

# **Sustainable Development and Environmental Education**

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## **I. INTRODUCTION:**

Development and environment have become a critical issue especially in the context of the modern race towards industrialization. We want the sustainable development so that we can gift the beauty and treasures of the environment to the next generations. "The nature and education are similar, because the education transform the man and, through this transformation, create nature" (Democrat). Environmental education and sustainable development goes through various stages of formal and non formal education. It is based on social sciences and humanities, education programs must aimed the learning to conserve the nature and a better use of resources (Peters, 2003). It aims to human awareness of the existence of natural and social environment, empowering its proper of the relation human-nature-community and formatting an environmental conduct.

Today the environmental crises has reached such a massive proportion that if we continue with our rate of destruction, the future generations would not have a livable environment, they would be faced a shortage of natural phenomena. If it is within our powers to make the world a pleasant place to live in for ourselves and our descendants or else to exploit nature and the environment, to dump wastes into the rivers, lakes and oceans, to cut down forest and pollute the atmosphere with obnoxious gases, to utilize natural resources thoughtlessly and there created scarcity(S.K.Chahal, 1994). The United Nations Conference on Environment and Development in Rio de Janeiro in June 1992 stressed on the linkage between global environment and development and declared that in poor countries,(i)Diarrheal diseases that result from contaminated water kill about two million children and cause about 900 million episodes of illness each year,(ii) Indoor air pollution from burning woods and charcoal endanger the health of 400 to 700 million people,(iii)Dust and soot in city air cause between 300,000 and 700,000 premature deaths a year,(iv) Soil erosion can cause annual economic losses ranging from 0.5 to 1.5 percent of GNP, (v) A quarter of all irrigated land suffer from salinity,(vi)Tropical forests the primary source of livelihood for about 140 million people are being lost at the rate of 0.9 percent annually Indeed. Environmental problems have multiplied and changed character during the past decades.

The sustainable development requires the States to ensure that they develop and use their natural resources in a manner which is sustainable. Achieving these major objectives it can be made only through complementary actions to all educational factors like school, family, society and the complex extracurricular activities to ensure the climate of these interactions with beneficial influence in shaping the personality of students.

## **Environmental Education**

Environmental education is not limited to ecology or to the study of natural sciences. Learning about living organisms, their habitat, and how they interact with each other and with the environment in which they live, is an important part of environmental education, but is not all. Environment as a subject of environmental education includes not only the nature but also the society, culture, economy and policy, environmental education is therefore related to the ecological education.

In carrying out environmental education have to be respected the principles of addressing the environment in its totality natural and artificial, technological and social, economic and political, cultural and historical. It is a continuous process, beginning at preschool and continuing through all formal and non-formal stages, Exploration of the major environmental problems from local perspective, regional, national and international, so that students to know the environmental factors also from other geographical regions, Focus on current and potential environmental problems, taking into account their trend in history, Promoting values and local needs, national and international to prevent and resolve environmental problems to discover symptoms and real causes of environmental problems and promoting cooperative learning.

Environmental Education puts students in direct contact with nature in order to develop love for all life forms. Presentations and analysis of environmental problems begin, usually, with a discussion of the causes of phenomenon and ends with positive alternatives and possible ways of solution.

Obviously, for people to participate actively, intelligently and beneficial to the process of administration, development and environmental protection must be educated since the school banks to deal with environmental problems to be able to face the environmental problems in the current context. Harsh reality and the problems of modern society require a redefinition of objectives in education and the education in science and the environment. The contemporary education in the field of environment should be characterized by several

important aspects: To focus not only on the classical approach of the environment and its protection, but also on the human being in context of a healthy environment; To change people's attitudes about environmental protection, meaning the state exceeded their declarations and training in order to effectively engage in such actions; The school programs to be designed to lead to a passive knowledge to active interaction with the environment, to be translated theory into practice. The changes that should occur to education at all levels of education would mean *restructuring the education content*, (plans, programs, textbooks, teaching-learning-assessment strategies), *to promote teaching strategies* that are based on investigation, testing, decision making, active involvement and to study the *"human and environment*, environmental quality and quality of life, is very important the human relationship with nature. All the information that pupils have when come to school about environment are empirical. In school students accumulate large amounts of knowledge, which have to be directed, ordered, and structured in such a manner as to make the student able to understand certain phenomena, changes occurring around it, in the environment and to get them to respond by an adequate behavior. Therefore in the preparation for the lesson, the teacher must be concerned by the systematic training of concepts, to develop mental schemes of the students and to enrich them.

Environmental education should be started in the family, continued in kindergarten, school, university etc. This is because a real protection of nature will be possible only when the people will change their mentality and will be aware that they live because of nature and not vice versa. We cannot live without it; even we invent any "tricks". If we take this into account, the environmental problems will be acknowledged and internalized and the effects will be visible. In general, while a passerby on the street threw down a package with the pretext that "there are still others who threw garbage, what I threw is not seen, we will not have a clean environment. Everyone must have a position on this issue in question and to appreciate our common goods. In this way, the experts' advice is to organize various activities with environmental goals for a deeper knowledge of the environment, field trips in nature, seminars, workshops with a big number of participants (not only for specialists and specialized teachers), because to protect the nature means to protect the very own lives and everyone health. In formal contexts, environmental education can be achieved through any type of activity: at school - during the biology hours by introducing elements of nature protection (knowledge of the main rare plants and animal species, endemic species, protected trees, species of living fossils etc.), extra-school, scientific, literary, artistic, arts, sports etc.

The achievement ways are various: observations, experiments, science stories, drawings, practical activities, walks, hikes, excursions (pupils learn to know the ecosystem, relationships between organisms and the environment), viewing slides, motion games, interest guidelines, collections, exhibitions, entertainment, watching TV, expeditions, camps, ecological plays, contests. The achievement in formal education for environment and sustainable development is possible in different ways, which involves interdisciplinary approaches. These ways range from the simple introduction of environmental concepts in traditional disciplines to complete their integration around a draft environmental action, passing through convergence of disciplines that have some affinity for structure and methodology. The biggest part of the current educational programs is missing, but often they do not recognize the modern educational concepts based on participation, research and testing (Al. Ionesco et al., 1989).

The current era brings notes of real drama in people's lives and in everything what is about life and nature. Ecologists from the entire world agree that the number one problem of mankind is not the intensification of natural resources, but the protection of nature. Examining the human-nature relations is concluded that the man is currently the biggest enemy of nature that nourishes and protects it. This is done by: Irrational exploitation of natural resources, very often excessive, and this because of the empiricism, ignoring the laws of organization and function of ecosystems; The use and introduction into the circuit of toxic or of hard recyclable materials or non-recyclable wastes in natural ways; Creation of artificial ecosystems by obtaining the necessary quantities of different products and this without knowing the optimal or maximum limits of this development. Restoring the normal balance man-environment is possible through the use of resources of environment and protection of nature, so in fact protecting nature, locally, regionally or globally. Both paths require knowledge of environmental laws, organizational scientific based measures, and environmental education of the whole population to develop environmental awareness.

Therefore, protection of nature appears as a feature of human society, as a practical matter of utmost importance. For the maintenance and protection of environment we should consider several major objectives: A rational planning, a proper choice and quality management of resources provided by the surrounding nature; Protection and preservation of all that is endangered in collections, plantings, reservations, to knowledge the productive capacity of ecosystems and of the species and to take measures to prevent such use which does exceed capacity. Of course, in achieving these objectives numerous difficulties appear. One of this links to the wrong mentality. It should be outlined that to preserve the nature as a whole does not mean non-use, but it means a rational use of resources. Another difficulty is the lack of basic information regarding the state of resources, capacity of regeneration.

This difficulty could be overcome only by developing research that can reveal two main aspects, namely: to determine exactly the carrying capacity of ecosystems and their productive potential. Only way we can know what and how an ecosystem can produce, what and how we can draw from it without damaging reserves or how to manage it as better possible to produce more. If a man wishes to survive on Earth and not in a foreign life's aspirations, he must understand that he needs not only ample food and industry products, but also a healthy environment, breathable air, drinking water, stable soil, charming landscapes and the diversity of plants and animals of which is linked his evolution. In the developed countries the glass, paper, plastic is successfully recycled, they use the washing machine without, detergent, bicycle trips are more popular than which are made with the car, are paid huge fines for illegal fishing or hunting and others, but unfortunately these things are far from reality in our country. One of the reasons is that our school program includes a few hours of ecology. As I noted above, the environmental education should start at school, even earlier - from kindergarten and take place throughout life, supported by the values of society. Small children should learn to protect nature. Unfortunately, the focus today is on sciences and technologies information and, often, ecology is neglected.

### **Objectives of Environmental Education**

The objectives of environmental education on international level can be pointed as-

- The cultivation of love for the Earth and all elements which are used in them: water, plants, animals, etc.
- To increase the desire to protect, respect and protect nature by involving children in character and demonstration activities.
- To develop skills of research, exploration, environmental investigation.
- Knowledge of organism's and phenomenon's from environment and their characteristics.
- Enrichment of active vocabulary with words from the environment area.
- Acquisition of some conducts rules to ensure the balance between human health, society and the environment.
- Knowledge of plants and animals protected by law.
- Research remediation methods of environmental state using students in activities of waste recycling, the sanitation of towns, etc.
- Awareness of the need to save water, electricity, wood, etc.
- Take negative attitudes on those who violate environmental rules and laws.

Taking into account this finalities, at international level have been designed and implemented a series of environmental projects, such as:- *World Eco-school program* – “Eco school College” Project, program supported by Ministry of Environment and Water and the National Authority for Tourism, World Foundation for Environment Education and coordinated by the Carpathian-Danubian Genecology Center. - *The World LEAF Program* "Learning about forest" coordinated by the Carpatho-Danubian Genecology Center. International Program of education on Forests, LEAF is addressed to teachers and students who wish to have something to say regarding the future of environment. - The "*Young reporters for the environment*" program - YRE - initiated by the World Foundation for Environmental Education (FEE), coordinated by the Carpatho-Danubian Genecology Center.

### **Sustainable Development**

Sustainability became catch-phrases of 1960s when it was found that the pattern of economic development in the industrialized countries has led to depletion of non-renewable resources at an alarming rate and caused fouling of atmosphere resulting in ozone layer depletion causing global warming and climate changes. The World Conservation Strategy (IUCN, 1980) and the Earth Summit (1992) places additional emphasis on sustainable development and suggested that the maintenance of essential ecological process and the life support system, the preservation of genetic diversity, and the suitable utilization of species and eco-systems is needed to achieve sustainable development through the conservation of living resources. The Brundtland Report, 1987 was the original blueprint for sustainable development, pushed forward the concept of sustainable development. According to this report, “sustainable development is the development that meets the needs of the present without compromising the ability of the future generations to meet their own needs.

Thus sustainable development has focused on environmentalism framework that grants priority to the issue of ecological degradation. One can argue that environmental concerns are the cornerstones of the sustainable development.

Theoretically, one may say that sustainability is a process of change in which exploitation of resources is made consistent with the future as well as the present. In the context of sustainable equity and optimization are also to be considered seriously. It is meant for developed and developing countries. The developed countries sight the global environment problems on the population growth, agricultural production and the exploitation of natural resources of the developing nations as main impediments for the sustainable development and constantly

demand the developing countries to change their policies (R.Dayanandan, 2006). In fact, a populous country like India cannot be blamed for environmental degradation on the basis of high population growth rate as the maximum emission of carbon dioxide and green house gases in respect to developed countries which consume maximum energy but work as according to sustainable development. Therefore, it is require to the knowledge the concept of sustainable development.

### **Concluding Remarks**

Environmental sustainability is one of the most important components of sustainable development. The comprehensive development is possible meeting with the working policies, based on sustainable development. Environmental education can easily impart the concept of sustainable development to the thrust of the nation.

Environmental education should be started in the family, and then continued in kindergarten, school, university etc. This is because a real protection of nature will be possible only when the people will change their mentality and are aware that they live in nature and not vice versa. We cannot miss it, any "tricks" we invent. If we take this into account, environmental problems will be acknowledged and internalized, the effects will be visible.

In general, while a passerby on the street threw down a package on the pretext that "there are still others who threw garbage, I threw I do not see, we will not have a clean environment. Everyone must have a position on the issue in question and to appreciate our common goods. In this respect, the experts' advice is to organize various activities with environmental goals for a deeper knowledge of the environment, output in nature, excursions, seminars, workshops with wide participation (not only for specialists and specialized teachers), whereas *to protect the nature means to protect the very lives and health of everyone.*

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