

# The Ways to Enhance Environmental Awareness in Higher Education Institutions in Algeria – An Analytical Theoretical Study

Guidoum Saliha<sup>1</sup>

## Abstract

*This study aims to identify the means and mechanisms for developing environmental awareness in higher education institutions, as they are among the most important educational institutions in society. These institutions encompass the elite who will lead society in the future and work to promote and develop it in all fields, including the environmental field. Therefore, the university bears the responsibility of fostering environmental awareness among its members through various means, such as: Teaching environmental education, encouraging student environmental clubs, and supporting the organization of environment-related exhibitions. Organizing conferences, seminars, and lectures, promoting volunteer work, and encouraging research in the environmental field. As a leading institution in society, the university cannot stand as a mere spectator regarding the environment in which we live; it must play an active and positive role in supporting environmental awareness and protecting the environment from various threats.*

**Keywords:** *Environment, Environmental Education, Environmental Awareness, University*

**Received: 10-06-2024**

**Accepted: 28-10-2024**

## Introduction

There is no doubt today that the issue of the environment has become one of the most important topics in our era, as a result of scientific development and the phenomena it has produced that have disrupted the ecological system and its balance. This has also led to the emergence of many environmental problems such as air, water, soil, and food pollution, in addition to noise and chemical pollution, the expansion of desertification, and the extinction of many species, etc. All these problems require the world to take action to ensure a safer and higher quality of life.

If these problems are not addressed with wisdom and rationality, our lives will become increasingly complex and deteriorate to the extent that we will be exposed to danger. Since scientific progress is advancing at an even faster pace and cannot be stopped, it is necessary to spread environmental awareness among individuals and educate them on how to deal positively with all these changes and phenomena, and how to avoid as much of their risks as possible with rationality.

Environmental awareness among individuals can reduce the effects and dangers of these problems. Therefore, the international community must move towards spreading it on a wide scale and through various institutions, especially educational institutions from primary schools to universities. The latter, in particular, are important educational institutions responsible for providing society with the necessary human resources of competent individuals who serve their country and protect it from all harm.

Today, we face many environmental risks, and universities bear a great social responsibility in this regard. Hence, awareness must be spread among their members to develop society and improve the quality of life.

Spreading environmental awareness is an effective strategy to foster positive environmental values in society and to raise awareness in order to confront risks and rationalize the use of resources. As one of the most important institutions of society, the university bears this responsibility. Today, it embraces the elite who

---

<sup>1</sup> Faculty of Social Sciences and Humanities, Department of Social Sciences, University – Oum El Bouaghi, Algeria. Email: [saliha.guidoum@univ-ueb.dz](mailto:saliha.guidoum@univ-ueb.dz); [Orcid=0000-0001-7620-0699](https://orcid.org/0000-0001-7620-0699)

will lead society tomorrow. Given the importance and necessity of focusing on this topic, this research paper has been prepared to answer the following questions:

1. What is environmental awareness?
2. What is environmental education?
3. What are the most important ways the university adopts to spread environmental awareness among its students?

### **Objectives of the Study**

The current study aims to:

- Define environmental awareness.
- Define environmental education.
- Identify the most important ways to enhance environmental awareness among university students.

### **Importance of the Study**

The significance of the current study stems from the importance of the topic itself. There is no doubt that we live in an environment that must meet the basic and safe living conditions to ensure a life that is at least acceptable and not threatened by disasters and risks. Since we both influence and are influenced by this environment, our impact must be positive by raising awareness among individuals about the necessity of preserving and protecting their environment from various dangers.

An environmentally aware individual is a true asset to any country. The individual is the most important element in the environment and the one most affected, whether positively or negatively. Therefore, spreading environmental awareness and educating individuals about the importance of preserving their environment and protecting it from risks is of utmost importance, especially in higher education institutions, where the elite, the leaders of tomorrow, and the true wealth of the nation are found.

Today, we are in urgent need of safe air, water, soil, and food, while we are threatened by chemical, radioactive, and noise pollution, as well as desertification. Here, the utmost importance of environmental awareness emerges and the necessity of strengthening it by all means among all individuals in general, and among university students in particular.

### **Definition of the Environment**

Several definitions have addressed the concept of the environment, including:

- It is the sum of the material, social, cultural, civilizational, intellectual, and psychological influences to which a person is exposed during his life, by which he is affected and which he also influences, and which he can change to the extent that enables him to live within it and with it while being fulfilled by his various successes (Jad, 2001, p.76).
- It can also be defined as: The medium or spatial domain in which a person lives, influencing it and being influenced by it (Jum'a & Bani Faris, 2011, p.34).

Thus, based on the definitions mentioned above, the environment is the surroundings in which we live, from which we derive our needs, and with which we interact, either positively or negatively.

## Definition of the Ecosystem

The ecosystem is the organized and continuous interaction between the living and non-living elements of the environment, and the balance produced by this interaction among environmental elements. Hence, the ecosystem is the system that focuses on the relationship between living organisms and their non-living environment (Al-Ayasrah, 2012, p.28).

Therefore, since the environment is the space or domain in which we live and satisfy our needs, we must preserve and protect it from any harm that threatens it, and even go beyond that to develop it and interact with it positively.

It is essential to live in a healthy and safe environment, and to achieve this, a set of strategies must be adopted, the most important of which is developing environmental awareness among members of society, whether young or old. Environmental awareness alone will lead individuals to care for and preserve their environments.

Thus, environmental awareness can be defined as:

The individual's perception of his role in confronting the environment, or helping individuals and groups acquire awareness of the environment and its problems. It is an awareness based on knowledge of environmental relationships and problems in terms of their causes, effects, and means. This is what is referred to as environmental awareness, which seeks to make the ordinary person familiar with the basic relationships between the components of the environment, the extent to which each is affected by the other, and the extent of human influence on it and his being influenced by it.

Man is the primary influencer of the environment's state and the first to be affected by it. Therefore, if environmental resources are to be preserved and used rationally, environmental awareness must be disseminated among all groups of society (Jad, 2007, p.101).

It can also be defined as:

The awareness among members of society of the importance of preserving the environment and its components, preventing its pollution, rationalizing the use of its resources, and confronting the risks it may face, for the safety and health of the individual and society, and to ensure sustainable development and a decent life for present and future generations (hcm.gov.sa).

Therefore, from the definitions mentioned above, environmental awareness is:

The understanding of individuals of different ages of the importance of the environment and the importance of protecting and preserving it from the various risks it may face.

Since man is the most significant influencer on, and the most affected by, the environment, it is necessary to raise his awareness and educate him with various environmental values and information, and on how to deal with them for a better life.

## Dimensions of Environmental Awareness

There are several dimensions that constitute awareness, namely:

- **Environmental knowledge:** The availability of a body of facts and information related to the environment, its elements, resources, and problems.
- **Environmental values:** A system of behavioral attitudes and beliefs related to environmental issues, arising from the individual's personal conviction of the importance of proper interaction with the environment and its various elements.

- **Environmental attitude:** The individual's response to the means of socialization in terms of acceptance or rejection of these issues, as well as his contribution to understanding environmental problems and consequently contributing to their resolution.
- **Environmental behavior:** A set of actions and behaviors exhibited by individuals in their interaction with the environment. It is part of their environmental interaction, influenced by the means of socialization that guide this behavior away from deviating from its desired and educationally correct course (Ben Aichouba, 2022, p.156).

### Characteristics of Environmental Awareness

- Awareness is a main objective of environmental education.
- Developing environmental awareness requires different types of regulation, namely: cognitive regulation, behavioral regulation, and regulation of decision-making and solutions concerning the environment.
- Awareness among individuals determines their behaviors and attitudes toward the environment.
- Building environmental awareness among individuals involves the ability to make decisions necessary for protecting and preserving the environment and using scientific thinking methods to address its problems.
- Understanding and perceiving the reciprocal interactive relationships between humans and the environment is a fundamental factor in the formation of environmental awareness.

### The Importance of Environmental Awareness

The importance of environmental awareness lies in:

- **Building individuals' attitudes within society** in order to change their behaviors toward the environment by involving them in solving environmental problems and making them responsible for identifying these problems as they occur, through the development of their skills and awareness in following environmental issues related to development, with the aim of achieving sustainability.
- **Providing individuals with knowledge, skills, values, attitudes, and emotions** to improve and protect the environment, by developing environmental awareness so that they have a positive impact in their interaction with it.
- **Activating the role of society** in order to improve the standard of living by reducing consumption that leads to environmental problems.
- **Identifying environmental problems and finding suitable solutions** with the participation of community members (Barghouthi, 2003, p.76).

It is known that a person acquires environmental awareness through the information and knowledge he has about the environment in its various aspects, which are formed by the stimuli surrounding him, occurring throughout the different stages of his development.

Today, we live in a world that changes from time to time due to great scientific progress, which has caused significant changes in various fields, including the environmental field. Today there is pollution in everything, with numerous environmental problems.

Human life today is threatened by serious diseases and viruses, among other risks. People are now concerned about what they eat, what they wear, and what surrounds them. All of this imposes on us the need to develop environmental awareness among all individuals, especially university students. Today's students are tomorrow's leaders, moving directly from university into society. Therefore, they must be equipped with various skills and abilities and have them refined so that they may be active and influential in their communities.

Among what must be developed in them is **environmental awareness**, and strengthening their environmental perception strongly so that society may benefit from them. Since the university bears a great responsibility toward society, it must educate its students environmentally and instill in them a spirit of responsibility and initiative to protect their environment from various risks. This must be done through many diverse methods, the most important of which is environmental education, taught as a subject at universities. Indeed, in Algerian universities today, environmental education is taught as a subject to students, as part of the authorities' efforts to support and enhance environmental awareness.

This provides benefits to the university and society as a whole. Teaching environmental education is no longer a luxury or an addition, but a pressing necessity in the face of the alarming increase in environmental problems.

### **Definition of Environmental Education**

Environmental education is the development of the individual's and citizens' awareness of the environment and related problems, equipping them with knowledge, skills, attitudes, and a sense of individual and collective responsibility toward solving contemporary problems, while also working to prevent the emergence of new environmental problems (Samir, 2013, p.64).

Thus, according to this definition, environmental education is essentially the dissemination and development of awareness among citizens about the various environmental problems, and holding them accountable for their responsibilities toward them.

Since human beings affect and are affected by these risks, and contribute to their occurrence, it is necessary to raise their awareness and develop their understanding of their active role in preserving and protecting the environment, in order to ensure a good quality of life.

Environmental education can also be defined as:

A process of forming values, attitudes, skills, and perceptions to understand the complex relationships linking man and his civilization to his environment, and to clarify the preservation of environmental resources and their proper use for the benefit of man, safeguarding his life and improving his standard of living.

Environmental education means the efforts made by official and non-official bodies and institutions to provide an adequate level of environmental awareness to all citizens of different ages and environmental circumstances, so that this awareness becomes a direct interest in guiding individuals' behavior toward preserving their natural environment by all available means (Jum'a & Bani Faris, 2011, pp.45–46).

Therefore, from the above, environmental education is an effective means of developing environmental awareness among individuals, especially at university.

**Environmental education** is the solution and the way forward. It is an educational system that aims to develop the environmental abilities and skills of individuals concerned with the environment and its issues. Through it, they acquire scientific knowledge, correct orientations, and the necessary skills to work individually and collectively in solving existing environmental problems, while also striving as much as possible to reduce the emergence of new environmental issues.

## Objectives of Environmental Education

- **Awareness:** Spreading environmental awareness among individuals so that they deal with the environment wisely.
- **Knowledge:** Providing individuals with diverse information about the environment.
- **Guidance:** Instilling values and principles related to the environment in individuals.
- **Skills:** Equipping individuals with the necessary skills to identify environmental problems and seek solutions for them.
- **Participation:** Encouraging individuals to take part in finding solutions to various problems (Al-Hosn, 2010, pp.12–13).

## The Rationale for Teaching Environmental Education

The growing interest in environmental education as an educational and pedagogical field, which enjoys priority in many countries around the world, is based on the following fundamental aspects:

- The increasing awareness of the crucial role that a sound environment plays in human survival and development.
- The trend toward updating curricula in both formal and non-formal education, to make them more relevant to current and future social problems and issues, and to ensure a high level of student participation in solving these problems.
- The interest in environmental education began in the 1970s, and during that period many countries of the world began efforts to integrate environmental education concepts into their educational systems. In addition to these national efforts, other initiatives were undertaken under the auspices of the United Nations. Among the most important outcomes of these efforts was the convening of several conferences, including the United Nations Conference on the Human Environment (Stockholm, 1972), which highlighted the need to develop an international environmental education program. One of the recommendations of this conference led to the establishment of the United Nations Environment Programme (UNEP). The conference also facilitated the organization of the International Environmental Education Workshop held in Belgrade in 1975, which established a framework and guiding principles for environmental education on a global scale, later known as the Belgrade Charter.

## Objectives of Environmental Education

Environmental education aims to:

- Prepare citizens who are aware of and concerned about their environment and its problems, equipped with knowledge, skills, attitudes, motivations, and commitment, both individually and collectively, to work toward finding solutions to current environmental problems and to prevent the emergence of other problems in the future.
- **Awareness:** Helping individuals and groups to acquire awareness and sensitivity toward the overall environment and its problems (Al-Tantawi, 2004, p.54).

It also aims to:

- Develop positive attitudes toward the role of living organisms in maintaining ecological balance.

- Foster the individual's sense of the importance of teamwork in protecting the environment and utilizing its resources.
- Encourage individuals to care about improving the standard of living for all people in the present and future, as well as for plant and animal groups.
- Provide knowledge about natural resources and ways to conserve them.
- Explain the components of ecological balance.
- Provide knowledge about the dangers of pollution and the problems resulting from it.
- Develop an understanding of the effects of internal and external factors on environmental change.
- Provide individuals with the basic concepts of the environment.
- Develop an understanding of human impacts on certain aspects of the environment.
- Emphasize the importance of cooperation among individuals, groups, and institutions to improve the standard of living and well-being and to protect the environment.

### Fields of Environmental Education

Educational curricula must commit to defining areas through which environmental education can be taught. It is natural that the content of environmental curricula differs from one environment to another, and that emphasis is placed on certain topics depending on the main environmental problems faced by those contexts. However, the main and essential fields of environmental education can be identified as follows:

- Environmental education in the conservation of natural resources, which includes:
  - Human beings and natural resources.
  - Problems facing natural resources such as depletion, pollution, and waste.
  - Conservation of natural resources.
- Environmental education in maintaining the natural balance of the environment.
- Environmental education in correcting false beliefs and superstitious interpretations related to the natural environment (Mazen, 2007, p.22).

Thus, environmental education plays an important and effective role in developing environmental awareness among individuals in general and among university students in particular. Therefore, it must be emphasized and given the necessary attention. In addition to environmental education, there are many other strategies that can contribute to developing environmental awareness at university.

### Environmental Media

- Environmental media is a compound term derived from two concepts: *media* and *environment*.
- Media is a dynamic process aimed at raising awareness, educating, informing, and persuading various audience groups who receive its different materials and follow its programs and segments. By media, we mean the process that results in disseminating accurate news and information based on honesty and clarity, addressing both the intellect and noble emotions of the public, and elevating

the level of opinion. The functions of media include reporting, explaining, interpreting, and educating.

- Environmental media, therefore, is the transmission of environmentally oriented information through media outlets in order to enrich the public's knowledge and influence their opinions, ideas, and behaviors toward the environment in which they live.
- Environmental media is considered one of the most important sources for shaping environmental awareness and disseminating sound understanding of environmental issues.
- It facilitates the audience's comprehension and awareness of contemporary environmental issues and helps build specific convictions regarding the environment and its problems, targeting all people and social groups (Ben Aichouba, 2022, p.158).
- This is especially true for university students, who must be encouraged to take initiative, be made aware of their active role, and be environmentally educated through the creation of environmental media cells within the university. The university can also contribute to raising environmental awareness and encourage scientific research to draw information related to the environment, its resources, and problems. Furthermore, universities must open up to society and its institutions, participate in solving its problems, and assist in the rational use of its natural resources (Darawat, 2018, p.210).

Environmental awareness at universities can also be spread by organizing conferences, seminars, and lectures, through which various types of information about the environment and its problems may be presented, as well as contributing to developing solutions. Awareness among students can further be enhanced by organizing environmental exhibitions that showcase different environmental issues.

Students can also be encouraged to address environmental topics in their dissertations and academic work whenever possible. Environmental awareness can likewise be strengthened by encouraging students to engage in voluntary work and community service, since:

“Voluntary work represents an important social pathway, derived from the values and culture of any society. Socially, it reinforces the values of cooperation, solidarity, and cohesion among the different groups of society. It is also considered a developmental necessity long advocated by researchers and social reformers, who believe that sustainable development cannot be achieved without broad and effective participation of all members of society” (Samir, 2013, p.141).

Therefore, universities must encourage their students to engage in voluntary activities related to serving the environment and contributing to solving its problems. Environmental awareness at the university can also be fostered by encouraging students to establish environmental clubs within the university and motivating them to participate actively in these clubs.

## Conclusion

There can be no disagreement about the importance of spreading environmental awareness in society. The university, as an official institution, can contribute greatly to this effort through a variety of means, most importantly:

- Teaching environmental education.
- Encouraging research in the environmental field.
- Organizing conferences, seminars, and lectures.

- Establishing environmental clubs and encouraging voluntary work, all of these measures can significantly contribute to serving the environment and society in an effective way.

## References

1. Al-Tantawi, Ramadan Abdel Hamid. (2004). Environmental Education: An Inevitable Education. Cairo: Dar Al-Nahda Al-Arabiya for Printing, Publishing and Distribution.
2. Al-Ayasra, Walid Tawfiq. (2012). Environmental Education and Its Teaching Strategies. Amman: Osama Publishing and Distribution.
3. Al-Hassan, Fathia Mohamed. (2010). Environmental Problems. Amman: Al-Mujtama' Al-Arabi Library.
4. Ben Aichouba, Maimouna. (2022). Mechanisms of Supporting Environmental Awareness in Algerian Society (Vol. 5). Journal of Economics and Environment.
5. Mazen, Hossam Mohamed. (2007). Environmental Education – Readings, Studies, Applications. Cairo: Dar Al-Fajr for Publishing and Distribution.
6. Barghouthi, Tawfiq. (2023). Environmental Awareness: A Theoretical Reading (Vol. 11). Al-Hikma Journal for Educational and Psychological Studies.
7. Darawat, Wahid. (2018). Environmental Awareness and Methods of Its Development in Algeria: A Descriptive Study (Vol. 7). Laghouat: Journal of Social Sciences.
8. Samir, Quraid. (2013). Environmental Protection, Pollution Control, and the Dissemination of Environmental Culture. Amman: Dar Al-Hamed for Publishing and Distribution.
9. Al-Saadi, Hassan. (2002). Ecology. Amman: Dar Al-Yazouri Scientific.
10. Jumaa, Mahmoud & Bani Faris, Salem Salah. (2011). Environmental Education in School Curricula. Amman: Dar Al-Yazouri.
11. Jad, Mona Mohamed Ali. (2004). Environmental Education in Early Childhood and Its Applications. Amman: Al-Maseera Publishing, Distribution and Printing.