



Instilling a Love for Nature

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How and when does one learn to appreciate nature? How does one become aware of being a part of a living organism called planet Earth? Of course, during childhood, when the desire to do something good with friends is strong and when studying the nature of one’s native land, improving the appearance of the schoolyard and space around one’s home and protecting rivers and lakes becomes a fascinating endeavor. Precisely such was the concept of the “We Are in Charge of the Future” Program.

The goal of this Program, which is scheduled for 2007-2008 and is being implemented by Alcoa Foundation in cooperation with Russia based Alcoa companies (Metallurgical Plant in Belaya Kalitva, Rostov Region; Metallurgical Plant in Samara; and SCI Vostok in Lubuchany Settlement, Chekhovsky Raion, Moscow Region) and its Russian partner – the Fund for Sustainable Development – is to promote sustainable development in areas in Russia where the company’s facilities are located.*

* For more details about the “We Are in Charge of the Future” Program see article “A Program of Caring for the Future” by E.Bondarchuk and L.Chernyshova printed in Issue # 7 of *Ecology and Life*, 2007, pp. 32-34



Young ecologists analyze the quality of water in Seversky Donets River with the help of a field laboratory kit (children's environmental camp near Belaya Kalitva)

The Program has been designed and is managed by the Fund for Sustainable Development (FSD) and is based on the techniques, methods and materials of the Russian telecommunications project Environmental Commonwealth (Institute of Ecological Soil Sciences) and the project Clean City for Children (Departments for Education and Youth Affairs of the City of Pushchino, Moscow Region).

The project Environmental Commonwealth, the first environmental Internet project based on Russian sources, has been in existence for 10 years and has been joined during this time by over 250 educational organizations from

Russia, Byelorussia, Kazakhstan and Ukraine. In the course of this project, a system of distance environmental education for schools and advanced teacher's training courses has been successfully developed and introduced into practice. The main idea of this project is to facilitate joint environmental research and conservation activities of the participants through an ongoing process of information exchange with the use of telecommunications. The key event of the project – the National Internet Conference “The Nature of Russia will be Preserved by Children” will take place on the project's Website in 2008 for the tenth time. It will allow students to present the results of their studies without leaving home, to receive guidelines from professionals in the field, and to learn about the accomplishments of their peers in other regions.

In March-April 2007, over 65 schoolchildren and 41 teachers from 19 schools and 8 after-school education centers (environmental and biological, natural history, children's creativity, as well as orphanages and rehabilitation centers) from Samara, Belaya Kalitva and Lubuchany settlement attended master-classes organized by the projects Environmental Commonwealth and Clean City for Children; and 16 educational institutions were provided with certified school laboratories for conducting chemical tests of water and soil.

In the spring of 2007, a contest of projects was held for organizations whose staff had attended master classes and who were known for their active work with youth on selected areas. The winners in this contest, 12 organizations, were awarded grants for a total amount of 1,534,798 rubles. The projects they proposed involved studying and monitoring small rivers, springs and lakes and cleaning their banks; improving nature monuments (Mountain Karaul and Tsaryov Burial Mound); creating environmental trails (in Belaya Kalitva and Lubuchany); planting trees and shrubs in school yards; managing household waste; and conducting environmental lessons. Over one thousand children took part in good deeds organized under the Program helping their native land to become cleaner and better.



Scouts from Cossack School in Belaya Kalitva conduct analyses of water from local springs

In the summer of 2007, environmental camps and expeditions were organized in which schoolchildren became acquainted with local flora and fauna, learned to measure and analyze the composition of water in water bodies, obtained basic knowledge about soil and methods of its study, and also assisted local protected nature areas.

In a camp near Belaya Kalitva set up by the Zapovedniki Ecological Center, 36 students of 5th-8th grades from 10 local schools studied the properties of over 50 species of plants, became acquainted with over

30 species of birds, learned to write standard descriptions of soil horizons, and analyzed water in an artesian well, a spring and in Seversky Dvinets River. The children were guided by Yu.Sevruk from the Ecological Center who is also the head of the Methodology Section of the Children's Creativity Center in Belaya Kalitva; S.Vishnevetskaya, resource specialist from the Children's Creativity Center in Rostov; and FSD consultants M.Rykhlikova and I.Martynenko.

Young conversationalists from Middle School # 9 in Belaya Kalitva and their teacher N.Shiltsova studied early spring flowers that grow in the outskirts of their city, and took water samples from wells, artesian wells, springs and rivers. The children conducted quite complicated lichen indication analysis (identifying air quality by the condition of lichen) and ecological soil studies. Soil tests from the 55-year-old schoolyard showed that it was free from saline, was neutral and required organic fertilizers. The young project participants also became concerned about the issue of trash removal and recycling – they believe that it can be resolved by separate waste collection, waste recycling, building a disposal plant in the city, increasing public awareness about the environment, and introducing resource-saving techniques.

The members of BOYAN Regional Archeological and Ethnographical Youth Public Organization from Shakhtnyii Settlement carried out a whole range of activities under the Program: over 40 schoolchildren and college students went on a 140-km kayak expedition along the rivers Belaya Kalitva and Seversky Donets; cleaned over 65,000 square meters of river and spring banks and made environmental descriptions of these water bodies; built an environmental camp; conducted environmental lessons for schoolchildren; and created a film about their activities.

A team of scouts from Cossack School # 4 from Belaya Kalitva, headed by their teacher A.Teptsov, went on one-day trips during which they collected a wealth of material about the condition of the environment around the city, analyzed water in springs and rivers, located unauthorized dumps, and cleaned tourist camp sites near the river and in the forest from debris.

The area around Lubuchany settlement is known for the springs at Rozhaika River. The students of the middle school in the settlement studied the condition of the springs, the river and their banks and the composition of the water and arrived at the conclusion that they were in need of protection. The children cleaned 10 springs, planned the route of an environmental trail, prepared information billboards, and conducted a poll in the community that showed that public information and conservation activities should be carried out on a permanent basis. As a result, interaction was established with the local authorities and special lessons were conducted in the school.

Another area of activities carried out last summer was a study of the impact of dioxins from waste incineration and lead (one of the components of exhaust gas) on human health. One of the key problems is the lack of awareness among the public about environmental issues. Thus, for example, 55% of adults and 90% of students of 5th-11th grades know nothing about dioxins and there is no information about this substance in their textbooks.

For 10 days, students from the school in Lubuchany and from several schools in Pushchino lived and worked in a camp whose motto was "Learning to Live Anew" organized at a biodynamic farm "Live Earth" located not far from Pushchino. Under the guidance of G.Sapozhnikova from Ivolga After-School Education Center in Pushchino and A.Borisova, a teacher from the school in Lubuchany, the students became acquainted with agricultural activities on the farm, studied the local flora and fauna, analyzed the soil and water bodies, and prepared plans for their future ecohouses. The quite extensive training program was altered with active recreation activities.

In the neighboring settlement Molod (Chekhovsky Raion), over 60 children from the local school and orphanage took part in site improvement activities during the summer.

In Samara, students of School # 133 guided by their teacher S.Malinovskaya went on an expedition to Blue Lake, a nature monument of a regional level. The goal of the project Blue Lake – Revival of Local Traditions was to organize ongoing monitoring of this nature monument and to make sure that it was properly used for recreation and educational purposes. The children developed and partially fulfilled a program of improving the area around the lake and increasing awareness of vacationers (they printed leaflets about the history of the Blue Lake and the environmental project and provided information on the rules to be followed on the area surrounding the lake) and held a contest for the local youth entitled "Who Knows More About the Blue Lake?"



At a presentation of the project "Building an Ecohouse" at the summer environmental camp "Learning to Live Anew" organized at the biodynamic farm "Live Earth" for schoolchildren from Pushchino and Lubuchany

An environmental camp was set up near the lake, during which the members of the environmental team of students and teachers from School # 133 in Samara (Sergiyevsky Raion, Samara Region) analyzed the water in Blue Lake and Karasinoye Lake and in two springs; cleaned and improved 1.5 hectares of adjacent land and built and installed tables and benches. The local administration became interested in the work of the environmental team and offered support - a dump in a local settlement was removed, as well as the ruins of an oil-pumping station. The project promoted a revival of national traditions – the majority of the local population is Chuvash. A

organizes for geography and biology seminar devoted to the activities of the environmental camp was teachers from schools in Kirovsky District of Samara.

Under the project "Monitoring Small Rivers – Volga River Tributaries", 20 young ecologists from School # 162 in Samara and their teachers I.Konstantinova and N.Birukova went on 23 expeditions to small rivers. During these expeditions, they took water samples from 20 tributaries of the Volga River and with the help of a field laboratory kit (received under the Program) analyzed 208 water samples. They took water samples from rivers Krymza, Ussa and Chapayevka at riverheads and estuaries to track indicator dynamics and to try to reveal the reasons of their changes. They also analyzed water from the Volga River at different locations and from Kuibyshevsky Canal. The hydrobiont content was also studied. In their reports, the students noted that although all water indicators in rivers Bolshoi Kinel, Kon-Durcha, Surgut, Syzranka and Tisherek did not exceed maximum admissible concentrations, local residents complained about obvious changes that had been taking place for the past 7-10 years, such as decelerating flow, water stagnation, water blooming, appearance of a specific odor, and changes of hydrobiont species composition and population (with prevalence of species capable of surviving in contaminated water). On the whole, from May through October 2007, the participants in the "We Are in Charge of the Future" Program took over 450 measurements of water and 60 of soil; conducted 54 lessons devoted to environmental topics; and carried out over 20 conservation activities (removed trash from river banks, cleared springs, planted trees and shrubs in school yards, created and hung posters explaining the need to protect rare plants; trained younger children; prepared environmental trails; and improved areas around nature monuments).

In the autumn, project participants began processing collected data; and 15 research papers by schoolchildren from Samara, Belaya Kalitva and Lubuchany written under the "We Are in Charge of the Future" Program were presented to the IX National Conference "The Nature of Russia will be Preserved by Children". In 2007, a total of 118 works of schoolchildren from 12 regions of Russia and 2 regions of Byelorussia were submitted for this conference.

In March 2008, the winners will come to Moscow to the prize-awarding ceremony. In the summer of 2008, new projects will be launched that will involve new protectors of nature – this time elementary school students, children from kindergartens and disabled children.