

**Research Article** 

# Environmental Problems, Individual and Social Values; A Strange Dilemma

## Fulya Öztaş<sup>1</sup>, Haydar Öztaş<sup>2</sup>

<sup>1</sup>Selçuk University, Konya-Turkey (ORCID Number:0000-0001-6573-9023) <sup>2</sup>Erbakan University, Konya-Turkey (*ORCID Number:0000-0002-0597-3894*)

#### Abstract

Rapid population growth, the need for economic development, insatiable human needs and the increasing diversification of these needs are seen as the main sources of emerging environmental problems. It is known that social values make significant contributions to the understanding and solution of individual and social environmental problems, and that consumer behavior and environmental policies aimed at protecting the environment largely arise from individual behaviors, and that the attitudes and behaviors of individuals and societies towards the environment are closely related to their traditional values.

This study aims to create an environmental policy based on renewable energies that is reliable, meaningful in terms of environmental values, economically sustainable, ensuring the development and continuation of humanity and other living things, effective and capable of using as much energy as needed, for a sustainable environmental policy that can continue in future generations. and supports the view that its sustainability is essential. It is possible to argue that the essence of all environmental problems lies in the unwillingness of individuals and societies to accept a more modest lifestyle. For this reason, it is possible to say that educators should take responsibility for the environmental behavior of individuals and societies, and that environmentally sensitive consumer characteristics, political values and all environmental behaviors should be the main element of any education to be given.

Received 12 August 2024

Accepted 17 December 2024

Keywords Environmental problems, individuals and societies, ecological balance

## ÇEVRE SORUNLARI, BİREYSEL VE TOPLUMSAL DEĞERLER; GARIP BİR İKİLEM

#### Özet

Hızlı nüfus artışı, ekonomik gelişme ihtiyacı, doyumsuz insan ihtiyaçları ve bu ihtiyaçların giderek çeşitlenmesi, ortaya çıkan çevre sorunlarının temel kaynakları olarak görülmektedir. Toplumsal değerlerin, bireysel ve toplumsal çevre sorunlarının anlaşılmasına ve çözümüne önemli katkılar sağladığı, çevreyi korumaya yönelik tüketici davranışları ve çevre politikalarının büyük oranda bireysel davranışlardan kaynaklandığı, bireylerin ve toplumların çevreye yönelik tutum ve davranışlarının önemli olduğu bilinmektedir. Çevre geleneksel değerleriyle yakından ilişkilidir.

Bu çalışma, güvenilir, çevresel değerler açısından anlamlı, ekonomik açıdan sürdürülebilir, insanlığın ve diğer canlıların gelişmesini, devamını sağlayan, etkin, ihtiyaç duyduğu kadar enerji kullanabilen, yenilenebilir enerjilere dayalı bir çevre politikasının oluşturulmasını amaçlamaktadır. Gelecek nesillerde de devam edebilecek sürdürülebilir bir çevre politikası, sürdürülebilirliğinin esas olduğu

Anahtar Kelimeler Çevre sorunları, bireyler ve toplumlar, ekolojik denge görüşünü desteklemektedir. Tüm çevre sorunlarının özünde bireylerin ve toplumların daha mütevazı bir yaşam tarzını kabul etme isteksizliğinde yattığını ileri sürmek mümkündür. Bu nedenle eğitimcilerin bireylerin ve toplumların çevresel davranışları konusunda sorumluluk alması gerektiğini, çevreye duyarlı tüketici özelliklerinin, politik değerlerin ve tüm çevresel davranışların verilecek her türlü eğitimin ana unsuru olması gerektiğini söylemek mümkündür.

International Journal of Environmental Trends, 8 (2), 67-75.

DOI: not now possible

<sup>1</sup>Corresponding Author Email: <u>hoztas@erbakan.edu.tr</u>

### **INTRODUCTION**

It is possible to say that human-induced environmental destruction has increased significantly in parallel with rapid industrialization and easier transportation since the second half of the last century. Under these conditions, it seems that the sustainability of environmental values is becoming increasingly difficult. Rapid population growth, the need for economic development, insatiable human needs and the increasing diversification of these needs are seen as the main sources of emerging environmental problems. Although there have been significant developments in increasing the diversification of renewable energy sources, the environment is being destroyed, especially due to the increase in the use of rivers and fossil fuels.

The Brundtland Report published in 1987 emphasizes that to ensure the continuity of a sustainable environment in the future, mandatory environmental sanctions and compulsory environmental education starting from the early period should be essential. For a sustainable environmental policy that can continue in future generations, it is essential to create and maintain an environmental policy based on renewable energies that is reliable, meaningful in terms of environmental values, economically sustainable, ensures the development and survival of humanity and other living things, is effective and could use as much energy as needed [1,2].

It is possible to say that social awareness about the causes of environmental problems in individual and social terms and how they can be solved is increasing day by day. Environmental problems need to be understood by all segments of society and solutions must be produced based on community values and universal environmental values [3]. The main source of environmental problems emerging today is the rapid population growth in the world and the inability to adequately meet the vital needs of this unbalanced increase by the resources in the environment where they live. The main reason is that individual demands do not match social values, and individual and social values generally play a decisive role in the emergence of environmental problems [4,5].

Scientific studies reveal that environmental problems are mainly caused by global warming, the energy needs of societies and industry, and problems such as impoverishment resulting from overpopulation growth. Individual and social awareness towards environmental problems is increasing around the world. Global warming and greenhouse gases constitute important items on the agenda. The effects of global warming and greenhouse gases on the earth are widely covered in visual and written media. However, since global warming involves some physical, chemical and biological events, some misconceptions may arise in understanding it. Although the effects of greenhouse gases and global warming are widely included in school curricula, it

is known that some problems are encountered in explaining the basic events related to global warming [6,7].

It is known that social values make important contributions to understanding and solving individual and social environmental problems [8,9]. He concluded that consumer behavior and environmental policies aimed at protecting the environment largely stem from individual behavior. In addition, it is known that the attitudes and behaviors of individuals and societies towards the environment are closely related to their traditional values [8,9].

Today's most complex environmental problem is global climate change and global warming, and although it is known that the problem arises due to irresponsible individual activities and industrial development, it is observed that humanity has difficulty understanding the relationship between human-induced CO2 increase in the atmosphere and global warming, which is probably preparing for the end, and finding a solution. [10]. It has long been known that some environmental problems arise during the production and use of energy obtained from fossil fuels [11]. It is also known that reducing the release of CO2, which is one of the gases that cause global warming and is released into the atmosphere in large amounts, will reduce global climate change. This is only possible by using more "clean energy" resources that respect the environment and do not cause any damage to the environment.

Nowadays, societies are trying to find solutions individually and socially to the environmental problems that arise due to technical development and industrialization. The three main environmental issues that affect our community are global warming, pollution, and the loss of habitats. Global warming is the increase in average global temperature caused by the burning of fossil fuels and is contributing to rising sea levels and extreme weather changes. Pollution is caused by the introduction of hazardous substances into the air and water, which has negative health impacts for people and destroys ecosystems. The loss of habitat is caused primarily by deforestation, where large areas of forest are cut down to create more room for agriculture, resulting in soil erosion and a general loss of biodiversity [12].

However, the irreversible damage caused to the environment by individuals and societies who are developing and trying to benefit from the blessings of technology increasingly is challenging the ecological balances of the earth day by day. To reactivate these negative attitudes and behaviors towards the environment in a positive way, managers and environmentally sensitive organizations and institutions need to make more efforts. Although we see and say what is right individually and socially, it is known that attitudes and behaviors are not in this direction.

The source of environmental problems is the incompatibility of individual desires with social values, and social values generally play a decisive role [4]. Today's most complex environmental problem is considered global climate change, and in 1995, the World Panel on Climate Change (IPCC) reported that the average global temperature has increased by 0.61 F since the end of the 19th century, and the amount of atmospheric CO2 has increased by 0.61% in the same period. It has been suggested that it increased by 30% and reached its highest level in the last 160,000 years [13]. It is known that atmospheric gases such as CO2 are of vital importance in changing the world's climate. The IPCC estimates that global surface air temperature will increase by 1.4 to 5.8 C between 1990 and 2100 [14].

Due to economic development and increasing quality of life, energy use is rapidly increasing in all elements of the environment we live in. Knowing how this affects the living conditions of the individual is important in terms of environmental education. In creating conscious individuals and societies, it is of great importance that all individuals and societies are aware of the negative effects such as global warming that occur due to excessive energy use.

The situation arising from the complex structure of environmental issues causes individuals and societies to not adequately understand the chain of events that lead to environmental problems, and ultimately causes misconceptions about environmental issues. Misconceptions usually arise because of different interpretations of scientific events that have not been taught scientifically. For this reason, failure to understand environmental events correctly constitutes the basis of environmental problems. It has long been known that there are some problems in teaching the energy-environment relationship. [11]. Students' prejudices about the subject make it difficult to teach the subject, and it is always possible to encounter students' misconceptions.

Stern [1] developed a model to examine the relationships between environmental behaviors and individual and social values. Accordingly, environmental behaviors show commitment to reason-based individual and social values. By filtering the individual's values and worldview, those that are compatible with the behaviors and beliefs are adopted. When this conformity turns into activity, environmental problems arise. Values and beliefs can be ignored when vital interests arise. An individual's worldview is based on the experiences he or she has gained throughout his or her life. Kalof [15] showed that whether individuals take responsibility or not in environmental behavior is closely related to individual values. It has been shown that environmentally sensitive citizenship awareness, environmentally sensitive consumer characteristics, political values and all environmental behaviors are closely related to individual values.

Stern [1] divided environmental behaviors into two parts: voluntary behaviors and behaviors with influence. Accordingly, the type of behavior required for the formation of environmental awareness is behavior done voluntarily, and motivation is seen as the main factor. It is believed that these types of behaviors, which are thought to be carried out without any benefit, are done with the thought that they may be harmful to the individual. The New Environmental Paradigm Scale (NEP), proposed by Dunlap & Van Liere [16, 17], shows that the environmental behaviors of individuals and society are closely related to the socio-psychological states of individuals. It has been suggested that different environmental behaviors observed in individuals arise due to similar factors.

In environmental behaviors that occur because of other effects, the motivation of the individual is not in question, and the guidance of environmental influences plays a role as the main factor in the acquisition of such habits. Stern [1] divides these two types of behavior into direct and indirect behavior. Although indirect behaviors related to the environment arise from political influences related to the environment, direct interaction may vary depending on the psychology of the individual, consumer research, and behaviors and environmental activities.

Individuals' perception of strategic and critical thinking techniques regarding environmental problems enables individuals who are sensitive to environmental issues to develop the ability to quickly evaluate complex environmental problems and make decisions. Research shows that the environmental education individuals receive during their education is often not sufficient, and that students do not develop sufficient analysis and decision-making skills on how to act in solving any environmental problem. For this reason, individuals and societies need to reconsider environmental education from a pragmatic perspective in line with misconceptions or alternative views about environmental pollution and global warming at every stage of their

education processes. It is possible to briefly summarize the purpose of environmental education as stimulating individual and social environmental activities, increasing public participation in environmental issues, and increasing the impact of economic, political and social sanctions to make environmental regulations.

### MATERIAL AND METHOD

This study aims to examine and evaluate the contradictory relationships between the individual and society and the environment, which are the main causes of environmental problems. The basis is to evaluate non-quantitative student-environment relations with the opinions and comments of environmental educators.

For this purpose, this study was conducted based on qualitative perspectives and environmenthuman relations, and the paradoxical relationships between the environment, the individual and society were examined in the philosophical dimension.

# **RESULT AND DISCUSSION**

Most environmental problems encountered today are caused by excessive consumption. This situation is clearly seen, especially in developed countries. Changing consumption habits are often ignored by environmental education. However, it is deemed necessary to primarily teach the changing consumption habits of societies and the environmental strategies to be implemented against them. As countries develop, their environmental footprints generally tend to expand, and at this point, controlling consumption is of great importance. For example, there has been a significant increase in fossil fuel consumption due to the increasing energy needs of some developing countries. Accordingly, an increase in global environmental problems has been observed. Curriculum programs regarding the protection of consumable substances need to be carefully reviewed.

Every individual living in society should be aware that nature is regulated by factors that do not have linear relationships with each other, are complex, and are affected by many variables. The critical levels of changes in these relationships are important, and it should be emphasized that changes at these levels can have an impact on the entire balance of nature. For example, when the relationships between all living things in nature are examined, it is seen that the relationships between living things are not linear. If environmental education is tried to be explained with linear relationships, for example, if information is given that a factor will affect only one parameter, this will allow students to be given analyses based on simple cause and effect relationships instead of a complex network of relationships in their education. It may enable them to become aware of what changes climate change may cause and that changes outside their own region may affect students in a non-linear but indirect way over time.

However, environmental education conducted in nature or in educational institutions with an evidence-based approach can contribute to the improvement of environmental education. It does not seem possible to achieve any success in the environment without directly determining a topic, raising individuals' awareness about environmental education, and setting measurable criteria. Including learning as the main factor in environmental education will provide a lot of profit. It is considered important in every respect to direct the focus of what is taught to the positive development of individual behaviours, to put our human values back there and to evaluate environmental values accordingly.

Ecologically, as in the past, it is essential for people to continue their existence in a life cycle that is at peace with nature and does not destroy nature. Creating a globally sustainable life cycle is possible by adopting a lifestyle based on ecological balance and respecting nature. For this reason, sustainable lifestyles of developed countries, which are the main cause of environmental problems and global warming, need to be created in a way that does not harm the living conditions of underdeveloped societies and other living creatures in nature. The environment that individuals and societies will receive is of great importance in protecting nature and environmental values.

The society must believe that they should determine a lifestyle that accepts the importance of the earth at every stage of their lives, starting from the family, without damaging the elements that make it up, and they must put it into practice on a practical level. The main elements of such a complex and mixed teaching system in individual and social life need to be supported and guided by oral and written media such as TV-radio and newspapers. In societies sensitive to environmental values, environmental values always constitute the main component of the agenda. Efforts to develop these values are systematically taken into consideration in schools, homes and workplaces, and all activities are based on the environment.

However, although environmental problems are well known by society in these societies, there are always fundamental differences between scientific environmental values and environmental values adopted by society. Even in developed countries, the failure to determine a definitive environmental policy and the failure to develop a universal education policy with broad participation adopted by all segments of society leads to problems in determining policies to prevent global warming and climate change. In most countries, environmental values and solutions to environmental problems are accepted if they comply with the goals and demands of the business world. Therefore, environmental values are defeated by the demands, demands and insatiable appetites of the business world [17].

As Gandhi said, "the earth can meet everyone's needs, but it can never meet the demands of the greedy." The environment is always tolerant of the maintenance of limited, individual and social lifestyles. However, it is not sufficient to meet the industrial desires and demands of developed countries, which are greedy and ambitious for further growth and expansion. The essence of all environmental problems lies in the unwillingness of individuals and societies to accept a more modest lifestyle.

It is known that developed countries do not make enough technological investments for the onsite destruction and reuse of the waste materials they produce. Instead, they tend to send their waste to underdeveloped countries in exchange for money. The main source of environmental problems is that these countries see environmental values as their own stock areas and economic resources. The most important environmental problems of underdeveloped countries are the infrastructure and environmental problems that arise due to internal migration due to excessive population growth and rapid urbanization. In this context, industrialization and urbanization are seen as the main environmental problems of underdeveloped societies.

Due to poverty, in these societies there is rapid plunder and destruction of the environment to provide economic resources. Societies and countries are producing new master plans for energy use and production in line with their own interests, without adhering to international recommendations. Accordingly, worsening environmental problems have reached a global

alarming level. Today, for a sustainable environment, the focus is on effective production methods that do not harm the environment, distribution, increasing biomass energy, and what measures can be taken against excessive consumption of natural resources, especially in settlements [18-21].

As it is known, under normal conditions, basic energy-related behaviours are acquired through education within the family, and the cultural and social behaviours of citizens are developed and shaped by a family-centred education. There is a close cooperation between energy consumption and environmental sustainability. For this reason, human behaviour, environmental sustainability and economic development should be shaped as the main elements of education [22-26]. Domestic energy consumption by families in residential areas varies significantly according to economic incomes, lifestyles, social and cultural behaviours and socio-demographic structure [27-28]. Education is very important in raising a society sensitive to environmental problems. Based on the spiral expansion, starting from the family, a practice-based sustainable environmental education is important. Therefore, environmental education has an important place in schools and public media. It is known that mostly individuals gain basic knowledge and skills about biodiversity, ecosystem, ecology, environmental issues and a balanced lifestyle among living things in during education (generally biological subjects).

Sustainability should be taken as the main concept, and the education system should be structured accordingly so that individuals and society can develop responsibly towards environmental values. Educational activities to be carried out for this purpose have an important place and enable individuals and societies to become entrepreneurs, to develop their decision-making abilities, to develop their knowledge, collection and evaluation skills, to be creative and productive [29]. It is possible for children who receive sustainable environmental education to participate in the decisions taken by adults in the family or to criticize their decisions, to contribute to them, to take initiative, and to make reasonable suggestions in solving environmental problems [30]. The development of vital thinking skills in environmental education activities can provide individuals with skills in taking initiative, setting goals, decision-making abilities, evaluating information, gaining discussion skills on a topic, and gaining result-generating discussion skills [29, 32].

### CONCLUSION

The attitudes of individuals and societies towards energy use and environmental values are only possible with the formation and development of environmental culture. Environmental education can develop at an early age when individuals focus on basic values such as ecological and biodiversity and develop these values within the framework of a spiral expansion. In this context, programs for the environment and energy consumption need to be implemented and developed within the curriculum and educational programs, starting from pre-school ages. These programs should be structured as individual-centered, and an active role should be given to the students, and their interaction with environmental values should be evaluated as a system in which mutual interest relationships are learned and taught by doing and experiencing.

### REFERENCES

 Stern, P.C. (2002) New Environmental Theories: Toward a Coherent Theory of Environmentally Significant Behavior, Journal of Social Issues, Vol. 56, No. 3, 2000, pp. 407–424.

- [2] Deng, Y.; Xu, J.; Liu, Y.; Mancl, K. Biogas as a sustainable energy source in China: Regional development strategy application and decision making. Renew. Sustain. Energy Rev. 2014, 35, 294–303.
- [3] Schultz, P. W., & Zelezny, L. (1999). Values as predictors of environmental attitudes: Evidence for consistency across 14 countries. Journal of Environmental Psychology, 19, 255-265.
- [4] Karp, D. G. (1996). Values and their effects on pro-environmental behavior. Environment and Behavior, 28, 111–133.
- [5] Dunlap, R. E. and Kent D. Van Liere. 1978. The New Environmental Paradigm: A proposed measuring instrument and preliminary results. Journal of Environmental Education 9, 10-19.
- [6] Arons, H., Francek, M., Nelson, B., and Bisard, W. (1994) Atmospheric misconceptions, The Science Teacher, 61(1), 30-33.
- [7] Boyes E., Chambers M., Stanisstreet M. (1995) Trainee primary teachers' ideas about the 74(5): 555–569.
- [8] Schultz, P. W. (2002a). Environmental attitudes and behaviors across cultures. In W. J. Lonner, D. L. Dinnel, S. A. Hayes, & D. N. Sattler (Eds.), OnLine Readings in Psychology and Culture, Western Washington University, Department of Psychology, Center for Cross-Cultural Research Web site: (http://www.wwu.edu/~culture).
- [9] Schultz, P. W. (2002b). Knowledge, education, and household recycling: Examining the knowledge-deficit model of behavior change. In T. Dietz & P. Stern (Eds.), Education, information, and voluntary measures in environmental protection (pp. 67-82). National Academy of Sciences.
- [10] Dietz, T., A. Dan and R. Shwom (2007) Support for climate change policy: Social psychological and social structural influences. Rural Sociology 72:185–214.
- [11] Solomon, J. (1985) Learning and Evaluation: A Study of School Children's Views on the Social Uses of Energy, Social Studies of Science, 15 (2) 343-371.
- [13] ICC, 1996. Climate Change 1995: The Science of Climate Change. Houghton, J.T., Meira Filho, L.G., Callander, B.A., Harris, N., Kattenberg A., Maskell, K. (Eds.), Contribution of Working Group I to the Second Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge.
- [14] IPCC (2001), Climate Change, The Scientific Basis, Cambridge Univ. Press, 881 pp.
- [15] Kalof, L, Dietz,T, Stern, P. C., and Guagnano, G.A (1999). Race, Gender and Environmentalism: The atypical values and beliefs of white men. Unpublished manuscript, George Mason University, Department of Sociology and Anthropology, Fairfax, VA 22030.
- [16] Dunlap, R.E., C. Xiao and A.M. McCright (2001) Politics and environment in America: Partisan and ideological cleavages in public support for environmentalism. Environmental Politics 10(4):23–48.
- [17] Jacques, P.J., Dunlap, E.R., Freeman, M (2008), The organisation of denial: Conservative think tanks and environmental scepticism, Environmental Politics, 17(3):349-385.
- [18] Stern, P.C (2000) Psychology and the science of human-environment interactions, Am Psychol., 55(5):523-30.
- [19] Kyriakopoulos, G.; Kolovos, K.; Chalikias, M. Woodfuels Prosperity towards a More Sustainable Energy Production. In Track I: Social & Humanistic Computing for the Knowledge Society: Emerging Technologies and Systems for the Society and the Humanity, Proceedings of the 3rd World Summit on the Knowledge Society (WSKS 2010), Corfu, Greece, 22–24 September 2010; Springer: Berlin/Heidelberg, Germany, 2010; pp. 19–25.

- [20] Kolovos, K.; Kyriakopoulos, G.; Chalikias, M. Co-evaluation of basic woodfuel types used as alternative heating sources to existing energy network. J. Environ. Prot. Ecol. 2011, 12, 733–742.
- [21] Chalikias, M.; Christopoulou, O. Factors affecting the forest plantations establishment in the frame of the common Agricultural policy. J. Environ. Prot. Ecol. 2011, 12, 305–316.
- [22] Van Dam, S.S.; Bakker, C.A.; van Hal, J.D.M. Home energy monitors: Impact over the medium-term. Build. Res. Inf. 2010, 38, 458–469.
- [23] Barr, S.; Gilg, A.W.; Ford, N. The household energy gap: Examining the divide between habitual- and purchase-related conservation behaviours. Energy Policy 2005, 33, 1425– 1444.
- [24] Ek, K.; Sfderholm, P. The devil is in the details: Household electricity saving behavior and the role of information. Energy Policy 2010, 38, 1578–1587.
- [25] Naassen, J.; Holmberg, J. Quantifying the rebound effects of energy efficiency improvements and energy conserving behaviour in Sweden. Energy Effic. 2009, 2, 221– 231.
- [26] Ntanos, S., Kyriakopoulos, G.L., Arabatzis, G., Palios, V., Chalikias, M (2018), Environmental Behavior of Secondary Education Students: A Case Study at Central Greece, Sustainability, 10(5):1663 DOI: 10.3390/su10051663.
- [27] Moussaoui, I. De la société de consommation à la société de modération. Ce que les Français disent, pensent et font en matière de maîtrise de l'énergie. Ann. Rech. Urbaine 2007, 103, 112–119.
- [28] Arabatzis, G.; Malesios, C. Pro-Environmental attitudes of users and not users of fuelwood in a rural area of Greece. Renew. Sustain. Energy Rev. 2013, 22, 621–630.
- [29] Repka, P.; Švecová, M. Environmental education in conditions of National Parks of Slovak Republic. Procedia-Soc. Behav. Sci. 2012, 55, 628–634.
- [30] Kandpal, T.; Broman, L. Renewable energy education: A global status review. Renew. Sustain. Energy Rev. 2014, 34, 300–324.
- [31] Daskolia, M.; Dimos, A.; Kampylis, P.G. Secondary teachers' conceptions of creative thinking within the context of environmental education. Int. J. Environ. Sci. Educ. 2012, 7, 269–290.
- [32] Monroe, M.C.; Oxarart, A.; Plate, R.R. A Role for Environmental Education in Climate Change for Secondary Science Educators. Appl. Environ. Educ. Commun. 2013, 12, 4–18.