries (Belarus, Kazakhstan, China, Mongolia, Ukraine, Finland and Estonia). Russia and these countries regularly exchange hydrological and hydrochemical information, coordinate the regimes of water bodies' usage, coordinate flood-protection measures and actions in cases of emergency, settle issues concerning redistribution of water resources.

Within the framework of the monitoring programme of the Baltic Sea marine environment pollution Russia regularly provides HELCOM Secretariat with data about hydrochemical parameters and contamination level obtained from observations in the territorial waters, in the eastern part of the Gulf of Finland, in Vistula Gulf and Couronian lagoon.

The Russian Federation is not a party to the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters. It is not a party to the Protocol of this Convention on Pollutant Release and Transfer Registers. Besides, Russia did not ratify the Convention on Environmental Impact Assessment in a Transboundary Context. However, in 2011, the President of the Russian Federation sent a mission to the Ministry of Natural Resources and Environment of the Russian Federation and other interested ministries and institutions to undertake the necessary measures to ratify these two conventions. Currently, preparatory work is in progress and ratifications are realistically possible in 2013.

In general, the Russian Federation fulfills its obligations under international conventions and agreements. However, national communications and reports on the fulfillment of multilateral agreements that are submitted to the international organizations are not presented on the website of the Ministry of Natural Resources and Environment of the Russian Federation and other responsible institutions in Russian language and that is why they are not available to the stakeholders and the general public.

4.3. Reporting within the framework of sub-regional IEAs

Russia is a party to three marine conventions and the Arctic Monitoring and Assessment Program (AMAP).

In 2003 in pursuance of the requirements of the Framework Convention for the Protection of the Marine Environment of the Caspian Sea, the country developed the National Caspian Action Plan of the Russian Federation in the field of the natural resource management and environmental protection for the period till 2007 in English and in Russian (www.caspianenvironment.org). In 2007, the plan was extended and approved by the constituent entities of the Russian Federation located in the basin of the Caspian Sea.

Network organizations of Roshydromet regularly (up to six times a year) monitor coastal areas of the Caspian Sea in its northern and central parts. Results of the monitoring are presented on the following website: <http://www.oceanography.ru>.

Roshydromet network organizations monitor the Black sea in the coastal waters of Sochi, Tuapse, Novorossiysk, Anapa and Gelendzyk four times a year in order to fulfill the requirements of the Convention on the Protection of the Black Sea against Pollution. Monitoring results are published on the website <http://www.oceanography.ru> and are submitted to the Convention Secretariat.

In pursuance of the commitments under the Convention on the Protection of the Marine Environment of the Baltic Sea Area, network organizations of Roshydromet regularly monitor hydrological, hydrochemical and hydrobiological parameters in waters of the eastern part of the Gulf of Finland and Neva Bay. Monitoring results are published on the website: <http://www.oceanography.ru>, and are submitted to the Convention Secretariat.

Scientific organizations of Roshydromet, the Academy of Sciences, the Federal Fisheries Agency (Rosrybolovstvo) and a number of other organizations carry out regular oceanographical, hydrochemical, hydrobiological surveys in the Caspian Sea, the Black Sea and the Baltic Sea. The results of these surveys are collected in the database of the Uniform State System of Information about the Situation in the World Ocean (<http://www.oceaninfo.ru>), (http://www.esimo.ru/srbd_data/index.jsp), and are submitted to the Secretariats of the Convention.

AMAP is one of the five working groups of the Arctic Council established in 1991. The main aim of the Programme is preparation of joint scientific expert reports (including Russian experts) about the impact of persistent organic pollutant, radioactivity, climate change and other issues on the environment and people. AMAP materials are published on the programme's website: <http://amap.no>.

5. NATIONAL ENVIRONMENTAL REPORTING AND DATA EXCHANGE

5.1. Annual state reports and other official environmental publications

One of the forms to exchange ecological and nature protection information is the development process of annual state reports about the state and protection of the environment. Various federal executive bodies, executive bodies of constituent territories of the Russian Federation, scientific and civil society organizations, and economic entities participate in the process. Over the last two decades, the Russian Federation has been preparing and publishing annual national state reports on the state and protection of the environment.

Publication of the reports is regulated by the Resolution of the Council of Ministers – the Government of the Russian Federation No. 53 dated 24.01.1993. The necessity to develop annual state reports is also confirmed by the special article of the Federal Law 'On Environmental Protection' as of 10.01.2002.

The citizens' right for reliable information about the status of the environment is stipulated by the Constitution of the Russian Federation (Article 47).

Respect of the citizens' right to receive reliable information about the state of the environment is one of the main principles of environmental protection established by the Federal Law No.7-FZ 'On Environmental Protection' (Article 3) dated 10.01.2002.

This law also determines the authorities of the government bodies of the Russian Federation (article 5) and authorities of the government bodies of the constituent entities of the Russian Federation (article 6), envisaging provision of reliable information about the state of the environment to the population.

This report is quite a large document. In various years up to 40 executive power bodies, scientific and civil society organizations participated in the preparation of the report. The Ministry of Natural Resources and Environment of the Russian Federation is responsible for the organization of report development. It coordinates the work of participating organizations through the Interagency Task Force that is annually established by the order of the Ministry of Natural Resources and Environment of the Russian Federation. Exchange of information happens within the activity of the Task Force. When the preparation is over, the draft report is submitted to the Government of the Russian Federation so that decisions on it could be made, including the decision on its copying. Since 2003, texts of the annual reports 'State and Protection of the Environment of the Russian Federation' in Russian have been published on the website of the Ministry of Natural Resources and Environment of the Russian Federation (www.mnr.gov.ru/part/?pid=776). Only once, in 1993, the report was translated into English.

The main purpose of the state reports is:

- Consolidation and analysis of information required to elaborate and implement environmental policy;
- Provision of the government authorities and population of Russia with objective and systematized information about the quality of the environment, state of the natural resources and their trends under the influence of economic activity;
- Identification of priority areas and aspects of environmental protection activity;
- Development of information about legal, organizational, technical and economic measures in the field of environmental protection, conservation and recovery of natural resources that are implemented on the territory of the Russian Federation;
- Establishment of a foundation to develop programs of various levels aimed at the improvement of environmental situation in the Russian Federation.

With adoption of Federal Law No. 331-FZ 'On introduction of changes to the Federal Law 'On Environmental Protection' and certain other legislative acts of the Russian Federation', adoption of a new legal act regulating preparation of the state environmental reports is expected.

At the same time, a number of federal executive bodies (Roshydromet, Rosvodresursy, the Ministry of Emergency Situations of the Russian Federation, the Ministry of Healthcare and Social Development of the Russian Federation, Rosleshoz, Rosreestr, the Ministry of Agriculture of Russia) also publish reports about their activity that contain environmental information. Alongside with that, no regular and systematic exchange of environmental data between the federal bodies of executive power is observed. Every agency publishes any information it finds necessary on its website or Internet portal.

There is a good level of environmental information exchange in the constituent entities of the Russian Federation. Along with the territorial bodies of the federal environmental protection agencies a special structure (environmental protection departments, directorates or units) has been established at the governments (administrations) of the constituent entities of the Russian Federation. One of the tasks of the indicated bodies is coordination of activity of environmental protection bodies within the territory of a constituent entity. The majority of the constituent entities of the Russian Federation publish "State and Protection of The Environment" Reports, environmental bulletins and other documents covering their respective territories. For that purpose interagency committees are set up which regulate environmental data exchange between all environmental protection organizations functioning within a constituent entity of the Russian Federation.

Uniform Interagency Information and Statistical System (UIISS) was set up and put into operation by the resolution of the Government of the Russian Federation No. 367 of 26.05.2010 in order to integrate statistical information resources of all agencies, establish a single access point for users to the government statistical resources and single source of statistical information for the government information system.

UIISS incorporates statistical information from all the official statistical service agencies in accordance with the federal statistical plan.

UIISS is accessed via UIISS Internet portal (www.fedstat.ru). UIISS Internet portal gives users the opportunity to navigate by the sections of the federal statistical plan, by the official statistical service agencies, by context search of indicators included into the Register of UIISS indicators. User has access to data and to metadata, including the passport of the indicator.

Information from UIISS in electronic format can also be received via a uniform portal of public services (<http://www.gosuslugi.ru/>).

Roshydromet has substantial information resources. Every year it publishes reviews and annual reports on the state of the environment and environmental pollution in the Russian Federation by environmental media (atmospheric air, surface and sea water, soils etc.). However, widely available publications posted on the website of Roshydromet are 'Reviews of the State of the Environment and Environmental Pollution in the Russian Federation' (<http://www.meteorf.ru>). Other documents are only presented by their titles. In addition, monthly information about emergency and extremely high level of environmental pollution and radiation situation is available from the website.

Every year **the Ministry of Emergency Situations of Russia** publishes the state report 'On the Status of Protection of Population and Territories of the Russian Federation from Natural and Technogenic Emergency Situations' that contains the chapter 'Prevention of Emergency Situations and Mitigation of Negative Effects for Population and Territories'. The reports are published in Russian with the circulation of 700 copies. The reports, including the last one for 2009, are posted on the website of the Ministry (www.mchs.gov.ru).

Sanitary and epidemiological service of Minzdravsotzrazvitiye of Russia develops and publishes in Russian the annual state report "On Sanitary and Epidemiological Situation in the Russian Federation". The report is posted on the website: www.rospotrebnadzor.ru/documents/doclad. The report contains special sections focusing on the hygiene of atmospheric air, status of water bodies in the areas of water use by population in small rivers and at the sea coast, drinking water supply, hygiene of soils, sanitary and epidemiological state of housing and utility facilities, radiation environment in the country, exposure to radiation from natural sources of ionizing radiation.

Publications of **Rosstat** on the environmental protection issues are posted on the website: www.gks.ru. They include:

Statistical digest 'Environmental Protection in Russia' published in Russian once every two years with circulation of 500 copies. The digest contains detailed information about the state of the environment, availability and use of natural resources. The digest also includes information about protection of atmospheric air; emission of greenhouse gases; protection of water, land, forest, hunting and fishery resources; generation, use and neutralization of production and consumption waste; specially protected natural territories of federal importance; about environmental protection costs; environmental violations; about investments into capital assets aimed at environmental protection and efficient use of natural resources broken down by directions and financial sources, as well as data about commissioning of facilities for protection of water resources and air against pollution. The published information is based on the official statistical data of Rosstat, and data of federal executive bodies whose activity is linked with natural resources management, ecological control and protection of the environment;

Statistical bulletin 'Main Environmental Protection Indicators' published in Russian once every 2 years with circulation of 70 copies. The bulletin contains information about the main environmental protection indicators and efficient use of natural resources broken down by constituent territories and cities of the Russian Federation and types of economic activity. The majority of the indicators reflect the trends of the last five years.

Statistical bulletin 'Russian Statistical Digest' is published in Russian annually with the circulation of 2,000 copies. The annual bulletin includes 'Natural Resources and Environmental Protection' section containing the data about the average monthly air temperature, water resources, specially protected natural territories of federal importance, use of fresh water, including recycling and successive water use, volumes of waste water and amount of contaminating agents in it, volumes of atmospheric emissions from stationary sources and the number of the most widely spread atmospheric pollutants, utilization of atmospheric pollutants captured by treatment facilities and some other data. The majority of the data are given in the form of trends over a long (over 15 years) period. 'Forestry' section contains data about forest resources, protection and conservation of forests and the main indicators of hunting sector activity. The sections 'Production and Distribution of Electricity, Gas and Water' and 'Transport' contain data necessary for calculation of a number of environmental indicators (electricity balance, generation of electricity by power stations, transportation of cargos by types of vehicle, cargo turnover, passenger turnover, availability of vehicles, consumption of gasoline and diesel fuel by automotive transports and a number of other indicators).

Furthermore, sections dedicated to environmental protection are included in the following publications of Rosstat:

- Russia in figures;
- Regions of Russia. Social and economic indicators;
- Agriculture, hunting and hunting sector, forestry in Russia;
- Social status and level of live of the population of Russia;
- Healthcare in Russia;
- Industry in Russia;
- Transport in Russia;
- Russia and countries of the world;
- Belarus and Russia.

5.2 Environmental information resources

Information obtained from all types of environmental monitoring at the cost of the government budget funds refers to relates state information resources.

In Russian Federation, Roshydromet is in charge of keeping the Uniform State Fund of Data (USFD) about the state of the environment, and its pollution that represents a classified, permanently updated bank of documented information about the state of the environment, and its pollutants, which is obtained in the course of works performed by Roshydromet, other stakeholder federal executive bodies, and their territorial bodies including those that monitor the state and pollution of the environment. The USFD catalogue is the top-level directory designed to inform a

wide range of users on the composition of USFD information resources and organizations that store USFD documents and provide information support.

USFD directory contains information about:

- Types and availability of information that is the basis for USFD and provision of information services to users;
- Territories covered by USFD;
- Observation periods for each type of information on the territories covered by USFD;
- Type of information carrier and its quantitative characteristics;
- Place of storage for each type of information for a particular territory with all the contact details of the organization providing storage and support services.

Legal and physical bodies regardless of their organizational-legal form can receive data on the composition and placement of USFD information, (but not the information itself), free of charge upon a written request of established format submitted to Roshydromet bodies. The response is provided within a month from the date of the request. Development and publication of bulletins about new entries in the fund in the form of publications and/or posts on the websites is made by territorial bodies and the state institutions of Roshydromet on a quarterly basis. Information on the newly entered legislative, regulatory documents and guidelines regarding the activity of USFD is published in the section 'Legal and Methodological Documents of USFD' section as soon as new documents are published. All the information about the activity of USFD is published on the website: <http://www.meteo.ru>.

With the adoption of Federal Law No. 331-FZ 'On introduction of changes to the Federal Law 'On Environmental Protection' and certain other legislative acts of the Russian Federation' dated 21.11.2011, adoption of a new legal act governing formation of USFD is expected (taking into account establishment of the unified data fund on environmental pollution).

5.3. Environmental Internet Portals

In the Russian Federation several environmental Internet portals are in operation. The most informative one is the Russian 'National Portal Priroda' (www.priroda.ru) and 'All-Russian Environmental Portal' (www.ecoport.ru).

'National Portal Priroda' was established in 1999 by National Information Agency 'Natural resources' (NIA-Priroda) with support from UNEP/GRID-Arendal within the framework of information and analytical support program to the Ministry of Natural Resources and Environment of the Russian Federation. The portal contains analytical materials on the environmental and resource policy, use of natural resources, environmental safety, participation of civil society in environmental movement. Currently, the portal is supported by the own resources of NIA-Priroda. 'All-Russian Environmental Portal' has sections of environmental news, calendar of environmental events, environmental glossary, environmental articles and a number of other sections. The most interesting section of the portal is 'Environmental Law and Documents'. By typing part of the title or description of the searched document in the search field one can access the documents.

The portal of observation data and scientific information about the state of the ocean (Russian part) for public use integrates information centers of over 10 Russian agencies participating in the program of Uniform State System of Information about the Situation in the World Ocean (<http://www.oceaninfo.ru>).

The portal on analysis of climatic changes according to the data of meteorological observations (<http://www.climatechange.ru>) posts quarterly and annual bulletins for the territory of Russia. Website operates in trial mode (website of Roshydromet on climate).

Rosstat also has its own portal (www.gks.ru) with a separate page of official statistical information about environmental protection and efficient use of natural resources. The 'Environment' section includes data about specially protected natural territories, the number of main game animal species, the use of fresh water, volumes and emissions of some pollutants, generation, use and neutralization of waste, forestry, biodiversity, expenditure for environmental protection, investments into the capital assets aimed at environmental protection and efficient use of natural resources and

about commissioning of capacities for protection of water resources and atmospheric air from contamination. Some indicators are available not only in the form of prescribed tables and databases, but also in the form of cartograms and graphs. In addition, the page contains updated information, methodological findings and official publications in the field of environmental protection.

The website of Rosstat gives access to the central base of statistical data (CBSDB), which gives users an opportunity to generate the necessary statistical tables upon individual request from the available data. 'Natural Resources and Environmental Protection' section of CBSDB contains information about land, water, forest and hunting resources, specially protected natural territories, geological explorations, protection of atmospheric air, management of production and consumption waste, current costs for environmental protection. In the subsection "Nature Protection Construction" of the "Construction and Investment" section there is data on investments into the capital assets aimed at environmental protection and efficient use of natural resources broken down by aspects, financial sources, types of economic activity, as well as data about commissioning of environmental protection facilities.

In general, the existing Internet portals meet the contemporary technical requirements, but the volume of their environmental materials (analytical reports, reviews, bulletins) received at the cost of federal budget leaves much to be desired. To increase access to environmental information it would be desirable to reveal the content of these documents and not just provide their titles.

5.4. Application of environmental indicators

After the adoption of UNECE guidelines on environmental indicators and assessment reports based on them at the Sixth Ministerial Conference 'Environment for Europe' that took place in Belgrade in 2007, the state reports 'State and Protection of the Environment of the Russian Federation' make use, fully or partially, of a number of environmental indicators such as emission of pollutants into the atmospheric air, quality of atmospheric air in urban populated areas, emissions of greenhouse gases (in the national climate change communication), renewable resources and freshwater intake, losses and recycling of freshwater, contaminated waste water, quality of drinking water, withdrawal of land from productive turnover and a number of other indicators. However, the use of environmental indicators is of fragmentary nature. This is generally related to the format of the state report specified by the resolution of the Council of Ministers – the Government of the Russian Federation No. 53 in 1993.

A number of other environmental indicators for the sections 'Land Resources', 'Energy', 'Municipal Household Waste' that are recommended to be used are not applied at all.

As it was mentioned earlier, with the adoption of the Federal Law No. 331-FZ 'On introduction of changes to the Federal Law 'On Environmental Protection' and certain other legislative acts of the Russian Federation', adoption of a new legislative act that regulates development of the state reports on the protection of the environment is expected.

At the same time, Rosstat, upon the agreement with the federal executive bodies, worked out the Integrated System of Environmental Protection Statistical Indicators that takes into account the guiding principles for application of environmental indicators in the EECCA countries approved by UNECE Environmental Policy Committee in May 2007 and considered at the Sixth 'Environment for Europe' Ministerial Conference in Belgrade in October 2007 (approved by Rosstat on December 22, 2008 after coordination with the federal executive bodies). It included:

- Indicators recommended by international organizations as environmental ones;
- Indicators used at the national level for official statistical publications, in state environmental protection reports, in monitoring of the efficiency assessment of executive power bodies of the constituent entities of the Russian Federation and local self-government bodies etc.

Integrated system of environmental indicators will be updated on a permanent basis alongside the development and application of classifications and methodological approaches to formation of environmental indicators harmonized with international standards.

6. STEPS TO INTEGRATE INTO THE SHARED ENVIRONMENTAL INFORMATION SYSTEM

On November 21, 2011, the Russian Federation adopted the Federal Law No. 331-FZ 'On introduction of changes into the Federal Law 'On Environmental Protection' and certain other legislative acts of the Russian Federation'. Adoption of the above Law and interest of the Russian Federation in European environmental cooperation give hope for successful and efficient integration of the country into SEIS structure.

The Federal Law envisages establishment of a unified system of state environmental monitoring (state monitoring of environment). The system includes the following state monitoring sub-systems:

- the state and pollution of the environment;
- atmospheric air;
- radiation situation on the territory of the Russian Federation;
- land;
- fauna;
- forest pathology;
- the state of sub-soils;
- water bodies;
- biological water resources;
- internal marine waters and territorial sea of the Russian Federation;
- exclusive economic zone of the Russian Federation;
- the continental shelf of the Russian Federation;
- unique environmental system of the Baikal Lake; and
- hunting resources and game animal habitats.

This Law established the State Fund of the State Environmental Monitoring Data, which is a federal information system ensuring collection, processing, analysis of the following data:

- Information contained in the databases of sub-systems of the state environmental monitoring, results of operational control in the field of environmental protection and state environmental monitoring;
- Data of the state recording of objects causing negative environmental impact.

Federal executive bodies empowered to carry out the state environmental monitoring, as well as public authorities of the constituent entities of the Russian Federation participating in the state environmental monitoring shall submit the information obtained in the course of a respective monitoring to the state data fund. Information included into the state data bank shall be used by the public authorities, local self-government bodies, legal persons, individual entrepreneurs, citizens in planning and implementation of economic and other activity. Exchange of information within the framework of unified system of the state environmental monitoring, provision of such information to the public authorities, local self-government bodies, legal persons, individual entrepreneurs, citizens is free of charge.

The "State and Protection of the Environment" report will be developed on the basis of information contained in the state data fund and UIISS.

The Ministry of Natural Resources and Environment of the Russian Federation expresses its readiness and explicit intention to cooperate within the framework of the ENPI-SEIS project in the following areas with initial emphasis on the agreed priority themes:

- Design of unified environmental indicators; preparation of the draft document governing application of environmental indicators; development of the experimental report based on environmental indicators to integrate environmental data with data received in the EU countries;
- Organization of regular data flows required for selected indicators;
- Formation of elements of the environmental information system;
- Production of reporting on the state of the environment on the basis of selected (unified) indicators;
- Development of information on the course of the project implementation and achieved results.

Rosstat expresses its interest in cooperation within the framework of ENPI-SEIS project implementation in the following areas with initial emphasis on the agreed priority themes:

1. Development of the harmonized system of environmental indicators within the environmental information system in the region of the European Neighborhood including:

- The list of indicators;
- Meta-data;
- Classifications;
- Methods of data collection and distribution;
- Joint publication of EU countries and EECCA countries.

2. Use of the advanced technologies to improve provision of data by the countries. For example, SENSE applied by EEA for preparation of State of the Environment Report in 2010 and UIISS in Russia.

3. Capacity building of human resources (thematic workshops, conferences, sharing of experience on application of advanced methodology, distribution of environmental information).

In order to increase the efficiency of use of environmental information in the country and to ensure successful participation of the Russian Federation in the ENPI-SEIS Project resolution of the following issues should be of top priority:

1. Approval of the order of state environmental monitoring (state monitoring of the environment), order of organization and operation of the unified system of state environmental monitoring as well as organization of interagency interaction on its implementation;
2. Wide application of observations on the concentration of fine solid particles and ground level ozone in the state atmospheric air pollution monitoring network; observations should be conducted by modern technical means.
3. Improvement of state accounting of generation, recycling and disposal of industrial and consumption waste, municipal waste and improvement of federal statistical forms on their management.
4. Higher quality of reporting to international nature protection organizations at various levels, ensuring timely provision of data by the countries as well as accessibility of environmental information available in data bases for the EEA countries and countries participating in ENPI-SEIS project.
5. Implementation of works at the federal level to systematize application of environmental indicators that have been developed and approved by the Russian Federation, and their wide application in national environmental reports and statements. For environmental indicators that are not being developed at the moment, it is necessary to work out methodologies for their calculation on the basis of federal statistical observation forms and administrative information as well as develop proposals on the collection of information missing but required for calculation with due consideration of international classifiers.
6. Application of experience of municipal systems of environmental observation using automated control stations via implementation of a pilot project with the engagement of other countries taking part in ENPI-SEIS project.

Involvement of the Russian Federation in European environmental cooperation provides grounds to believe that its integration into ENPI-SEIS project would be successful and effective.