Environmental education for sustainable development: Perspectives from Russia

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Abstract. The paper is devoted to the issue of developing environmental education in Russia with the purpose of ensuring sustainable development of social and natural environments. In particular, the papers focuses on the place of environmental education in the educational system of Russia, discusses main provisions of the federal state educational standards, very briefly reviews the key challenges to environmental education in Russia in the context of sustainable development, and analyses possible application of environmental education, for instance in education of children with limited health opportunities.

1. Introduction
One may observe that the concept of sustainable development has become very much linked to the issues of ensuring the quality of environmental education, which falls within the greater discourse on education for sustainable development [1]. Despite the paper focuses on the educational system of Russia, it is not possible, in my opinion, to consider environmental education solely as an area of general education guaranteed by the state. No, it is a lifelong process that involves a great number of factors to consider and steps to be made. At the same time, the period of general education is highly important in the formation of a personality [2]; therefore, I devote all my attention to the issues of environmental education for sustainable development, focusing solely on the Russian general educational system. This paper provides a brief summary of the main characteristics of environmental education in Russia and discusses the key challenges.

2. Ecological and Environmental Education: USSR & Russia
In the USSR, the exact translation of “environmental education” was not widespread. The concept of “ecological education” was used, “which could not help narrowing the range of socio-natural systems and phenomena that make up the subject of educational activity, largely linking it specifically with the environment as a natural science discipline” [3]. Thus, in this paper we assume that these two terms are the same.

In 1994, on the basis of a number of Decrees of the Government of the Russian Federation (1993), the course “Ecology” was introduced into the curriculum for the senior classes of all Russian schools. In the mid-1990s, requirements for results of environmental education were formulated in the Provisional State Educational Standard of General Secondary Education (the educational area “Ecology”). In 1998, the course “Ecology” for high schools of the Russian Federation was excluded...
from the federal part of the curriculum. This happened within the overall trend of weakening attention to environmental problems on the part of the state and society. In the second half of the 1990s, the status of those state structures was lowered that had been dealing with environmental issues and contributing to the development of [4].

3. Current Aspects of Environmental Education

Let’s consider the current aspects of environmental education in educational institutions in the context of sustainable development [5]. As mentioned earlier, during the first half of the 90s, the subject “Ecology” was introduced into schools as compulsory. However, in the second half of the 90s, the situation dramatically changed. Currently, the pedagogical experience accumulated earlier in the field of school environmental education is not sufficiently demanded and is often used only in the process of extracurricular activities.

For the development of environmental education in Russia, in my opinion, a transition is needed to the environmental education system, which should take into account practices of successfully implemented projects by schools in cooperation with environmental NGOs, modifying the content of subject areas in the context of sustainable development.

Currently, the subject “Ecology” is an optional subject in high school, and it is not popular. According to a number of teachers and experts, a compulsory special subject in school is necessary for high-grade environmental education, which requires research on the effectiveness of various educational programs and textbooks. The importance of environmental education in the interests of sustainable development in school institutions is confirmed by the need to include the basics of environmental knowledge into the federal state standards of basic general education in accordance with the decree of the President of the Russian Federation (No. 889 dated June 4, 2008) [6], as well as the document “Basics of the state policy in the field of environmental development of the Russian Federation for the period until 2030” (April 30, 2012) [7].

It is important to note that environmental education for sustainable development is a process that lasts throughout life, from early childhood to higher education and adult education, and goes beyond formal education. Since value systems, lifestyles, and attitudes are formed at an early age and later, education for children is of particular importance.

The role of assistance in educating students as environmentally and socially responsible citizens, who are able to take into account aspects of sustainable development in their work and daily life, is given to the Russian schools and educational institutions within the greater scope of sustainable development. The Russian educational institutions should educate students on environmental issues and sustainable development, foster responsible attitudes and interests, ensure the creation of a holistic school environmental management system, encourage students to actively participate in practical steps to reduce the negative environmental impact, etc.

4. Federal State Educational Standards

The main requirements for the results of environmental training of students are laid down in the federal state educational standards of general education. Raising respectful attitude to the nature of the country, awareness of the integrity of the surrounding world, mastering the fundamentals of environmental literacy, the elementary rules of moral behavior in the world of nature and people, norms of health-saving behavior in the natural and social environments are provided at the elementary school level (the subject area “The World around Us (Social Studies and Natural”) [8].

Fostering responsible and careful attitude to the environment; mastering the ecosystem cognitive model and its use in order to predict environmental risks to human health, safety of life, environmental quality; awareness of the importance of the concept of sustainable development are covered in the main school in the subject area “Natural Sciences” (Biology, Physics, and Chemistry).
Forming an environmental culture of schoolchildren orients students to new values, life meanings, and ways of environmental-oriented actions and behaviors that change the attitudes determined by the consumer society and ensure the development of co-evolutionary spiritual attitudes in the post-industrial society [9].

The basics of ecological knowledge are introduced in the federal state educational standards of basic general education. High requirements are put forward to the results of education in this area. But today, the meta-subject and personal requirements relating to environmental problems are not supported by the requirements for specific disciplines and extracurricular activities that are respectively unattainable (for example, the formation of environmental thinking). One of the main weaknesses is that there is no system for introducing principles of sustainable development into the school subjects in Russia [10]. The subject “Ecology” is an optional subject in high school, and it is not popular. According to experts, a compulsory subject is necessary for a full-fledged ecological education at school, which would focus on the issues of sustainable development. In my opinion, this requires: (i) organizing advanced training of teachers in conditions of the contemporary information environment and modification of pedagogical technologies [11]; (ii) introducing changes in the part of advanced training of heads of educational organizations [12] in the context of changing the content of general education, especially in terms of its “greening”.

5. Environmental Education for Children with Disabilities

Environmental education can be considered as a means of social development of children with disabilities [13]. In particular, the role of NGOs is enormous. The program “Perspective” implemented in the Novosibirsk region can serve as an example as an additional educational program of ecological and biological orientation that meets the requirements set by the Ministry of Education and Science of the Russian Federation to original educational programs for children and adapted for disabled children. The experience of organizing a special form of extracurricular employment, such as children’s participation in an online distance contest, could also be a very good practice. From the 2007/2008 school year, the students of 5-11 grades have been participating in the competition programs of the All-Russian Internet game “I want to Know Everything”, held among the “home-study” schools (currently there are 17 such schools in the Russian Federation) [14].

6. Conclusion

Thus, this brief overview clearly demonstrates that there is a weak system of environmental education existing in Russia, even despite presence of the necessary legal framework. In my perspective, it is of high importance to develop a policy framework for improving environmental education in Russia with the aim of sustainable development of social and natural environments. This necessity is also supported by the monitoring of the needs of society conducted in the Federal State Budget Scientific Institution “Institute of Education Management of the Russian Academy of Education.”

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