



**Geep** GLOBAL ENVIRONMENTAL EDUCATION PARTNERSHIP

*Sharing ideas to create a more just and sustainable future through the power of environmental education*

## CASE STUDY

# Implementing the Taiwan Environmental Education Act (TEEA)

Taiwan

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### CONTRIBUTOR

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GEEP is a partnership of the U.S. Environmental Protection Agency, the Environmental Protection Administration of Taiwan, and the North American Association for Environmental Education.



## Implementing the Taiwan Environmental Education Act (TEEA)



GOALS KEY  
[United Nations Sustainable Development Goals](#)  
addressed

### Overview

This case study describes one country's process of implementing a national environmental education act. The Taiwan Environmental Education Act (TEEA) was approved on June 5th, 2010 and went into effect the following year, on June 5th, 2011.



TEEA aims to cultivate citizens' understandings of their ethical relationship with the environment while improving their knowledge, skills, attitudes, and values with regard to environmental protection. In addition, TEEA also encourages citizens to cherish the environment and to take action to achieve sustainable development.

#### **The case study of the implementation of the Taiwan Environmental Education Act illustrates how:**

- A national environmental education act helped to make EE more sustainable on a national level, including by providing stable funding and personnel to support national EE efforts
- EE became a central component of national sustainable development and environmental protection strategies
- The introduction of certification processes for EE personnel, facilities and places, and institutes helped to ensure quality EE implementation

# Background

The effective implementation of the Taiwan Environmental Education Act (TEEA) was preceded by nearly 18 years of environmental education legislation. Table 1 provides an overview.

Table 1. **History of Environmental Education Legislation in Taiwan**

<b>PHASE I</b>	<b>1992</b>	<ul style="list-style-type: none"> <li>According to the “Five Years of Middle-Term Projects for Environmental Protection”, the central government shall establish an EEA</li> </ul>
	<b>1993</b>	<ul style="list-style-type: none"> <li>The first research project on environmental education legislation was commissioned by <a href="#">Taiwan Environmental Protection Administration (Taiwan EPA)</a></li> <li>The first draft TEEA was developed, referencing the <a href="#">U.S. Environmental Education Act (1990 version)</a>.</li> </ul>
<b>PHASE II</b>	<b>2002</b>	<ul style="list-style-type: none"> <li>Taiwan EPA started the legislation procedure for TEEA</li> <li>Taiwan EPA began discussions with local environmental protection institutions, experts, scholars, local organizations, and related ministries for the content of the draft TEEA</li> </ul>
	<b>2004</b>	<ul style="list-style-type: none"> <li>Taiwan EPA presented a draft TEEA to the Executive Yuan, the executive branch of the Taiwanese government</li> </ul>
<b>PHASE III</b>	<b>2005</b>	<ul style="list-style-type: none"> <li>Taiwan EPA held meetings and public hearings with related ministries, local environmental protection institutions, experts, and local organizations to revise the draft TEEA</li> <li>Taiwan EPA presented the draft TEEA to the Executive Yuan for the second time</li> </ul>
	<b>2006</b>	<ul style="list-style-type: none"> <li>The draft TEEA was deemed as “unnecessary for legislation” by the Executive Yuan; that is, environmental education was viewed as possible to implement without a specific EE act</li> </ul>
<b>PHASE IV</b>	<b>2007</b>	<ul style="list-style-type: none"> <li>The proposed TEEA was promoted in the Presidential Campaign</li> </ul>
	<b>2008</b>	<ul style="list-style-type: none"> <li>Legislators proposed a TEEA draft to the Legislative Yuan with the assistance of <a href="#">Chinese Society of Environmental Education (CSEE, Taiwan)</a></li> <li>The Executive Yuan accepted the environmental education bill as a prioritized legislation plan</li> </ul>
	<b>2009</b>	<ul style="list-style-type: none"> <li>The Sustainable Education Group in National Council for Sustainable Development, Executive Yuan held a meeting to review the TEEA draft</li> <li>Executive Yuan examined the draft again</li> <li>CSEE and Taiwan Environmental Protection Alliance worked together to hold a forum to discuss the TEEA draft</li> <li>CSEE held a public hearing for the TEEA draft</li> <li>Executive Yuan approved the TEEA draft and transferred it to the Legislative Yuan for deliberation</li> </ul>
	<b>2010</b>	The TEEA was approved on June 5th, 2010
	<b>2010</b>	The TEEA was effective on June 5th, 2011

# Approach

**Structure.** There are five chapters of the TEEA: 1) general principles, 2) environmental education policy, 3) authority and responsibility of all levels of competent authorities to hold environmental education activities, 4) reward and promotion of environmental education, and 5) penal provisions.

**Strategies.** Several important strategies are regulated in the TEEA. The first is that the TEEA requires government agencies, public enterprises and organizations, schools, and juridical associations that derive more than half of their income from government donations to assign environmental education personnel to conduct no less than four hours of environmental education (EE) per year for their members, staffs, or students (Article 19). This audience comprises of 1/6 of the population of Taiwan. A second key strategy is the arrangement of professional certification (Article 10). The EPA and other government agencies such as the Ministry of Environment issue professional certifications for environmental education institutes, environmental education facilities and places, and environmental education personnel. About 10,000 environmental educators have been certified over the past five years, and more than 140 EE Facility & Place certifications have been issued. Finally, related to penal provisions, those who violate environmental protection laws and are penalized through the suspension of work/business or are fined more than NTD (New Taiwan Dollars) 5,000 are required to take a one- to eight-hour environmental course.

**An overview of key TEEA functions are listed below:**

- **Establishment of a National Environmental Education Framework and Environmental Education Action Plan.** According to the Article 5, Chapter 2 of TEEA, EPA shall establish the National Environmental Education Framework and propose the framework to Executive Yuan to promote national environmental education policy. This framework shall be revised every four years.
- **Budget allocation for environmental education funds.** All levels of competent authority shall establish an environmental education fund to support environmental education activities or events (e.g., EE lectures, EE teaching materials, international EE experiences or exchange workshops, subsidies for EE projects, training EE personnel). The sources for this fund could be: 1) at least 5% of budget for annual environmental protection fund; 2) 10% of revenue from annual sales of recycled waste; 3) 5% of revenue from environmental protection fines; 4) interest from the fund; 5) donations from NGOs, private enterprises, organizations, or institutes.
- **Assignment and certification of personnel to conduct EE.** Environmental Education Professional Personnel can be certificated through one of six approaches, including education, experiences, expertise, recommendation, examination, and training.
- **EE consultation and EE Facility & Place certification to improve the quality of Non-Formal EE.** An Environmental Education Facility and Place can be certified by the central competent authority and is required to hire at least one certified Environmental Education Personnel.
- **Certification of Environmental Education Institutes to provide training.** An Environmental Education Institute is required by the TEEA to offer courses for Environmental Education Professional Personnel certification, EE Facility & Place certification, and other EE courses.
- **Implementation and monitoring of no less than four hours of EE.** The TEEA requires government agencies, enterprises, organizations and schools to implement no less than 4 hours EE every year and report the results to EPA.



## Evaluation Plan

Taiwan's Environmental Protection Administration is responsible for evaluating the TEEA. Evaluation approaches have included:



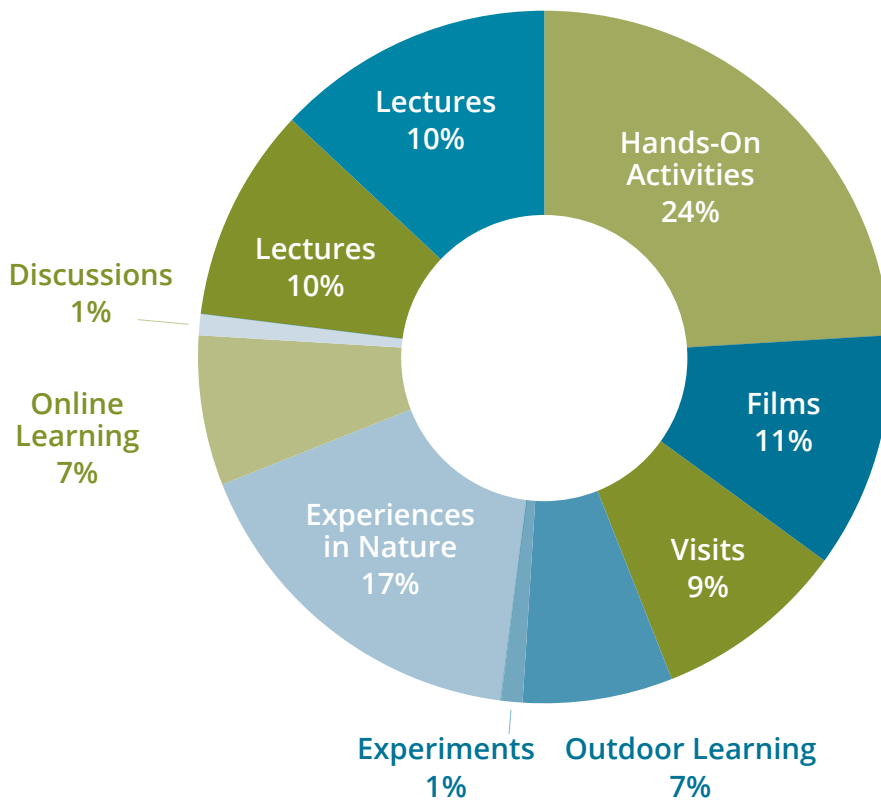
- **National surveys of citizens' environmental literacy.** To evaluate the effects of implementing TEEA, Taiwan EPA has conducted yearly national surveys for the past three years of Taiwanese citizens' environmental literacy.
- **Quantitative analysis of annual certifications.** Taiwan EPA analyzes the numbers of Environmental Education Personnel (including certifications of school-based educators), Environmental Education Facility & Place, and Environmental Education Institutes certified annually over the past five years.
- **Evaluation of the quality of required environmental education hours.** All government agencies, public enterprises and organizations, schools, and juridical associations that derive more than half of their income from government donations propose environmental education projects to be completed every year. Performance reports of these projects are submitted to the central competent authority before the following year. Taiwan EPA examines these reports to check the quality of the environmental education required by the TEEA, and summarizes annual EE performance reports from each institute, organization, and school.

# Outcomes

Through taking no less than 4 hours environmental education, the TEEA reaches 1/6 of population in Taiwan. The impact of TEEA is certainly national and has resulted in:

- **National engagement in a variety of environmental protection awareness activities.** Over five years of TEEA implementation (2011-2015), reported environmental protection awareness activities in Taiwan have taken varied forms (see Figure 1). Hands-on EE activities were most common, accounting for 24% of the total activities. The second most common (17% of total activities) were EE experiences, or events in which people to learn directly in and from nature, instead of only through books or materials. Other activities, such as EE courses, lectures, and related films have also been popular ways to deliver environmental protection awareness.

EE Performances from 2011 to 2015 by Activity Pattern



- **EE certifications.** As of April 2016, TEEA had resulted in the certification of 9,278 Environmental Education Professional Personnel, 135 environmental education facilities and places, and 27 environmental education institutes.
- **Provision of EE courses for environmental protection violations.** From June 5th, 2011 to the end of April 2016, 69,990 persons had attended environmental education courses due to violation of TEEA Articles 23 and 24.
- **Funding for EE.** The environmental education fund includes NTD 0.36 billion budgeted annually for the central government and a total of another NTD 4 billion for the local government.

## Lessons Learned

Prior to the TEEA, government agencies duplicated efforts in environmental education due to lack of an integration mechanism. In addition, there was no stable financial support and there were no specific environmental education research centers for EE development. Contact personnel in charge of environmental education in each government agency had few opportunities to enhance or improve their abilities in EE, which limited EE achievement and the efficient promotion of EE.



TEEA could be regarded as a solution to many of the problems that environmental education in Taiwan had been facing over the preceding 10 to 20 years. It was necessary to have a national act to integrate all the resources; certify EE personnel, facilities and places, and institutes; and build up a funding system. Some lessons learned from TEEA include:



- **The development of environmental education should be sustainable and efficient.** If there are only volunteers to work on EE events or activities, it will not be sustainable. EE should be a career. Young people need opportunities to strengthen their environmental protection awareness by devoting themselves to paid careers in EE.
- **EE is crucial for national sustainable development and environmental protection.** A national EE act helped to guarantee stable EE funding and personnel that could help advance national sustainable development and environmental protection goals.
- **Certification processes help support the efficient and effective implementation of EE.** The TEEA's mechanism of certifying Environmental Education Personnel, Environmental Education Facilities and Places, and Environmental Education Institutes is a good design to ensure quality EE implementation. Certified EE professionals are prepared to help cultivate environmental literacy, including understanding of sustainable development and diverse environmental conservation issues, positive attitudes to protect the environment, and responsible environmental actions.

# Resources

- Taiwan Environmental Protection Administration: <http://web.epa.gov.tw/en/>

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