

## **Educating to Raise Awareness of Environmental Protection for University Students in Vietnam for a Clean, and Civilized World**

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**Abstract---** The year 2022 is a milestone for environmental protection when the revised Law on Environmental Protection 2020 officially comes into effect from January 1, 2022. It leads to a significant transition in environmental protection towards meaningful goals, including improving environmental quality and public health, maintaining ecological balance and biodiversity, and promoting sustainable economic development. Environmental pollution is a top concern in Vietnam and globally because of the direct threat to biodiversity, climate change, living environment, and people. For environmental protection activities to be effective in Vietnam, a prerequisite is a comprehensive awareness of environmental protection among participants, especially university students - the country's future. This study evaluates the current situation and proposes real solutions to educate students about environmental protection, thereby raising the awareness of students in Vietnam in general and students in Ho Chi Minh City in particular. These are considered effective and long-term solutions to protect the future environment.

**Keywords---** Awareness, Environmental Protection, Student.

### **I. Introduction**

Climate change increasingly affects people's lives worldwide, in many aspects such as health, economy, and living environment. Moreover, our environment is becoming polluted due to many factors, especially human activities. Water and air are polluted from rural to urban areas in Vietnam and developing countries. The environmental protection education for students has not provided the necessary knowledge about environmental science, social, cultural, and economic issues.

In that context, sustainable development is often mentioned as a necessary key to solving the above problem. Sustainable development is a development that meets the needs of the present without compromising the satisfaction of the needs of future generations. To achieve this, we need to balance the four economic, cultural, social, and ecological factors - the four pillars of development.

Sustainable development aims to provide learners with sufficient information to help them make rational decisions about how to behave toward the environment. This method considers the natural or artificial environment as a medium for teaching and learning. Learners use their surroundings as a place to explore, learn, and experience real-world problems. This educational approach empowers learners to make changes for a better world in the face of local problems and threats. The study proposes solutions to raise students' environmental protection awareness.

### **II. Literature Review**

Academicians established a US-based international NGO, the Earthwatch Institute, in 2003 "to work together to promote environmental education and the cause of sustainable development" Haigh(2006). This event aimed to increase people's awareness of environmental issues and global change. Studies on environmental education from the 1960s and 1980s mainly focused on identifying, predicting, and controlling variables for environmental behavior Palmer & Suggate (2004). In the last decade, however, researchers have examined various perspectives related to the environment, such as students' environmental knowledge Morgil, et al. (2004). Even though most prior studies explored students' environmental knowledge and awareness, there are still concerns about transferring knowledge into action. For instance, in one study, it was one study found that people were aware of environmental aspects but were not prepared to transfer their environmental beliefs into consumer behavior (Matthews et al., 2021).

A similar finding was also reported in the Barraza and Walford study (2002) in Mexico and England, where students perceived environmental issues and had a high level of knowledge of environmental issues. However, they were not able to transfer this knowledge into action. Thus, to deal with such problems, Nicolaou, et al. (2009) suggest that "students should be able to reasonable cause and effects, advantages and disadvantages, and alternative outcomes to the decision-making process." Since today's children will be responsible for the remaining natural resources, children's environmental knowledge, environmental awareness, and attitudes toward the environment are essential Korhonen & Lappalainen, (2004). To address that problem, UNESCO has urged educators, institutions, and governments to design environmental education curricula for students that provide learning modules that bring balanced skills, knowledge, reflections, ethics, and values together (Haigh, 2006). The above studies have clearly shown the importance of the environment to human life; education needs to have a sense and responsibility to guide

students to protect the environment and raise their sense of responsibility. Environmental pollution, solid waste, and plastic are severe problems that harm human life. Many recommendations have been made, including educating people about environmental protection.

### III. Research Methodology

The article applies the method of comparing data from previous and current studies to find out the similarities and differences from which to apply this study reasonably.

### IV. Research Result and Discussion

Most of the students are interested in environmental issues. In particular, the living environment of people is changing day by day. This is reflected in many natural phenomena. For example, heat and rain change erratically, making people unable to adapt immediately. Not only that, today's environmental problems are evident in the face of the city, especially in big cities. Fine dust and dirty litter are many causes for human life to become miserable. As noted, the number of young children in big cities like Ho Chi Minh and Hanoi has a high risk of respiratory diseases than in other cities. The root cause is also fine dust and smoke from buses that have been used for a long time but have not been repaired, making the air on national highways dark and black. Nevertheless, not only children but target groups such as the elderly or teenagers are also susceptible to respiratory diseases.

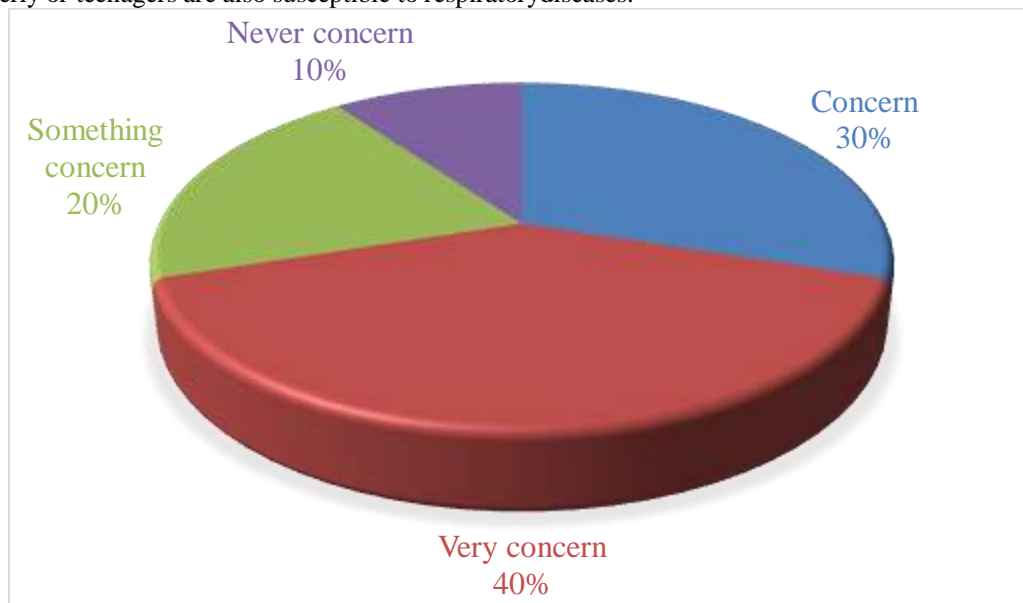


Figure 1: Students' Attitudes Toward Environmental Issues

For students, Tikka, Kuitunen, and Tynys (2000) find that students who feel about environmental issues engage in many nature-related activities. Education research has shown that the environment indicates that teaching in outdoor environments such as natural areas develops students' environmental awareness and brings a positive effect on the EA of students (Bogner 1998). It is necessary to say no to indiscriminate discharge; calling for protecting the environment and natural resources is essential and has been done for many years to contribute to behavior change and environmental protection (Figure 1).

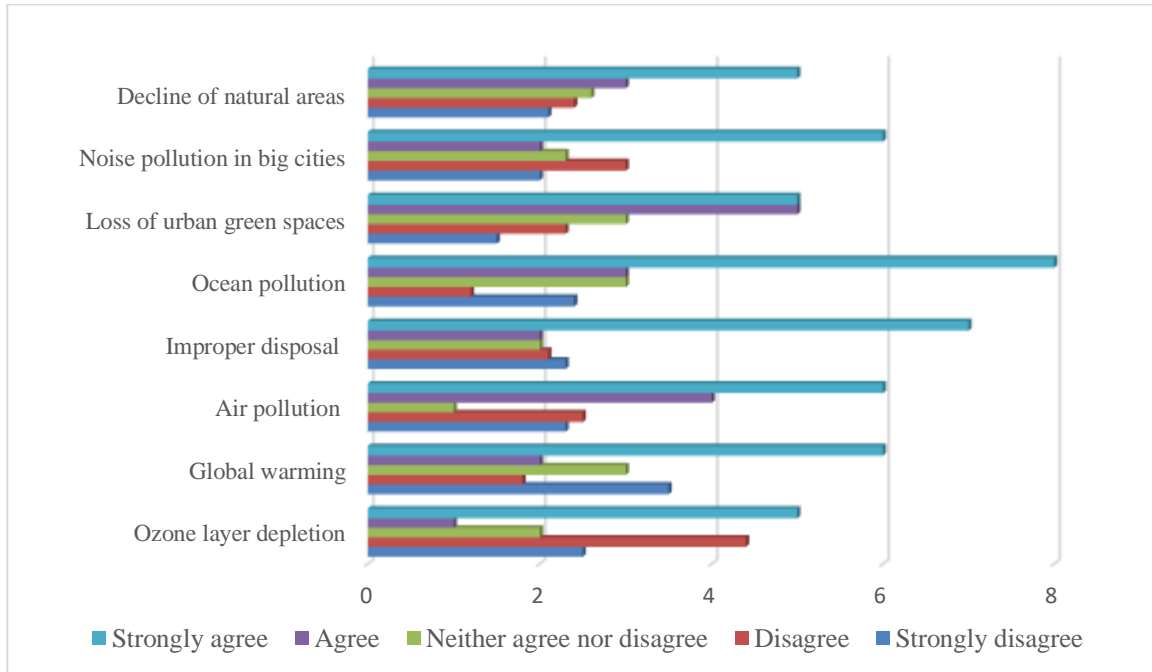


Figure 2: Environmental Issues of the Most Concern to Students

Figure 2 provides a list of how students are concerned about some environmental problems. Most of today's environmental-related issues are artificial such as global warming, ocean pollution, air pollution, waste disposal, natural environment deterioration, etc. Moreover, these problems are interrelated; even the solutions to protect one part of the environment cause pollution in another aspect. Electric cars are said to be a viable solution to the problem of air pollution. These vehicles run on hydrogen batteries and clean water, which will make the city cleaner. However, since hydrogen cannot occur naturally, it must be produced from burning coal. That increases carbon dioxide, which is the leading cause of ozone layer depletion and global warming.

In addition, there are still a lot of other environmental problems besides the ones mentioned above. Some examples are air pollutants coming from neighboring countries and other regions, concentrated energy problems, focus on nuclear power, and the problem of resource depletion mentioned Kulatunga et al., 2006. The problem of global warming is becoming increasingly severe every day, and society needs to consider and respond to the environment from many different perspectives, as stated by Morgil et al., 2004. The current situation is not only the concern of the government but also each person. It will seriously affect our future if no one takes responsibility for these problems.

Therefore, this is an era where it is essential to take the initiative to come to each person's workplace and to educational and research institutions such as the university to which we belong. To handle environmental problems, it is also necessary to save resources by disseminating and thoroughly understanding for students and staff, collecting garbage resources, coordinating with each department, and so on. The University Library is an organization that supports the learning, education, and research of students and faculty and is working daily to improve user service (Palmer et al., 2004). Although hot and cold-water consumption may increase due to extended opening hours and year-round weather, we are taking radical resource-saving measures with the cooperation and understanding of all people.

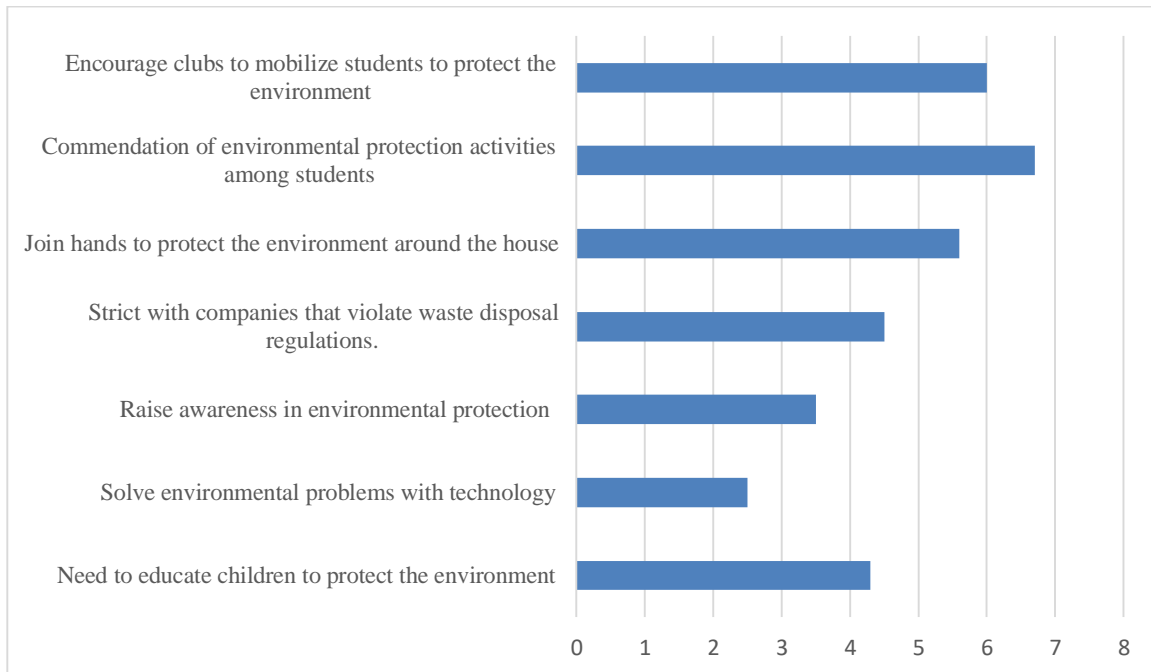


Figure 3: Students' Aspirations in Protecting the Surrounding Environment

The growing burden on the environment due to global warming and climate change is becoming a dilemma. These things significantly impact our lives, but the environment and ecosystems are also extensively damaged. Rising temperatures can create an environment where plants and animals cannot survive, and heavy rains, floods, and landslides can displace much of the ecosystem (Legesse et al., 2011). If this happens, built-in biodiversity will be lost, and animal and plant habitat will move north. In addition, people will likely be unable to grow vegetables and fruits in the future. Even if it can be grown and harvested, an effect on quality loss can happen (Engel, 2006).

Environmental conservation is an initiative to prevent global warming and protect the local environment and ecosystems. Using heating and cooling equipment consumes much power, depending on the temperature setting. In Japan, where it depends on thermal power production, the process of burning fossil fuels produces carbon dioxide - the main cause of global warming (Moirilan et al., 2005). Therefore, to prevent greenhouse gas, one of the environmental conservation activities is to limit the use of heating and cooling devices by controlling the temperature with curtains, coolers, and kettles and saving electricity.

Another example is that private cars used for transportation also contribute to increasing carbon dioxide emissions. People reduce carbon dioxide emissions by using public transport to get to work, school, shopping, and more (Moirilan et al., 2005). Alternatively, even when using a personal car, it is essential to note that eco-driving is like idling. Although the use of electric vehicles today is still expensive and not popular, it is still a solution worth considering. It is also effective to introduce solar power generation to provide needed energy without depending on thermal power generation as much as possible (Nicolaou et al., 2009). However, the advent of solar power generation costs much money. Replacing energy-saving and high-efficiency equipment is also an initiative leading to environmental conservation. Although it costs an initial fee, it will be a wallet-friendly initiative in the future as it saves energy.

## V. Recommendation

Many parts of the world have been promoting not using plastic bags by replacing them with baskets that are friendly to the environment. Because plastic bags are so cheap and convenient in Vietnam, they are often used only once and then thrown away. Plastic bags take nearly 1000 years to decompose, and single-use has a significant impact on the environment in the future (Legesse et al., 2011). According to the circular principle, in the process of decomposition, plastic bags will become microplastics that animals consume, and humans will eat the animals.

Second, when burned, the plastic bag will produce furan gas that affects the respiration of humans and animals. Cloth, paper, or reusable and compostable bags are an effective alternative to plastic bags. The world has generally noticed Vietnam as a country open to foreigners. Environmental factors also play a massive role in that. Therefore, it is necessary to learn from Japan in preserving the environment and sorting waste. In Japan,

different types of garbage are collected on different days and treated with different packaging. That makes it easier for people to distinguish what type of waste should be disposed of and makes it easier for companies to dispose of.

Third, it is essential to educate children to form a thrifty lifestyle and to protect the environment from an early age (Bogner, 1998). Japan educates children from a very young age. That is why young Japanese always keep the environment clean. In Japan, school cleaning is essential in education. In elementary school, students are familiar with the daily routine. They take responsibility for mopping floors and hallways, serving lunches to classmates, and even cleaning restrooms. As a result, school helps students better understand the environment and where they live (Barraza et al., 2002). The Japanese believe that when using a particular space, it is their responsibility to keep it clean until they leave. This idea shapes the order and cleanliness of the people of this country.

Moreover, studies have shown that a dirty, cluttered place can affect living conditions, reducing happiness in each person (Korhonen et al., 2004). In addition, raising awareness about recycling is important because each type of plastic will have different properties based on the label and the symbol on the package (Legesse et al., 2011). The next category of plastic bottles to be recycled includes clear and colored plastic, including detergent bottles, milk bottles, shower gels, shampoo bottles, and other household bottles. Remove the pump nozzle from the liquid so a bottle can be rinsed. Most trays and jars can be recycled, including takeout trays, yogurt jars, and cake boxes. For food containers, food wrap, bread bags, freezer bags, towel packaging paper, and reusable supermarket grocery bags. Paper, including magazines, newspapers, spam, folders, and plain wrapping paper, are all recyclable waste. Even the envelope and the tape on the gift box. They can be cut into small strands and bent into pretty bows to decorate other gift boxes.

## VI. Conclusion

In conclusion, environmental issues have an important influence on the world's future. This aspect is also reflected in terms of education. As governments worldwide are carefully considering economic issues, environmental awareness education also needs to be incorporated into the curriculum for university students and even primary school students globally.

## VII. Conflict of Interests

No conflict of interest is found in this paper.

## References

- [1] Haigh, M.J. (2006). Promoting Environmental Education for Sustainable Development: The Value of Links Between Higher Education and Non-Governmental Organizations (Ngos). *Journal of Geography in Higher Education*, 30(2), 327-349.
- [2] Palmer\*, J.A., & Suggate, J. (2004). The Development of Children's Understanding of Distant Places and Environmental Issues: Report of A UK Longitudinal Study of the Development of Ideas between the Ages of 4 And 10 Years. *Research Papers in Education*, 19(2), 205-237.
- [3] Morgil, İ., Seçil, A.R.D.A., Seçken, N., Yavuz, S., & Oskay, Ö.Ö. (2004). The Influence of Computer-Assisted Education on Environmental Knowledge and Environmental Awareness. *Chemistry Education Research and Practice*, 5(2), 99-110.
- [4] Same, S., & Larimo, J. (2012). Marketing Theory: Experience Marketing and Experiential Marketing. In 7<sup>th</sup> International Scientific Conference "Business and Management", 10-11.
- [5] Barraza, L., & Walford, R.A. (2002). Environmental Education: A Comparison Between English and Mexican School Children. *Environmental Education Research*, 8(2), 171-186.
- [6] Nicolaou, K.E., Ellery, S.P., & Chen, J.S. (2009). Samarium Diodide Mediated Reactions in Total Synthesis. *Angewandte Chemie International Edition*, 48(39), 7140-7165.
- [7] Korhonen\*, K., & Lappalainen, A. (2004). Examining The Environmental Awareness of Children and Adolescents in the Ranomafana Region, Madagascar. *Environmental Education Research*, 10(2), 195-216.
- [8] Kulatunga, U., Amaratunga, D., Haigh, R., & Rameezdeen, R. (2006). Attitudes and Perceptions of Construction Workforce on Construction Waste in Sri Lanka. *Management of Environmental Quality: An International Journal*.
- [9] Winter, D., & Koger, S. (2014). *The Psychology of Environmental Problems: Psychology for Sustainability*. Psychology Press.
- [10] Tikka, P.M., Kuitunen, M.T., & Tynys, S.M. (2000). Effects of Educational Background on Students' Attitudes, Activity Levels, And Knowledge Concerning the Environment. *The Journal of Environmental Education*, 31(3), 12-19.
- [11] Bogner, F.X. (1998). The Influence of Short-Term Outdoor Ecology Education on Long-Term Variables of Environmental Perspective. *The Journal of Environmental Education*, 29(4), 17-29.

- [12] Momirlan, M., &Veziroglu, T.N. (2005). The Properties of Hydrogen as Fuel Tomorrow in Sustainable Energy System for a Cleaner Planet. *International Journal of Hydrogen Energy*, 30(7), 795-802.
- [13] Prentice, A.M. (2006). The Emerging Epidemic of Obesity in Developing Countries. *International Journal of Epidemiology*, 35(1), 93-99.
- [14] Proshad, R., Kormoker, T., Islam, M.S., Haque, M.A., Rahman, M.M., &Mithu, M.M.R. (2018). Toxic Effects of Plastic on Human Health and Environment: A Consequences of Health Risk Assessment in Bangladesh. *International Journal ofHealth*, 6(1), 1-5.
- [15] Engel, K. (2006). State and Local Climate Change Initiatives: What Is Motivating State and Local Governments to address a Global Problem and What Does this Say About Federalism and Environmental Law. *Urb. Law.*, 38, 1015.
- [16] Matthews, C., Moran, F., & Jaiswal, A.K. (2021). A Review on European Union’s Strategy for Plastics in a Circular Economy and Its Impact on Food Safety. *Journal of Cleaner Production*, 283, 125263.
- [17] Legesse, A., &Diriba, M. (2011). Survey on the Usage of Plastic Bags, their Disposal and Adverse Impacts on Environment: A Case Study IN Jimma City, Southwestern Ethiopia. *Journal of Toxicology and Environmental Health Sciences*, 3(8), 234-248.