

Education for Sustainable Development: Russian-Swedish Project

RUSSIAN SUSTAINABILITY NewsLETTER



Special Issue. May 2011

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On May 25, 2011 the head of the Ministry of Natural Resources and Environment of Russia made a presentation to the Federation Council on improving the legislation in the field of environmental protection. In his report Minister **Yuri Trutnev** said: "We are creating a system of instruments, introducing long-term incentives to move to the principles of sustainable development, minimal impact on the environment, and improved utilization of natural resources." Yuri Trutnev informed the senators on the eight draft laws developed by the Ministry. He stressed that a new design of environmental legislation is being created.

The valuation system of negative impact on the environment is changing, making it objective and encouraging enterprises to conduct "green" modernization. A waste management system is created that enables businesses to develop and introduce the experience of sorting, recycling and reuse of waste in accordance with market needs. A model of the elimination of accumulated environmental damage is introduced, enabling businesses to take part in this work. Russian citizens receive the opportunity to get acquainted with objects of the national natural heritage. The environmental safety in connection with use of subsoil resources in sea areas is ensured, and the risk of marine pollution from oil spills and transportation of oil and petroleum products reduced. A Unified State Environmental Monitoring System is created, which includes 14 separate types of monitoring, which increase the efficiency of decision making by using a single data stock. The efficiency of state environmental control rises and the sanctions against violators of environmental laws are intensified. Voluntary environmental audit is introduced, which allows companies to use advanced features in obtaining loans, financial transactions, shaping their image as a "green" company.

According to Trutnev: "The package of bills proposed by the Ministry of Natural Resources and Environment of Russia creates a new shell for the legal regulation of environmental protection in the Russian Federation - one that is modern, harmonized with European legislation and based on international experience." The Minister stressed that conditions are created for the modernization of the Russian economy, increasing its competitiveness as well as reducing the amount of current and accumulated pollution. "We are confident that the adoption of these laws creates better conditions for economic development, improves people's health and makes our country cleaner and even more beautiful," said Yuri Trutnev.

Russia needs a "green border"

Russia needs to build an environmental barrier on its borders to help reduce the damage caused by transboundary environmental emergencies, the head of the Ministry of Emergency Situations, **Sergei Shoigu** declared on May 27, 2011.

"The threats that now exist in the world - the events in the Gulf of Mexico, as well as Fukushima, and the accident on the river Songhua - all of this requires building an ecological barrier along the border of our country. Of course, it will be expensive, and not for one year, but this must be done," said Shoigu at the RIA Novosti press conference on the results of the expedition of the Russian Geographical Society (RGS) to assess the radiation situation in the Far East after the accident at Japanese nuclear power plant Fukushima-1.

"We need to have every opportunity to intercept these threats, promptly notify people if necessary, that is, to take appropriate measures to ensure the safety of the population of our country," the minister added. According to him, this is in particular about the installation of laboratories in the rivers flowing into the territory of our country from abroad, and a system of airspace control. Moreover, Shoigu reminded that it has not yet been ascertained what the consequences were of the bombing of bridges across the Danube in Serbia with munitions of depleted uranium. Our final idea is to offer the society, the government to establish such ecological boundaries," said the head of the Ministry of Emergency Situations, adding that "over the next years maybe this concept will come into use among our environmentalists, our scientists and ministers."

Earlier the head of Rosatom, **Sergei Kiriyyenko**, speaking at the same press conference, said that Russia needs a system of ongoing monitoring of the environment on the borders of the country, since data on the situation are needed not only at the time of accidents and incidents. "I would fully support this idea, we should build a continuous monitoring system," Kiriyyenko said.

Shoigu noted that he would like the monitoring network to be established at all "hazardous areas" on the Russian border, in particular, at all rivers flowing into the territory, and all border areas, where there is radiation and chemically hazardous objects. According to him, many questions have already been solved under the agreements with, in particular, the Russian Hydrometeorology Committee, the Ministry of Natural Resources and Rosatom. Shoigu also said that the early warning system established on instruction of the president after the tsunami in Southeast Asia "worked quite successfully." "I would like us all to, in accordance with the initiative of the RGS, produce a tentative plan or program by the end of the year, and offer it to all departments," said the minister. He added that such a program could become part of one of the federal programs lead by the Ministry of Natural Resources or the Ministry for Emergencies.

The first phase of the complex RGS expedition started April 22, 2011 from Vladivostok; during 28 days the expedition continued from Vladivostok to the strait between the Japanese islands of Honshu and Hokkaido, and then along the Kuril Islands to Petropavlovsk-Kamchatsky. At this stage the main focus was on studying the movement of radioactive substances and the hydrometeorological situation. After the devastating earthquake in Japan on March 11 and the subsequent tsunami, at NPP Fukushima-1 "was recorded a series of accidents caused by failure of the cooling system. As a result of the incidents at the nuclear power plants several leaks of radiation were revealed, forcing the authorities to evacuate people from the 20-kilometer zone around the plant. Later, information appeared about the discovery of radioactive elements in some parts of Japan, including isotopes of iodine and cesium in the air, sea and drinking water, as well as in food.

Environmental management in Russia: Roshydromet

In accordance with the Russian Federation Government Resolution of July 23, 2004 № 372 "About the Federal Service for Hydrometeorology and Environmental Monitoring," as modified by the decree of the Government of the Russian Federation dated May 29, 2008 № 404, Roshydromet is a federal executive authority performing functions in providing public services in the field of hydro-meteorology and related fields, environmental monitoring, pollution, public supervision of work on active impact on the meteorological and other geophysical processes. Rendering of public services in hydrometeorology and related areas, environmental monitoring, and its pollution is carried out by Roshydromet in the manner prescribed by the Government of the Russian Federation.

Roshydromet in this sphere of activity ensures the fulfillment of the Russian Federation's obligations under international treaties, including the Convention of the World Meteorological Organization, the UN Framework Convention on Climate Change and the Protocol on Environmental Protection to the Antarctic Treaty.

The principal activity for Roshydromet as an authorized federal executive authority in the field of environmental monitoring and pollution is to ensure citizens' right to accurate information about the state of the environment as embodied in Art. 42 of the Constitution of the Russian Federation.

Roshydromet operates directly and through its regional offices in collaboration with other federal executive bodies, executive bodies of subjects of the Russian Federation, local authorities, public associations and other organizations.

Roshydromet's activities are based on the international exchange of hydrometeorological and other information about the state of the environment on a global level. The Russian Government decree of February 8, 2002 № 94 confirmed its obligations arising from Russia's participation in the WMO Convention, including on the international exchange of hydrometeorological observational data and the implementation of the functions of the World Meteorological Center in Moscow.

The mission of Roshydromet is to ensure the hydrometeorological safety of the Russian Federation and the provision of public services in the field of hydrometeorology, related areas and monitoring of environmental pollution and aims at achieving the following national goals:

- improving the quality of life of the population;
- ensuring high rates of sustainable economic growth;
- capacity-building for future development;
- raising the level of national security.

The Hydrometeorological Service operates according to the following principles:

- global and continuous monitoring of the environment and its pollution;
- unity and comparability of the methods of observation of the environment and its pollution, as well as methods for collecting, processing, storing and distributing the resulting observation data;
- safety of the works on active impact on the meteorological and other geophysical processes;
- integration with national and international systems for environmental monitoring of pollution;
- effective use of information on the actual and projected state of the environment and its pollution;
- ensuring the reliability of the information on the environment and pollution, and its accessibility to users (consumers);
- compliance of the hydrometeorological service with the protection of public health, environmental protection and environmental and hydrometeorological safety.

Ensuring protection of the vital interests of the individual, society and state from the effects of natural hazards and climate change (providing hydrometeorological safety) is Roshydromet's first strategic goal.

The activities in the framework of achieving this goal are primarily aimed at reducing losses from hydrometeorological hazards - natural processes and phenomena which, by their intensity (strength), scale and duration have or may have a striking effect on people, agricultural animals and plants, objects, economy and environment. This activity is carried out primarily by the immediate transfer of emergency information about the risk of development of hydrometeorological hazards to the National Center for Crisis Management of the Unified State System of Disaster Management and Emergency Situations, as well as through the transfer of storm alerts and (or) storm warnings to the population, government executive authorities and local self-government. An urgent task that remains is to improve the effectiveness of active impact on the hydro-meteorological and geophysical processes and phenomena. Above all, this refers to measures to protect the public, recreational centers and economic facilities from avalanches, active intervention with the aim of improving weather conditions during events and sport competitions, as well as hail protection of agricultural crops.

Roshydromet's second strategic objective is to *provide the population, government bodies, sectors of the economy, the Armed Forces of the Russian Federation, the united state warning system and disaster management, with hydro-meteorological and heliogeophysical information, as well as information about the state of the environment and its pollution.*

Activities to achieve this goal include:

- providing information on actual and projected state of the environment, its pollution to the population, public authorities, sectors of the economy, the Armed Forces of the Russian Federation, the Unified state warning system and disaster management;
- Formation of public information resources in the area of hydro-meteorology and related fields (meteorology, climatology, agricultural meteorology, hydrology, oceanography, heliogeophysics), environmental monitoring, pollution.

Roshydromet's third strategic objective is *hydrometeorological support to Russian Federation activities in the Arctic, Antarctica (in the Antarctic Treaty areas) and the World Ocean.*

Roshydromet's activities under this objective are aimed primarily at developing a network of collection points for hydrometeorological and heliogeophysical information and the transmitted overview and forecast information on the environment in the areas of the Arctic, Antarctic and in the waters of the oceans.

Recently, this activity has become particularly important in connection with the solution of the problems of exploiting natural resources in these regions.

The implementation of the mission and achieving the strategic goals are done by carrying out the following main tasks of Roshydromet:

- providing public authorities, the Armed Forces of the Russian Federation, as well as the public with information about the actual and projected state of the environment and its pollution;
- providing emergency information about natural hazards, actual and projected rapid weather changes and pollution that may threaten life and health of the population and damage the environment;
- organization of weather forecasting, water availability, crop yields, global and regional climate change;
- maintenance of anti-avalanche service;
- participation in the prescribed manner in the conduct of hydrometeorological expertise of development projects;
- harmonization in the prescribed manner of hydrometeorological and heliogeophysical provision for the navigation of vessels, aircraft flights, the work of astronauts in space, conducting rescue operations;

- Research hydrometeorological and heliogeophysical processes in the atmosphere, on the land surface, in the oceans, the Arctic and Antarctic, as well as near-Earth space in terms of study and prediction of the radiation situation, as well as the condition of the ionosphere and the Earth's magnetic field;
- public records within its jurisdiction, of surface water and maintenance of the state water registry for surface water bodies in accordance with the legislation of the Russian Federation;
- maintaining the Unified state data base on the state of the environment and its pollution;
- ensuring the functioning on the territory of the Russian Federation, of points of hydrometeorological observations and retrieval system, collection and dissemination of hydrometeorological information;
- state air monitoring (within its jurisdiction);
- state monitoring of water bodies in terms of surface water bodies (within its jurisdiction);
- state monitoring of the continental shelf in the order determined by the laws of the Russian Federation (within its jurisdiction)
- directing and controlling the activities of the Russian Antarctic Expedition.

The Hydrometeorological Service of Russia has a long and glorious history. It is important for understanding the formation of environmental management systems in the country and for building strategies for sustainable development. Special material devoted to the history of the Hydrometeorological Service of Russia is expected to appear in one of the following editions of *RUSSIAN SUSTAINABILITY NewsLETTER*.

Who is who in Russia: Roshydromet



The head of Roshydromet is **Alexander Vasilyevich FROLOV**.

He was born September 2, 1952 in Nivnoe village in Bryansk region. In 1974 he graduated from the Faculty of Geography at the MV Lomonosov Moscow State University, specializing in oceanography. In 1979, he completed postgraduate studies at the Hydrometeorological Research Center of the USSR (USSR Hydrometeorological Center). Candidate of Physical and Mathematical Sciences (1980) in geophysics (the physics of the sea).

From 1979 to 1999 he worked in the weather center of the USSR (since 1992 the Hydrometeorological Center of Russia) as a junior, then senior researcher and later head of the laboratory and then deputy director for scientific work. In 1999 he was appointed Director of the Hydrometeorological Center of Russia. From 2001 he was the Deputy Head of Russian Federal Service for Hydrometeorology and Environmental Monitoring. Since 2010 he is the Head of the Federal Service for Hydrometeorology and Environmental Monitoring..

Chairman of the National Committee of the Russian Federation for UNESCO International Hydrological Programme (since 2004). President on oceanography of the IOC UNESCO / WMO Joint Commission on Marine Meteorology and Oceanography (since 2009), representative of the Russian Federation in the Interstate Council for Hydrometeorology of the CIS countries (from 2010).



Deputy head of Roshydromet **Valery Nikolayevich DYADYUCHENKO.**

Born April 21, 1947 in Berdyansk, Zaporozhye region. In 1971 he graduated from the NE Bauman Moscow Higher Technical School. Radio engineer by profession. Candidate of Technical Sciences.

From 1971 to 1976 he was an employee of Bauman Moscow Higher Technical School. From 1976 to 1980 he worked at the Central Committee of Komsomol. From 1980 to 1983 he worked in the apparatus of the USSR State Committee for Hydrometeorology. From 1983 to 1988 he was the Secretary of Party Committee of the USSR State Committee for Hydrometeorology. From 1988 to 1993 - Rector of the Institute of Continuous Education and Professional Hydromet. From 1993 to 2004 - Secretary of State, Deputy Head of Russian Federal Service for Hydrometeorology and Environmental Monitoring. Since 2004 he is the Deputy Head of the Federal Service for Hydrometeorology and Environmental Monitoring, and Chief State Inspector of the Russian Federation for supervision of the works on active influence on hydrometeorological and other geophysical processes.

The following issues are under the immediate supervision of the Deputy Head of Hydromet V N Dyadyuchenko:

- Organization of research and development activities, improving the efficiency of the research activities;
- Organization of marine operations, as well as operation and navigation safety of the research fleet's ships;
- Development of tools, methods and organization of work on active influences on the meteorological and other geophysical processes;
- Organization of state supervision of works on the active influence on the meteorological and other geophysical processes;
- Interaction with the chambers of the Federal Assembly of the Russian Federation on issues within the competence of Roshydromet;
- Organization of works in the Federal Target Programs (FTP) "Creation and development of geophysical monitoring of the territory of the Russian Federation 2008 -2014", "Risk reduction and mitigation of natural and man-made disasters in the Russian Federation until 2010", and well as the sub programs under the FTP "World Ocean" and the thematic area "Development of meteorological service for air navigation" (in terms of development of weather radar systems) of the FTP "Modernization of the unified system for air traffic in the Russian Federation (2009 - 2015)";
- Roshydromet's use of weather radar information as well as information from meteorological, oceanographic, natural resource space systems;
 - Organizing and coordinating heliogeophysical works;
 - Direct the work of the commission on international travel;
 - Direct the work of the licensing commission;
 - Organization of publishing activities;
 - Direct the work of the Scientific Council on "Studies of hydrometeorological processes and the seas of Russia, Arctic, Antarctic and Oceans (Marine Council);
 - Direct the work of the Scientific Council on "Active influences on meteorological and geophysical processes";
- Organizing tenders for the supply of scientific and technical products.



Deputy head of Roshydromet
Igor Anatolyevich SHUMAKOV.

I A Shumakov, born in 1970, higher education, graduated from the Moscow Economic-Statistical Institute in 1993 with a degree in Economic Sciences and Management and Control Systems.

Served in the Armed Forces of the USSR between 1988 and 1989. Worked in governmental and non-governmental organizations since 1992. Has worked in the Ministry of Natural Resources and Environment of the Russian Federation since 2008. From October 2008 to March 2009 as Deputy Director of the International Cooperation Department, from March to June 2009 as Director of the Department of state policy and regulation in the field of technological and nuclear safety of the Ministry of Natural Resources and Environment. Holds the post of Adviser to the Federal Minister for industrial and nuclear safety since June 2009.

The following issues are under the immediate supervision of the Deputy Head of Roshydromet I A Shumakov:

- Organization of the work on ensuring the functioning of the state network for monitoring environmental pollution;
- Organization and development of environmental pollution monitoring systems, including those for the Arctic and Antarctic;
- Organization of work on the hydrometeorological service and integrated environmental monitoring during the preparations and conduct of the XXII Olympic Winter Games and XI Paralympic Winter Games in Sochi 2014, the Universiade in Kazan (2013) and the APEC 2012 summit (Vladivostok) ;
- Direct the work of the Scientific Council on "Monitoring of environmental pollution";
- Organizing tenders for the supply of goods, products and services for public use (under the supervised FTPs);
- Organization of the work on the FTP "Dealing with the consequences of radiation accidents for the period till 2010", "Providing nuclear and radiation safety in 2008 and during the period until 2015", "Socio-economic development of the Chechen Republic for 2008-2011".



Deputy Head of Roshydromet
Iskender Abdulkhakovich YAKUBOV.

Holds the post since November 2004, previously served as head of planning, financing, accounting and reporting of Roshydromet's federal property, State Counselor of the Russian Federation 2 class.

Issues under the immediate supervision of the Deputy Chief Hydromet IA Yakubov are:

- Organizing and improving the planning system, financial and material resources, business and economic activity, wages, accounting and control in the Roshydromet system;
- Organizing investment activities and capital construction;
- Development and implementation of assessment methods to prevent damage and benefit in branches of the economy from the use of hydrometeorological products and information on environmental pollution;
- The social sphere in the Roshydromet;

- The use of federal property;
- The welfare, organizational and technical support of the central apparatus;
- Communication with the Board of the Central Committee of the All-Russian union of air navigation workers, as well as the Russian tripartite commission for regulation of social and labor relations;
 - Organization of work to implement the thematic area "Development of meteorological service to air navigation" of the FTP "Modernization of the unified system of air traffic in the Russian Federation (2009 - 2015)";
 - The Department of security and special communication;
 - Mobilization activities;
 - Roshydromet logistical support
 - Organizing tenders for the supply of goods, products and services for state needs;
 - Lead the balance commission of Roshydromet;
 - Lead the work of the certifying commission of Roshydromet.

Allocation of responsibilities in the Ministry of Natural Resources and Environment

On May 3, 2011 Minister **Yuri Trutnev** signed an order on the distribution of responsibilities between the Deputy Ministers of Natural Resources and Environment. In accordance with this order, five Deputy Ministers oversee the work of the departments of the Ministry as well as the agencies and services subordinated to the Ministry of Natural Resources and Environment.

The areas of responsibility of **Sergey Donskoy** (appointed in 2008) are: Department of economics and finance, Department of state policy and regulation in the field of geology and mineral resources, Federal Agency for subsoil resources management (Rosnedra).

Simon Levy (appointed in 2008) oversees and monitors the activities of the Department of state policy and regulation in the field of water resources, the Department of state policy and regulation of hydrometeorology and environmental monitoring, the Federal Agency for water resources (Rosvodresursy) and the Federal Service for hydrometeorology and environmental monitoring (Roshydromet).

In April 2011 **Rinat Gizatulin** was appointed Deputy Minister appointed; the corresponding order was signed by Russian Prime Minister Vladimir Putin.

R. Gizatulin provides control and coordination of the Department of state policy and regulation in the field of environmental protection and ecological safety, the Department of international cooperation at the Ministry of Natural Resources and Environment, and the Federal Service for supervision of natural resources management (Rosprirodnadzor).

Vladimir Melnikov (appointed in 2010) is responsible for the Department of state policy and regulation of hunting and wildlife.

State Secretary, Deputy Minister **Nikolai Popov** (appointed in 2008) implements the routine management of the operations of the Legal Department.

Teacher training seminar on ESD

In the middle of May 2011 a three-day seminar on the development of education for sustainable development for instructors in higher education in Russia was held in Moscow, in the building of the MV Lomonosov Moscow State University. The seminar was the next event in the framework of the Russian-Swedish project on education for sustainable development.



On the first day of the seminar, the participants were addressed by the scientific supervisor of the Russian-Swedish project on Education for Sustainable Development, the Dean of the Geography Faculty of Moscow State University Academician of the Russian Academy of Science Prof. **N S Kasimov**.

The seminar was attended by Russian teachers of higher education (universities, academies, etc.), experts in the field of environmental policies and related areas. Among them were many of the country's leading experts on sustainable development and education for sustainable development, professors and heads of research and training units. Along with the recognized leaders in this field the seminar was attended by young teachers. Besides teachers from Moscow higher education, the seminar was attended by guests from St. Petersburg, Vladimir and Makhachkala.

The aim of the seminar, as well as other similar activities of the project consisted in helping to ensure the rising potential participation of the Russian professional environmental community in the transition to sustainable development in the country by mastering the achievements of Sweden and other countries and regions advanced in this respect.

Objectives of the seminar:

- direct acquaintance with the achievements of Sweden and other advanced countries and regions in the world in the field of sustainable development;
- assessment of the potential and possibilities for adaptation of positive international experience of sustainable development to Russian realities;
- increased contacts between citizens of Russia and Sweden, and the structures of civil society in our countries in the field of cooperation for the transition to sustainable development and making use of the potential of education for sustainable development;
- involvement of seminar participants in a more active creative participation in the provision of Russia's transition to sustainable development.

Along with the lectures, the format of the seminar included workshop activities (working in small groups, presentation of results, general discussion), mutual interaction between participants and systematic feedback, including special questionnaires. Despite the saturation of the main part of the program, the workshop included a tour of the Vorobyovy Gory("*Sparrow Hills*") and a visit to the environment center of the same name.



The Swedish teachers (O. Mont, M. Svanström and S-E Österlund - in the center of the picture) and the participants made a tour of the educational environmental center "Vorobyovy Gory", the first of its kind in Moscow.

The tour was conducted by the center's Director, O A Klimanova (to the right).

The seminar program was designed specifically for the ongoing project by leading Swedish and Russian experts in the field of education for sustainable development under the guidance of project coordinators **S-E Österlund** (Luleå University of Technology) and **A A Pakina** (MV Lomonosov Moscow State University). The basis of the workshop were lectures delivered by Swedish teachers: Associate Professor **Magdalena Svanström**, Chalmers University of Technology (Gothenburg), Professor **Oksana Mont**, Lund University and Professor **Maria Ignatieva**, Swedish Agricultural University (Uppsala). Part of the lectures were presented by Russian professors: Professor **Y L Mazurov** (MV Lomonosov Moscow State University) and Associate Professor **V A Uledov** (Russian Academy of National Economy and Public Service under the President of the Russian Federation).



At the conclusion of the seminar Swedish project coordinator Sven-Erik Österlund presented certificates to the participants from the Swedish Environmental Agency, signed by Mr Åke Mikaelsson and Russian Academy of Sciences academician N S Kasimov.

In the photo: S-E Österlund (Luleå University of Technology) and an active participant of the seminar, Professor Uma Nabiyeva from the University of Dagestan.

This seminar was the first of its kind. Upon completion of the seminar, an anonymous evaluation of all its major parameters was conducted. The seminar participants appreciated the event and made many specific proposals for the development of the cooperation of professionals of the two countries in the field of education for sustainable development. These proposals will be carefully studied and taken into account when planning future activities in the Russian-Swedish project.

Sources: Ministry of Natural Resources and Environment of Russia, Roshydromet, Rosprirodnadzor, RTN, other official sources, own information.