

ENVIRONMENTAL EDUCATION

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Abstract:

Environmental education is a process that allows individuals to explore environmental issues, to engage in problem solving, and to take action to protect the environment. As a result, individuals develop a deeper understanding of environmental issues and have the skills to make informed and responsible decisions. In this fast-changing world, human activities are the main drive of global environmental issues. Climate change, plastic wastes and degradation of natural resources are the most commonly known issues. According to NASA, the average global temperature has risen by approximately 2 degrees Fahrenheit in the past 10 years. The effects are loss of sea ice, rise of sea level and more intense heat waves. Ocean Conservancy has observed that 80 percent of plastic wastes in the oceans comes from leakage of land-based sources due to growing economy and poor waste management system. More than 50 percent of these wastes were created in China, Indonesia, the Philippines, Thailand and Vietnam. It is estimated that approximately 45 percent of global plastic-waste leakage can be reduced, if the proper interventions are made in these 5 countries. Environmental education is the key to raise awareness and create sustainability mindset in young generation. Thinking of the long-term result, it is important that children grow up to be adults who are aware of the consequences of their actions as well as know how to preserve and to utilize the remaining resources wisely. It is strongly suggested that effective environmental education should become mandatory at every school. This article also refers to 'We Grow' project which was introduced by Greenpeace Thailand. It aims the creating an eco-friendly environment at schools and teaching students about sustainable living. The information was derived from on-site experience and an interview with an experience staff of Greenpeace Thailand.

Keywords: education, environment, climate change, plastic waste, sustainability, mind-set

INTRODUCTION

Environmental education is a process that allows individuals to explore environmental issues, to engage in problem-solving, and to act to protect the environment. As a result, individuals develop a deeper understanding of environmental issues and have the skills to make informed and responsible decisions. (United States Environmental Protection Agency, 2017)

Why do we need effective environmental education?

We are living in a world that is changing very fast. People tend to focus more on catching up (with) the world's trend, profitability and convenience. But, how many of us focus on sustainability and global wellness? Many businesses were found to operate unsustainably. For example, many canned fish manufacturers still use bottom trawling method to catch the fish, although they know that it causes great harm to marine biodiversity. In a year, numerous sea turtles, sharks and birds were caught in the non-sustainable fishing around the world. Growing demand of palm oil products leads to increase in deforestation and habitat loss for wild animals.

Non-sustainable activities are the main cause of environmental problems. This has been identified by many accredited organizations such as NASA, UNEP, World Bank, Greenpeace, Ocean Conservancy, etc. The purpose of their hard work is to mitigate the effects of environmental problems, before we reach the irreversible point and to create a safe and healthy environment for all of us.

According to NASA, current average global temperature has risen by two degree Fahrenheit through constant increase in man-made greenhouse-gas emissions. The average global temperature has not changed since 1950 and 2016 was found to be the hottest year so far. The results of this are the increasing of warm days and nights along with flood, droughts, heat waves and wildfires. These instabilities lead to loss of natural resources and species. The mitigation requires a significant reduction in the amount of greenhouse gas emission. (NASA, 2017)

Another good example for the environmental problem is the plastic-waste leakage in the oceans. Growing economy and industrialization also lead to increase in waste. It has been found that 80 percent

of wastes in the ocean was disposed on land and later on leaked into the oceans due to insufficient space. This activity is causing great harm to marine biodiversity. Eventually, the harms come back to us through the food chain. Management of plastic waste is a challenging task as plastic is very durable and can retain its original shape for approximately 400 years after being discharged into water. Researches showed that over half of plastic-waste in the ocean was originated in China, Thailand, Indonesia, the Philippines, and Vietnam. Researchers expected that the amount of waste will reduce by 45 percent over the next ten years, if proper interventions are in place for these five countries. (Ocean Conservancy, 2015)

From my experience, schools in Thailand have not emphasized on environmental problems. The root cause has not been addressed and the practices are not effective. As for part of environment saving, I have been taught to pick up waste and throw them into the bin. Unfortunately, nobody mentioned about how these wastes will go afterwards. Nobody mentioned that we are running out of space to store garbage. The better practice could be to throw away less. Imagine, if a school prohibits the use of plastic bottles, how much waste can we reduce in a year. This is a great support that we, as humans, can do to support the NGOs. Unfortunately, 90 percent of schools in Thailand have not considered this.

Keeping our environment safe and healthy is the benefit for everyone. Hence, it is also everyone's responsibility to give a hand in solving the on-going issues before it reaches the irreversible point. When that nightmare comes, humans in the next generations may no longer breath from the natural air or they will never experience naturally beautiful corals when they go diving. Solving environmental problems requires a good understanding in the elements of our environment and a strong mind-set in sustainability. I believe that implementing effective environmental education at schools will build a strong sustainability mind-set in children as well as they will have the ability to make wise and sustainable actions in the future.

EXAMPLES OF ENVIRONMENTAL EDUCATION IN THAILAND

'We Grow' by Greenpeace Thailand

'We Grow' is a project initiated by Greenpeace Thailand. The main objective is to improve food system in Thailand by advising and coaching locals to produce food from eco-farming or sustainable farming. This is for the benefit of people and the environment. Non-sustainable farming has many negative impacts. Chemicals are still widely used in many parts of Thailand and children can get chemicals through contaminated food, water, soil and dust. Single-crop farming or monoculture is adopted by farmers to yield huge number of crops to feed the market. However, it has bad effects on soil quality, plants, animals and finally, declining crop yields.

The research confirmed that crop yields from eco-farming is not less than traditional farming. Nevertheless, it requires the right techniques (know-how), more caring, and sustainable mind-set. There are numerous reasons why we need to change towards eco-farming but the main obstacle is the resistance to change. Hence, Greenpeace saw that it is important to raise awareness and provide the knowledge to people.

The focus of this project was first on schools and hospitals because children and patients are most vulnerable. Hence, clean and safe food is essential. Greenpeace decided to start piloting this project at Vanessa school in Bangkok. Vanessa is a private alternative school where firsthand experience and creativity are emphasized. The school granted a piece of land to build a vegetable plot and this plot provides food for canteen of the school. Greenpeace staffs regularly visit the school to guide and teach students to grow vegetables using eco-farming method. This does not only teach them how to do it, but also allow them to experience firsthand and that it is possible to produce safe and clean food by themselves. Students who participate are in secondary level. The reason for choosing this age range is because in governmental schools, students in these age ranges choose school lunch. With only 20 baht (0.60 USD) per head budget provided by the government, governmental schools can hardly pay the salary of the kitchen staffs, let alone providing good-quality lunch for students. After the positive feedback from Vanessa school, Greenpeace plans to extend this program to 3 other schools in the North of Thailand by this year.

Apart from this, Greenpeace also supported REAL project initiated by Thai Education Foundation. The support includes funding and knowledge sharing on eco-farming. In addition to this, Greenpeace also shared the knowledge on impacts of animal production on the environment. This topic has not been emphasized in REAL project before. (Daengsubha, 2017)

REAL Project by Thai Education Foundation

REAL stands for Rural Ecological Agricultural Livelihood. It is a project initiated by Thai Education Foundation, a non-profit organization in Thailand. The objective is to raise awareness on the agrobiodiversity and impacts of chemicals to health and environment, promote sustainable agrobiodiversity, and build the community with the capacity to adopt ecological agriculture practices. This project is focusing on providing more and more knowledge to students, teachers, and farmers in the rural areas. (Thai Education Foundation, n.d.)

CONCLUSION AND SUGGESTION

From my observations, the biggest obstacle of environmental projects is the lack of societal cooperation in the society. Changing towards sustainability requires sacrifices. It is very hard when people are used to convenience. They will not change, unless they are aware of downsides. Hence, it is crucial to raise good awareness and build strong sustainability mind-set in people. School is the best place to start.

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