

# UN Convention on the Rights of the Child - A Report on the Rights of Children and Youth - Using Air Pollution, Marine Pollution, and Environmental Education as Examples

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## 1. Air pollution

Taiwan's streets are not equipped with sufficient smoking areas, and many adults smoke in the toilet at home. With their bodies still growing, children and youth under the age of 18 are forced to inhale secondhand smoke, which causes far more harm than smoking. If the parents are smokers, the likelihood of their toddlers contracting pneumonia and other respiratory diseases increases. Non-smokers living with smokers for a lifetime are exposed to PM2.5 concentrations equivalent to that of a city with serious haze pollution. For homes without smokers, the PM2.5 concentration is decreased by 70%.

In addition to secondhand smoke, toddlers living with smokers are also exposed to "thirdhand smoke", which consists of at least 11 types of highly carcinogenic substances in the environment that lead to cognitive deficits in children, increase the risk of asthma and ear cancer among infants and toddlers, particularly in homes with toddlers crawling around on the floor. In addition, an estimated 500 million cigarette butts are randomly discarded throughout Taiwan every year. Cigarette butts are made of cellulose acetate, which takes at least 12 years to break down in nature; even if they are littered in parking lots or on streets, cigarette butts are flushed down the gutter and into rivers and the ocean, releasing toxic substances such as nicotine and plasticizer. The poor habits of the previous generation will become living and environmental burdens of future generations.

Taiwan's tobacco market control is extremely feeble, even junior and senior high school students can easily purchase or obtain cigarettes, vapes, or other emerging tobacco products through various channels.

## 2. Marine pollution problems

### **Introduction:**

The Earth's environment can only be sustained with the existence of the ocean, which plays a crucial role in regulating the climate, hydrological cycle, and ecosystem. The ocean is the cradle of all living creatures on Earth. Taiwan is surrounded by the ocean, and children often come in contact with the sea. Therefore, marine pollution can be harmful to children's health and it is a problem that cannot be overlooked.

### **I. Various types of marine pollutions**

#### **Marine plastic pollution:**

All over the world, plastic products are the primary contributor to environmental pollution. Although it is an indispensable part of people's lives due to its versatility and convenience, plastic is not biodegradable in the environment and it causes unimaginable harm to the planet. Since plastic is not biodegradable, as much as 3/4 of all plastic trash is buried in landfills, and more trash is scattered in the depths of the ocean. Organisms ingesting plastic products by accident are often killed.

#### **Marine radioactive pollution:**

Radioactive pollution's impact on marine life is far greater than its effect on sparsely populated land. According to studies by marine biologists, infected organisms suffer varying degrees of contamination, where some are killed immediately, while others sustain enormous genetic damage. The flow of radioactive substances through the food chain has resulted in an increasing number of large marine consumers ingesting radioactive plants and smaller prey. Pollution is like a bottomless pit that devours lives while continuing to expand until all life forms affected by radiation gradually become frail and ultimately perish. As a result, the polluted ocean becomes lifeless.

#### **Marine oil pollution:**

After mixing with seawater, crude oil changes the color and transparency of the ocean, in turn changing the original habitat and growing environment of marine life. In addition, the enrichment of toxic substances will cause them to die on a mass scale or force them to migrate. On the other hand, the vast stretches of oil film diminish solar energy entering the ocean, preventing air-sea gas exchange and causing hypoxia in the seawater that directly impairs the photosynthesis of marine plants, as well as the circulation of the entire marine food chain. In turn, the ecological balance in the marine environment is disrupted, causing fish and shrimps to die from hypoxia.

#### **Heat pollution:**

Coral reefs are extremely sensitive to seawater temperature. During several weeks of rising seawater temperature, the algae inside coral reefs begin to accumulate large quantities of hydrogen peroxide ( $H_2O_2$ ), which develops a chemical reaction with the coral reef. In order to protect themselves, the coral polyps begin to expel algae, causing bleaching of the coral reef.

#### **Marine heavy metal pollution:**

Heavy metal pollution in the ocean includes mercury (Hg), cadmium (Cd), lead (Pb), zinc (Zn), chromium (Cr), and copper (Cu). Large quantities of heavy metals are introduced into the ocean through rivers or the atmosphere due to rock erosion, submarine volcano eruptions, and soil erosion. Heavy metals released into the atmosphere through pollutants, wastewater, pesticides containing heavy metals, as well as the burning of coal and oil end up in the ocean. Globally, over 3,000 tons of mercury are introduced into the ocean every year. Lead carried by the atmosphere is also a source of marine contamination.

### 3. Environmental education

According to the US EPA's data, environmental education is a process where people can explore environmental problems, participate in resolving the problems, and take action to improve the environment.

Consists of the following 5 items:

1. Participation – Participation in activities designed to address environmental challenges
2. Knowledge – Knowledge about the environment and environmental challenges
3. Skill – Skills for identifying and solving environmental problems
4. Attitude – Attitude of caring about the environment and motivation for upholding or improving the quality of the environment (attitude is not listed on the Global Development Research Center's environmental education website, but values are)
5. Awareness – Awareness of and sensitivity toward the environment and environmental challenges

#### **II. The current state in Taiwan**

##### 1. Participation-related problems:

Taiwan's education attaches great importance to individual disciplines and grades, but less emphasis on environmental education presents a major problem. Due to the emphasis on disciplines, children and youth have less opportunity or motivation to explore and resolve environmental problems. Of the students aged 14 to 15 questioned, 90% of them attend afterschool classes, and some of them stay in these classes until 9 PM for more than 3 days a week. Under such circumstances, children and youth are unable to participate in environmental movements.

In the "2020 National Environmental Education Implementation Outcome Report", the first argument in the introduction "Development of Environmental Education for Preschools and Schools" mentions "establishing the correct environmental protection concepts among toddlers, children, youth, and college students through systematic strategies of enlightenment, awareness, exploration, and problem-solving, so that they can turn environmental protection into action as adults, thereby elevating the environmental knowledge, skills, attitude, and values of citizens". The report makes no mention of participation and awareness, only knowledge, skills, attitude, and values. The report makes mention of "turn environmental protection into action as adults". Children and youth have the ability to turn environmental protection into action (through participation), hence participation should not be left out simply because of they are children and youth.

##### 2. Knowledge-related problems

The "2020 National Environmental Education Implementation Outcome Report" has included numerous environmental education-related activities and courses, but such activities are measured based on quantity, such as the number of sessions, how many places, how much money, and how many people. How many people, how many sessions, or how many places are not indicative of the knowledge or skills cultivated in these activities or courses, and whether such knowledge or skills are applied in practice or are completely useless. Even if some environment and environmental challenge-related knowledge has been obtained, people can choose to do nothing. For instance, people continue to enjoy deep-fried food even though they are aware of the health risks. Although the above example is irrelevant to

environmental education, the current conditions of environmental education are very similar to the given example.

School teachers can attend environmental education training courses; after interviewing the teachers, we have obtained the course content, feedback, and some practical situations. Based on what the teacher said about the environmental education training course, the content was never taught to me or my classmates in the teacher's class. According to the teacher, the training course has demonstrated to them how to incorporate environmental education into the class, but, in fact, the teacher seldom mentions any environmental knowledge-related details. In terms of feedback, most of the responses were "it is okay". When people say "it is okay", one must view the phrase more rigorously because it implies that it is not particularly good, otherwise, the feedback received would comprise positive words such as "very special, excellent, I like it", rather than ambiguous replies. In terms of training, some teachers described it as "we only went there to have fun", "we only cared about the in-service education hours", "we weren't really paying attention", thus it is not a pretty picture. All in all, what teachers can offer students in terms of knowledge on environmental education remains unclear. The knowledge students have acquired is often used during examinations, which will intentionally feature some environmental knowledge-related questions. At least that is the case with junior high schools and primary schools.

3. Skill-related problems

As the first part of the current status in Taiwan has described, children and youth rarely have the opportunity to solve problems by applying their skills because there is simply no time. As stated in the second part of the current status in Taiwan, the skills are used during the examination, and the teachers' skills are also problematic.

4. Attitude-related problems

Attitude is very difficult to cultivate, and motivation is also part of attitude. Taiwan's education environment is not very environmental education-friendly, at least this is the case in junior high schools and primary schools. The level of attention paid by children and youth to the environment is negligible compared to other matters, this is evident by observing what most children and youth around us talk about. Taiwan's learning environment hinders their motivation for improving environmental quality.

5. Awareness-related problems

Although children and youth have a certain understanding of the environment and environmental challenges, they lack sensitivity. Like attitude, this is not easy to cultivate. Such insensitivity is the result of people not paying attention to environmental problems. The cultivation of attitude and awareness requires the assistance of the environment. Taking the Society of Wilderness's family group as an example, members who have joined the group and stayed all possess an attitude of paying attention to the environment and they are also highly sensitive toward environmental problems. However, not everyone had such qualities when they first joined the group as these qualities were shaped slowly over time in the group. In the Society of Wilderness's family group, children learn what they "can" do to explore and resolve environmental problems, but youth will become "willing" to do so. This is the manifestation of attitude and awareness.

### **III. Solutions**

The government should implement fundamental changes in the education policy to give children and youth the opportunity and time to apply their skills and knowledge during the participation process. When children and youth can explore, participate, and solve environmental problems, their attitude and awareness will be cultivated because they have personal experience in the matter. This is an improvement over the current theoretical education in Taiwan. The government should provide children and youth with ample opportunities and time to participate in civil society groups that can let them explore, participate, and resolve environmental problems, as well as take actions to improve the environment. In doing so, environmental education will be so much more than just knowledge and skills.