

ENVIRONMENTAL EDUCATION IN TURKEY

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ABSTRACT: There are ongoing training requirements of people throughout their lives. This requirement is at an extreme level with regard to the environment. The environmental movement in Turkey was begun in the second half of the 1970s. During this period, for the first time, it's not powerful and effective, although it is not in the name of environmental values begun to be replaced removed to reveal the reactions. Environmental education; improving the environment in all sectors of public awareness, grown in environmentally conscious individuals to ensure the settlement of persistent behavior in these individuals, protection of naturally, historical and cultural value, ensuring active participation in environmental activities is defined as taking part in the solution of environmental problems. Article 56 of the 1982 Constitution: "Everyone has the right to a healthy and balanced environment, improve the environment, protect the environmental health and to prevent pollution of the environment and citizens is the duty of the state" is called clearly contained in our Constitution, the environment we live under this Article, the right to live in a more beautiful setting, it is necessary to ensure that the owners of all individuals. Environmental consciousness of the intellectual, emotional and behavioral dimensions are. In other words, environmental awareness; environmental decisions, the principles, the idea that contain comments, the behavior is transferred to life these ideas and is composed of various emotions regarding all this. Such development of a comprehensive concept is not, of course, it consists of a simple process. It gained momentum with the introduction of human beings interacts with the environment this process continues throughout life. In parallel to developing environmental consciousness, personality development is affected by the interaction of various factors.

Key words: environment, education, air, solid waste, wastewater, global changes, pollution.

INTRODUCTION

Firstly, we can summarize the world's cultural and ecological stages of human development. Early hunter-gatherers are controlled by nature. Next gatherer-hunters affect the environment, but they cannot control. Agricultural people are against to the human nature and human began to control. Industry people increased to control over nature and the nature are adversely affected the nature. The man of the world that it is in harmony with nature and understand the nature to intervene.

Many authors name the 1960s as the decade when environmental education started develop in response to the world's growing awareness about environmental problems. Others believe that environment education grew from movements that existed from the beginning of the last century such as nature study, conservation and outdoor education. In general, the history of the development of the main terms and definitions of environmental education has been studied by different authors. According to Disinger (1983) the term "Environment Education" appeared for the Conservation of Nature and Natural Resources. One of the most widely accepted definitions of environment education was given in the Tbilisi Declaration which was developed at the international conference of environmental educators, sponsored by UNESCO in 1977. There, environmental education was defined as "a learning process that increases people's knowledge and awareness about the environment and associated challenges, develops the necessary skills and expertise to address the challenges, and fosters attitudes, motivations, and commitments to make informed decisions and take responsible action" (UNESCO 1978). According to the Declaration, environmental education is seen as a life-long process that is interdisciplinary and holistic in nature and application. It concerns the interrelationship between human and natural systems and encourages the development of an environmental ethic, awareness, understanding of environmental problems, and development of critical thinking and problem solving skills. Palmer (1997, 1998) defines environmental education as "the process of recognizing values and clarifying concepts in order to develop skills and altitudes necessary to understand and appreciate the interrelatedness among man, his culture and his biophysical surroundings. Environmental education should also include practice in decision-making processes, the development of self-cognition, the formation of environmental ethics and environmental behavior, and the development of skills for environmental assessment.

Giollito et al. (1997) drew a conclusion that although in different countries of European Union the emphasis can vary from one point to another, there are four major aims of environmental education which are 1) the transmission of knowledge 2) the creation of new behavior patterns 3) the development of values, attitudes and skills necessary to protect the nature and the environment and of the complexity both of the environment and the interactions between man and nature.

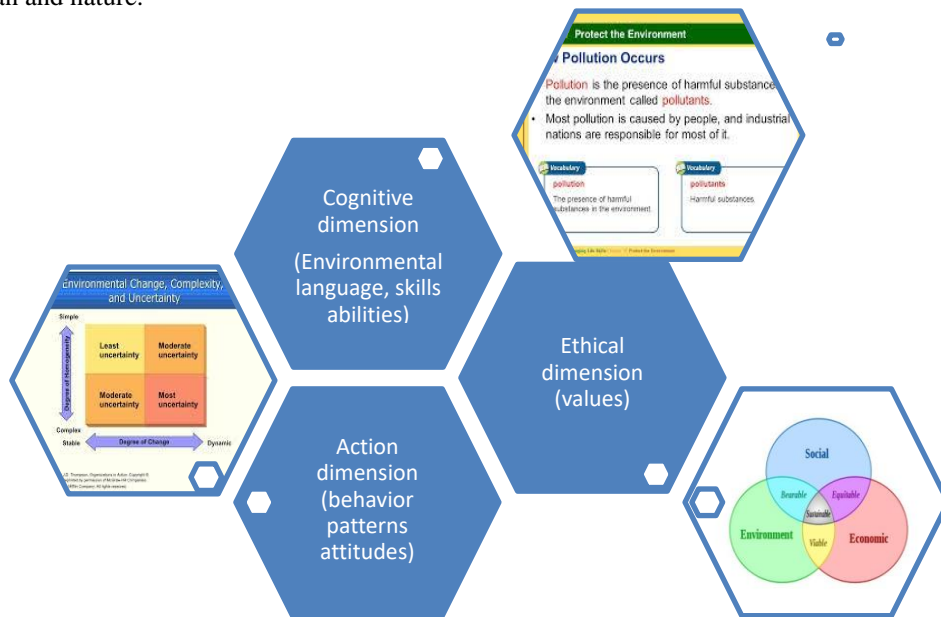


Figure 1. A model of EE by Giollito et al. (1997)

According to Environment education guidelines for Washington schools, there are four goals for environmental education in the state EE should help student:

1. To develop knowledge about the environment and its components as well as understanding of interactions between them.
2. To develop understanding of the importance of social, and natural systems “in supporting our physical lives, economy, and emotional well-being”.
3. To understanding the impact of personal decisions and actions on the environments, and
4. To develop knowledge and skills necessary to maintain and improve the environment.

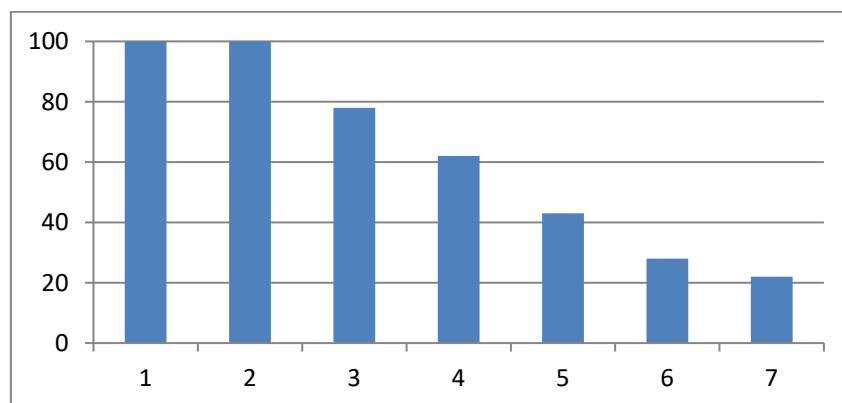


Figure 2. Distribution of environmental educational programs (%) by context in Washington State 1. Resource conservation 2. Recycling programs 3. Preservation of resources 4. Stewardship and management 5. Environmental jobs 6. Cultural and historical issues 7. Economic development

Environmental Issues and Concern: Environmental principles are shown in Figure-6.

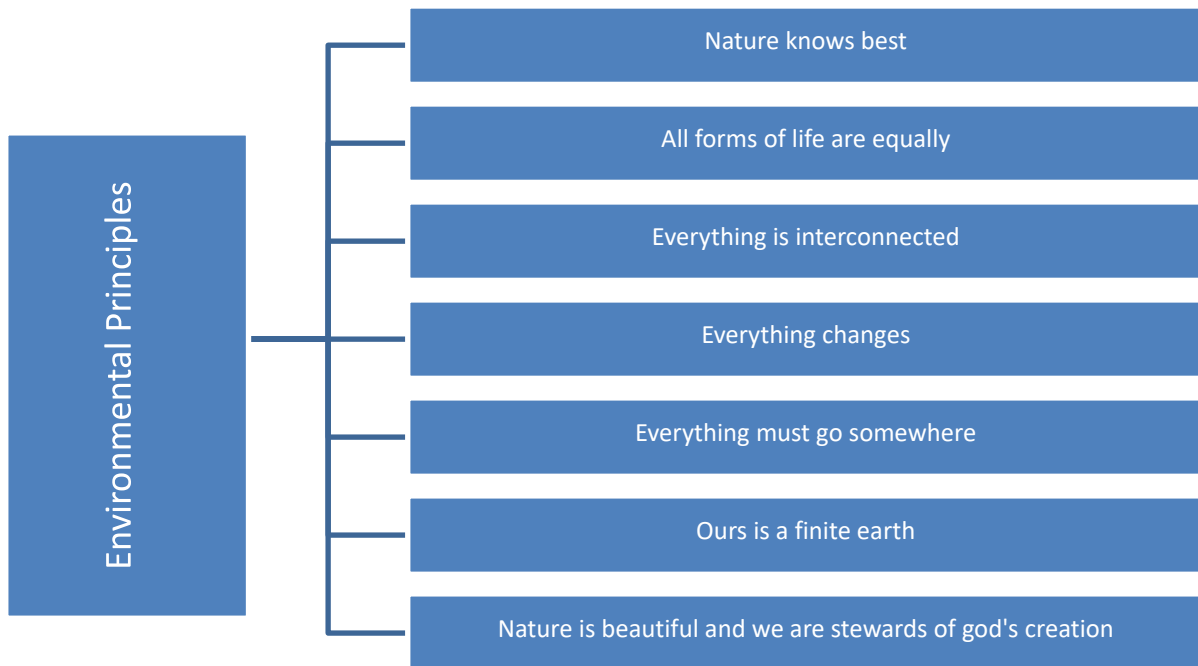


Figure 3. Environmental principles

Today welfare level reached by mankind together with industrialization has brought environmental problems in the world. What are the environmental problems? This is some of the causes and consequences of environmental problems can be briefly summarized as follows:

1. Air pollution: Causes: Consumed fossil fuels, the burning of solid waste, radioactive rays Results: Acid rain, global warming, destruction of the ozone layer, fog formation
2. Water pollution: Causes: Over-fertilization not treated of domestic and industrial waste waters, tanker accidents, chemicals, all pests discharges to the sea. Results: pollution of rivers, mass killings of the creatures living in the sea, drinking of water pollution, increase of epidemics
3. Soil pollution: Causes: Trash and garbage heaps, acid rain, fertilization studies, pesticides. Results: Increased concentration of heavy metals in the soil, the soil's pH value change, to create the source of disease-causing, aesthetic degradation
5. The disappearance of animal and plant species: Causes: Acid rain, the plundering of the rain forest, monoculture agricultural and forestry, to eliminate direct to plants and animals, pesticides. Results: the disappearance of many plants and species, deforestation, being constantly increasing number of natural disasters due to climate change
6. The change of climate: Causes: the destruction of tropical rain forest, unlimited way fossil the consumption of fuel, the use of gas. Results: The formation of the greenhouse effect (global warming), the ozone layer in the earth harmful rays that reach the live
7. Solid Waste Problems: Causes: be consumer society, the disposable, extravagance, sufficiently cannot be evaluated, the lack of education of solid waste. Results: overuse of natural resources, energy and raw materials, depending on the extravagance degree as a result of the use of these resources to come to the point of exhaustion, and underground surface waters have been rendered unusable due to pollution, land polluting substances' harmful caused by inefficient waste and soil creatures living on or in threatening situations to come.

The Environmental Protection Agency has broken down these concerns into four major forms namely Water, Air, Waste and Land, and Climate change.

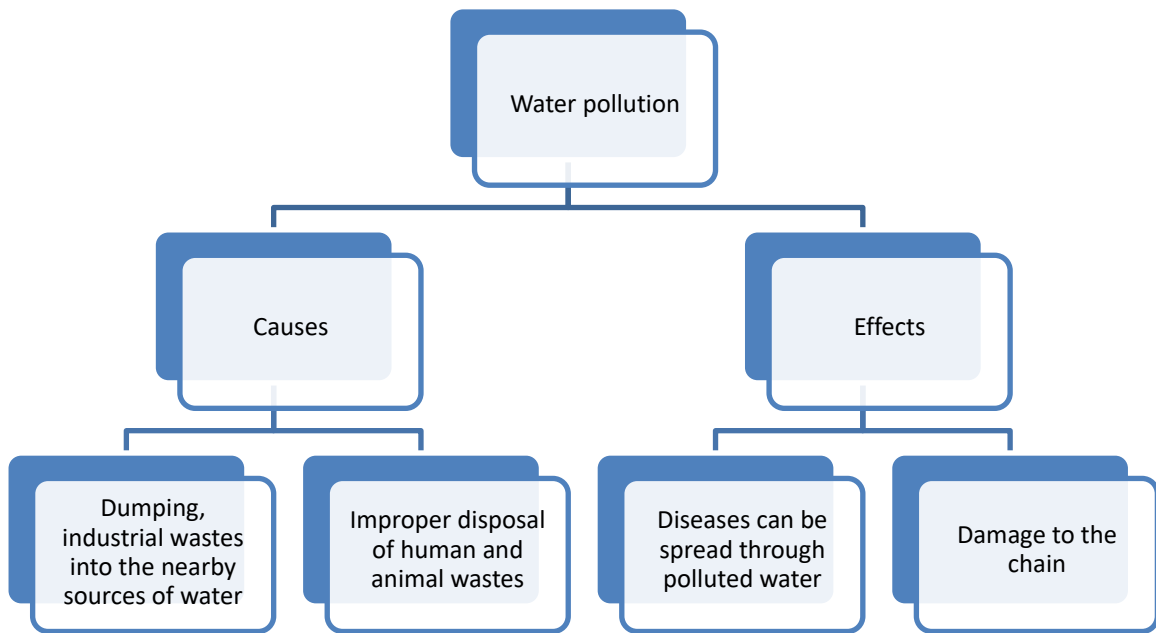


Figure 4. Water Pollution causes and effects

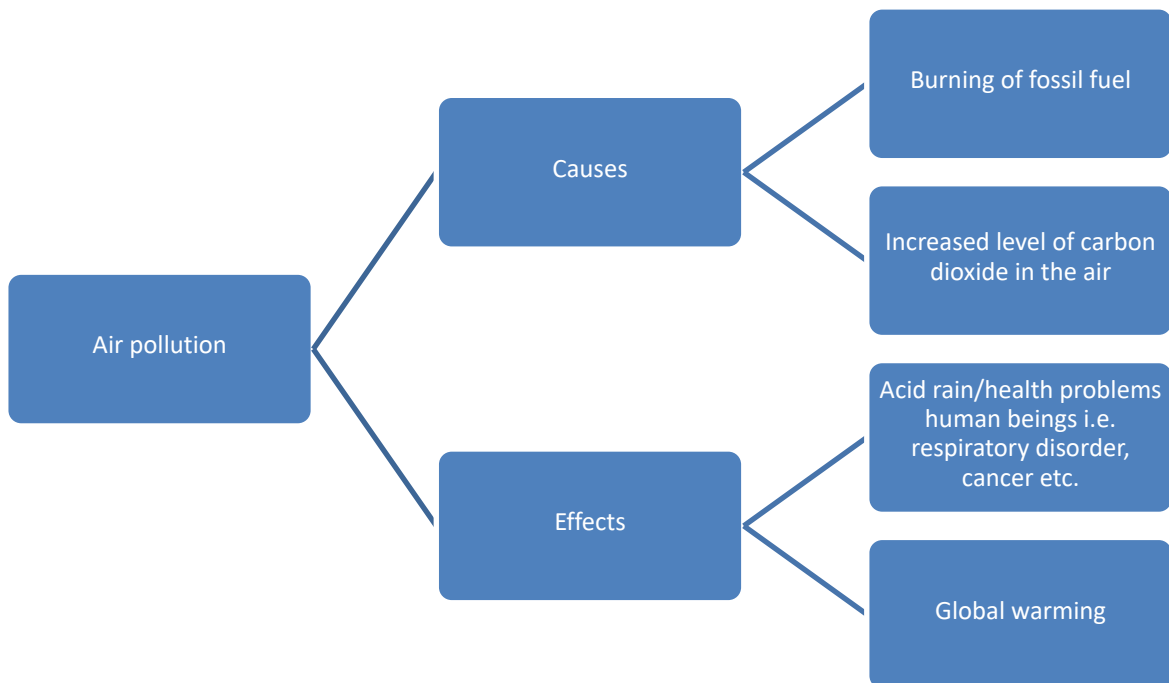


Figure 5. Air Pollution causes and effects

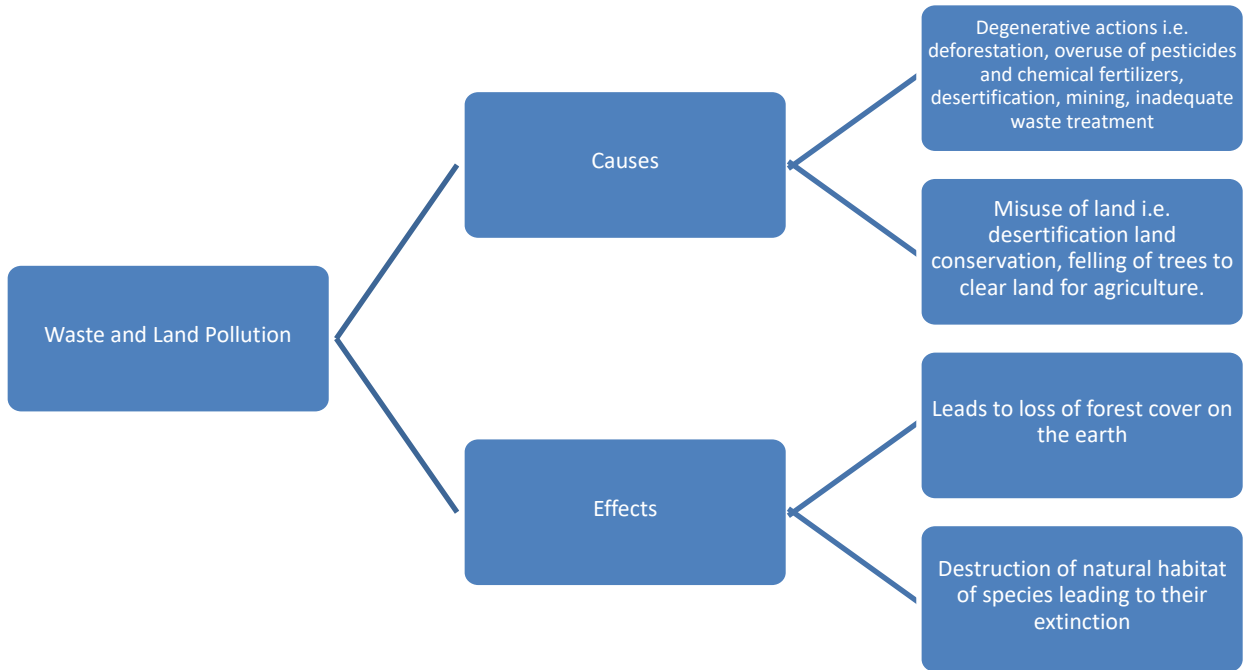


Figure 6. Waste and Land Pollution causes and effects

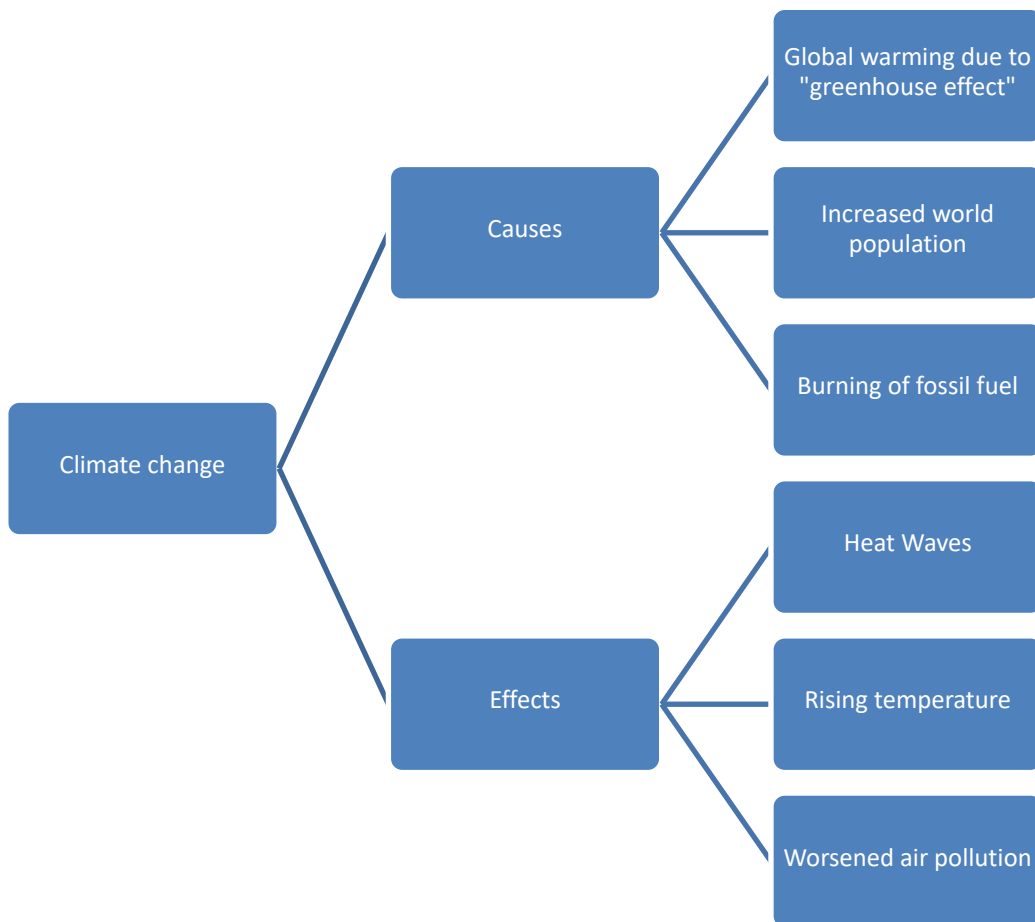


Figure 7. Climate changes causes and effects

What is Environmental education?

The main goal is to develop concern and awareness among world population about the total environment and its associated problems. The objectives of environmental educational are classified as flows:

1. Awareness-acquire an awareness of and sensitivity to the total environment and its allied problems.
2. Knowledge-gain a variety of experiences and acquire a basic understanding of the environment and its associated problems.
3. Skills-acquire skills for identifying and solving environment problems.
4. Attitudes-acquire a set of values and feeling of concern for the environment and the motivation for actively participating in environment improvement and protection.
5. Participation-to provide social groups and individuals with an opportunity to be actively involved at all levels working towards the resolution of environmental problems.



Figure 8. A linear model by Sterling and Cooper (1992).

Characteristics of Environmental Problems and Environmental Education in Turkey

The most important feature of environmental problems is not locally but it is obviously global. The environment issues affect everyone without distinction as religion, language, race, young and old. The role of education in conservation and in addressing the rapidly increasing environmental problems, while improving the environment, is well-known today. Education for the environment is not only a task of formal educational institutions, but also of civic organizations, mass media and local municipalities, which play a large role in increasing public awareness. Environmental problems recognize no artificial boundaries based on geography or ideology.

Environmental education has its origins in the 1960s. Through the decade of the 1970s and into the 1980s, the Environment Education movement grew rapidly. Education concerning environmental problems was recognized at the World Conference on the Environment in Rio de Janeiro in 1972. These emergences are today evident in environment education.

Agents and Environmental organizations:

2. TEMA Foundation (Turkey Combating Soil Erosion, for Reforestation and the protection Foundation)
3. ÇEKÜL Foundation (Foundation for the Promotion and Protection of Environment and Cultural Heritage)
4. TCV (Environment Foundation)
5. ÇEVKOR Foundation (Foundation for Environmental Protection and Research)
6. ÇEKÜD
7. ÇEVKO
8. TURMEPA (Clean Seas Association of Turkey)
9. TUDAV (Turkey Marine Research Foundation)
10. TÜRÇEV (Turkey TÜRÇEV Foundation for Environmental Education)
11. TÜRÇEK (Turkey and the Greening of the Environmental Protection Agency)

Education for the environment is not only a task of formal educational institutions, but also of civic organizations, mass media and local municipalities, which play a large role in increasing public awareness. Environmental problems recognize no artificial boundaries based on geography or ideology. In Turkey, the disciplines dealing with the environment are generally architectural planning, some branches of engineering (environment, construction, chemistry, physics etc.), sociology, economics, biology and geography. There is no systematic approach to environmental education. Environmental education needs a generally accepted definition, since there are different definitions and interpretations. A systemic approach to education on environmental needs must contain: environmental education must be comprehensive; it must include the inter-relations of parts and elements of natural life and global structure; and the problems and causes of pollution must be approached from the point

of view of the relations. Environmental Education is a new way of learning about human relations with the environment. The object of environmental education is focused on the relationship and impact of humanity on the environment. It is the type of education stressing an integrated way of structuring human nature and natural and physical resources. This kind of education must be interdisciplinary, lying social, cultural, economic and scientific studies. It has to provide an understanding of the basis of life, while living in a man-made urban environment, and the development of public life. This education aims to create self-confident, responsible and environmentally conscious people. It promotes new, intelligent ways to conserve and develop the quality of life. It will make future education easier, stressing that human life is biological life on earth, and that people must act emotionally with this biological life, starting from the early years of childhood. The Aims of Primary School Education is to introduce the bio-environment to students, to make them able to establish contact with living things around them and be aware of them; to teach the relationships between all living things in the ecosystem and the effects of the economic structure on these relationships; and, to establish moral judgments. The concepts of environmental education, ways of learning subjects, dealing with problems, and referring to activities in target plans would play a large role in the changing of expected behavior in children. In Turkey, today, at the primary level educational institutions, 'life knowledge courses are taken in the first term and 'social knowledge courses' in the second terms which are called central courses. According to the level of classes, subjects would be selected from protection of soil, water, air; solutions to pollution; ways of giving guarantees for living without risks; and conservation of natural resources.

Secondary school education at this stage has an important place in society, protecting and continuing culture, promoting justice and virtue for a nicer life and training honest people to modernize their life and state. The General Directorate of Secondary Education of the Turkish Ministry of National Education continues to study the implementation of environmental education at this level. The outline of an environmental curriculum will encourage specific action. Students must be able to identify their living natural resources, and be capable of consciously exploiting them for the most appropriate purposes within the framework of the new curriculum.

The leading principles of university education are research must be carried out to develop non-polluting technologies; sources must be used sensibly and equally; biological diversity must be maximized with sensible and intelligent strategies; and, population growth must be controlled for the best application of economic and bio-ecological plans. In university education, field work in different disciplines, research and examinations are most important.

CONCLUSION

Public environmental awareness is considered important for successful environmental protection. There are major shortcomings in environmental education policy in Turkey, which must be eliminated. Because environmental problems are global, global solutions have to be found. Turkey has the needed institutions and legal framework, but the functioning of institutions and implementation is lacking. Environmental education in Turkey can be grouped under three main headings: formal education, informal education and in-service training. Formal education is conducted through environment-related curriculums at the pre-school education, primary, secondary and higher education levels. These programs incorporate general environmental concerns, human-environment relations, environmental issues, as well as the concept of environmental awareness. Informal training involves education of and the raising of conscious in individuals outside the formal educational system. The public in urban and rural settings fall under the purview of informal education. In-service training involves employees, managers and public officials in the public and private sectors. Universities have courses on the environment designed to educate and inform young people. These courses fall under the headings of Ecology, Environmental Issues, Environmental Law, Environmental Philosophy, Ecosystems, Environment and Human and Environmental Studies. The contribution of voluntary organizations is crucial, too, in environmental education. Voluntary organizations in Turkey working on environmental issues include: The Environment Foundation of Turkey, Turkey's Nature Conservation Society, World Wildlife Association, Turkey and the Research Foundation for Combating Soil Erosion Environmental Education, and the Environmental Problems Foundation of Turkey. There are some difficulties to effective environment education in Turkey. These can be summarized as explanation inconsistency of goals and principles in preparing education programs, because of the need for equipment, environmental activities are not practiced, and lack of expert teachers in environmental education. Government and citizenships have various responsibilities for conservation of environment and prevention of pollution. A reason of current environment problem is lack of consciousness and information about environment. A person who has not had environmental consciousness might not perceive people lives in the future.

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