

# Environmental Education in Thailand : Policy and Practice

Athapol Anunthavorasakul\*



## The Development of Environmental Education Curriculum in Thailand

Environmental Education is one of the new born fields in Thai education. It was included in the Thailand National Curriculum for the first time in B.E. 2521 (A.D. 1978) in primary and lower secondary school curriculums. Three years later (A.D. 2524, B.E. 1981) it was put in the higher secondary school curriculum.

Environmental Education appeared in the curriculum not as a single subject, but as an integrative part in some core subjects. In the two secondary school curriculums, Environmental Education was integrated with the content of science and social studies. In the primary school curriculum, it was a part of the life experiences which combined science and social studies together. The content of Environmental Education included natural system, environmental problems, and environmental protection.

In B.E. 2533 (A.D. 1990), when there was a revision of the national curriculum for all levels, the role of Environmental Education in the curriculums changed as well. In the secondary school level, Environmental Education appeared as one of the elective subjects in the science and social studies groups. The subjects that are considered a part of Environmental Education are Environmental Education, Energy and Environment, and Environmental Science. In addition, Environmental Education was integrated into geography courses in Grade 7-9 and Grade 11. In the primary school curriculum, Environmental

Education was a part of the life experiences. The content of Environmental Education that appeared in the primary school curriculum was as follows: (below)

Grades	The content of Environmental Education
Grade 1-4	Unit 1 Living organisms (Growth, Reproduction, and Propagation) Benefits and Practices of the preservation of natural resources, plants, And animals Unit 2 Around us (Soil, Water, Air) The relationship between humans and the environment Consequences of environmental changes
Grade 5-6	Unit 1 Natural resources and the environment The effects of the environment and biosphere on humans, plants, Animals, and the economy Natural resource preservation and environmental protection

(Sugree and Homsanit,1998)

---

\* Instructor and Environmental Educator, Faculty of Education, Chulalongkorn University, Thailand

The national curriculum was revised again in B.E. 2544 (A.D. 2001) after the Educational Act was passed in B.E. 2542 (A.D. 1999). Content integration was the theme of the instructional practice in this curriculum. In this, the subject matters are woven into 8 content subjects including Sciences; Mathematics; Social Studies, Religions and Culture; Thai; Foreign languages; Arts, Music, and Traditional dancing; and Health and Physical Education. In this curriculum, Environmental Education was not included in any particular content subject; it was required to be integrated into all subjects, especially in Sciences, Social Studies, Religions and Culture, and Health Education.

The integration of Environmental Education into the content subjects is accommodated well in the new curriculum. Schools are required to use the subjects in the core curriculum as curriculum framework for developing their own school curriculum. With this freedom, the schools can develop subjects related to their local environment, environmental problems, and local wisdom. In creating the school curriculum, the schools have opportunities to build learning networks and develop the Environmental Education curriculum with local communities. This relationship between schools and community is consistent with the community-based education approach practiced in several countries around the world.

### **The Government Policy and Support**

The public sectors that play an important role in supporting Environmental Education in Thailand are the Department of Environmental Quality Promotion (DEQP), under The Ministry of Natural Resources and Environment; and the Office of the Basic Education Commission (OBEC, under The Ministry of Education. The Office of the Basic Education Commission has supported the integration of Environmental Education into the National Curriculum. DEQP has helped support the connection among schools, institutions, public sectors, local community, and NGOs. Moreover, DEQP has helped produce visual and audio media and printed materials as well as arrange educational training for teachers in the network.

During B.E. 2540-2544 (A.D. 1997-2001), the Department of Environmental Quality Promotion set the following policies in regard to Environmental Education in their national plan. The policies targeted schools, educational institutions, public sectors, private sectors, and NGOs. These policies included the following: (DEQP,1997)

- (1) Administration and management of Environmental Education
- (2) Building an environmental information network for education
- (3) Education and training of Environmental Education
- (4) Developing Environmental Education instruction and activities
- (5) Non-formal Education in Environmental Education
- (6) Promoting the roles of mass communication and NGOs in Environmental Education
- (7) Developing physical environments of local communities
- (8) Doing research in Environmental Education
- (9) Producing and collecting Environmental Education materials
- (10) International collaboration for Environmental Education

The implementation of the policies created many projects that promote Environmental Education in all kinds of educational forums: formal, non-formal, and informal. One successful project that promoted the development of Environmental Education was the establishment of the official Provincial Environment Education Centre (PEEC) in provincial level. This project is a collaboration between the Department of Environmental Quality Promotion (DEQP) and the Ministry of Education. The school that is selected to be the PEEC is the coordinating school for all the schools and other public and private sector groups in its province. The DEQP supports the centre with training, materials, and financial

assistance. The Ministry of Education has a supervisory unit that helps the centre in each province develop the curriculum for the schools in its network. To date there are 59 PEEC schools in Thailand. (Srisuk,2004)

Starting in B.E. 2545 (A.D.2002), the DEQP began making annual plans instead of four-year plans. At present the department is in the process of making a long-term plan that will match the Thai government's commitment to the UN Decade of Education for Sustainable Development (DESD).

### **Roles of NGOs and Collaborated Projects to Strengthen Environmental Education**

NGOs have played an important role in developing Environmental Education in Thailand. With their efficient management system, NGOs have built networks for collaboration amongst themselves, both domestically and internationally, as well as between themselves and government. This has helped many Environmental Education projects succeed.

Examples of some successful projects include:

(1) Magic Eyes Chao Phraya Barge Program (1992-present), Thailand Environment and Community Development Association: TECDA (or Magic Eyes)

This program's primary aim is to provide unique and fulfilling experiential environmental education opportunities to students. It uses various activities and techniques to increase awareness and understanding between environment and human relationships within the Chao Phraya watershed. The main activities include a barge trip, land-based trip, and school outreach trip. Most activities focus on (1) Natural history and ecosystem studies (2) Thai culture and history (3) Natural Resources (4) Environmental awareness & understanding. Each year approximately 9,000 people and over 65 schools and organizations join this program. Past corporate sponsors of this program include: Caltex , Shell, and BP Oil, Toshiba and Thai Plastic Chemical. (Retrieved January 30, 2004, from Magic Eyes Chao Phraya Barge Program Magic Eyes Chao Phraya Barge Program Web Site: <http://www.magiceyesbarge.org>)

Apart from the barge program, Magic Eyes has another interesting project named "Dawn Project (Phase 2)" which is a two-year (2002-2004) national energy conservation project funded by the Office of Energy Policy and Planning and supported by the Ministry of Energy and the Ministry of Education. For Phase Two, 125 schools are encouraged to participate in energy and environmental conservation school activities that reach out to the community. Magic Eyes is responsible for developing a series of seven energy education activity handbooks designed with input from teachers. The handbooks assist teachers and schools to integrate energy education and energy conservation practices into their curriculum; management systems in turn provide them the tools to reach out to the community. (The Dawn Project phase 2. Retrieved January 30, 2004, from Thailand Environment and Community Development Association Thailand Environment and Community Development Association Web Site: <http://www.magiceyes.or.th>)

(2) The River and Stream Investigation Project for Youth : RSPY, Green World Foundation (1999-2002)

With funding provided by the Danish Cooperation for Environment and Development (DANCED) Denmark, this project aims to enhance environmental education among participating teachers and students with special focus on monitoring the quality of stream water, while coordinating activities with local communities and raising their responsible attitude towards their communities. In collaboration with 51 schools in the Ping River catchment area in Chiang Mai and Lumphun provinces, the main outputs of the project are (1) Co-ordination of a teacher and student network in the River Ping catchment area; (2) Production of the stream investigation package; (3) Investigation of issues related to local stream health by secondary school teachers and students; (4) Sharing information among local communities; and (5) Dissemination of information to the public and interested parties. (RSPY. Retrieved January 28, 2004, from Green World Foundation Web Site : <http://www.greenworld.or.th>)

(3) The "Developing EE activities with community forestry participatory case study" project (1992 - 1996)

This project was a collaboration between the Ministry of Education and Regional Community Forestry Training Center for Asia and the Pacific (RECOFTC). Its aims were to integrate the content of forestry-community management into school curriculums. Eight primary and secondary schools in Chieng Rai and Lamphun, 65 teachers, administrators, and researchers were involved. The main activities were training teachers (focusing on case study methods, using Participatory Rural Appraisal :PRA) and networking schools, communities, and local GOs (such as supervisory units at the provincial level). Since the project finished in 1996, school networks, which was the main outcome of the project, are still active and are expanding to other schools in nearby areas. Forestry conservation is an interesting impact on communities that is occurring (Chuchart, Anunthavorasakul and Trinate, 2003)

(4) Strengthening Environmental Education in Thailand Program: SEET project (2001-2004)

SEET is a collaboration project of MOE, DANIDA (Denmark), and five NGOs who actively work with the local communities and schools in five provinces. These organizations are: Green World Foundation (GWF) in Chieng Mai; Population and Community Development Association (PDA) in Khon Khaen; Thai Education Foundation (TEF) in Chachoengsao; World Wide Fund for Nature (WWF) in Uthai Tani; and Good Governance for Social Development and the Environment Institute (GSEI) in Krabi. In each province, 7 primary schools and 2 secondary schools were selected to participate in the project, making a total of 45 schools. The targeted groups are all the teachers in the 35 primary schools and a maximum of 20 teachers from each of the 10 secondary schools.

SEET's main activities are (1) In-service training on EE concepts and methods, targeting MOE central staff as well as provincial and district supervisors, school administrators (heads) and teachers; (2) Development of an EE-related database; (3) Development of a system for action research and formative evaluation of EE experiences; (4) Development and dissemination of resource materials for supervisors, administrators and teachers; (5) National, regional and international conferences for exchange of experiences in EE; and (6) Development of EE initiatives in individual schools and with other organizations and stakeholders. SEET will run until October 9, 2004. (SEET, 1999)

EE Networking for Sustainability: From schools to communities

According to the above policies and practices, the achievement of EE programs in Thailand depends on many key factors (see Figure 1).

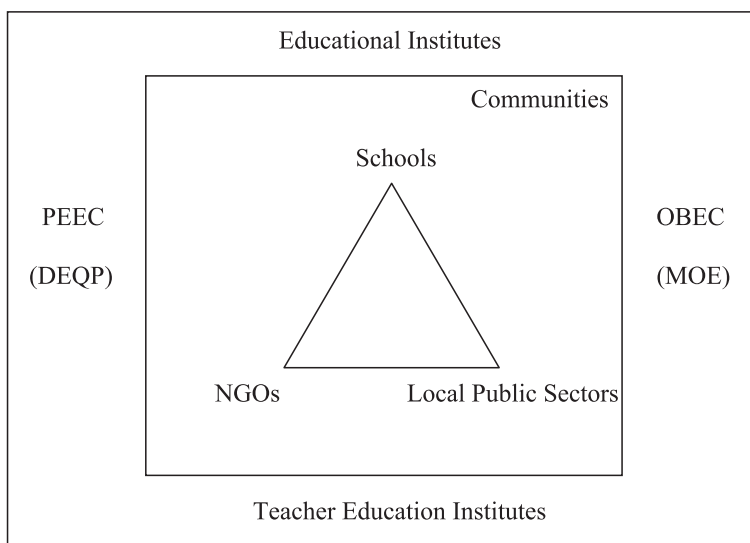


Figure 1: Key Factors to strengthen EE in Thailand

The successful EE programs have four elements:

(1) Cooperation among schools, NGOs, and local Local Public Sectors

Building a network of schools, NGOs, and local public sectors can significantly result in successful EE programs. Schools' operational programs alone mostly face unsustainable achievement. On the other hand, schools which link to local public sectors and NGOs have more chances to develop their programs. Most NGOs implement new ideas and innovations that help develop an EE program. Local public sectors are influential in supporting or facilitating schools' work with surrounding communities including other schools nearby.

(2) Community support

In many projects, we found that community links strongly strengthen the EE program, especially in communities which have worked together with their schools for a long time. Schools or EE projects that can help community agents understand EE and involve them to participate in developing and operating the projects will have a better chance of sustaining their EE programs or projects.

(3) Roles and linkages between DEQP and OBEC

As previously stated, the cooperation between DEQP and OBEC to establish the Provincial Environmental Education Centre (PEEC) is significant. At present, PEEC plays an important role to build an EE network at the provincial level between schools, their local communities and DEQP. This network is used to communicate information, share experience, and widely promote EE innovation to the 59 PEEC schools. At the same time, OBEC uses this network to support the educational reform process that emphasizes Integrated Learning and collaboration within a local community. It can change a teacher's attitude about EE, that "EE program in schools is an extra workload for them", to be more positive. The schools that closely participate with PEEC have more opportunity to create successful EE programs.

(4) Involvement of Teacher Education Institutes and Educational Institutes

At the project operation level, the involvement of teacher education institutes and educational institutes is very important because of their staff expertise. The staffs in these institutes are expert in the education field. They can help develop a training curriculum, produce teaching manuals and materials, implement innovation and ideas, and monitor and assist in the development of EE projects. This collaboration certainly strengthens the EE process.

In developing EE in Thailand, some constraints, obstacles, and problems should be considered. These include:

(1) Lack of EE central organization

Even though DEQP and OBEC are both government organizations with the responsibility to promote and to support the development of EE, they are under two different administrative systems. DEQP is under the Ministry of Natural Resources and Environment, and OBEC is under the Ministry of Education. This causes problems.

To build a stronger, more efficient network, it is necessary to have a central organization manage the EE programs.

(2) The continuum of administrators in organizations and schools

For the simple reason that most schools are government organizations, they have continuously faced the problem of administrator rotation. Therefore, EE projects face the difficulty of losing knowledgeable people who are in charge. It takes time for the new administrators to learn about the program. This rotation interferes with project development. If departing administrators or staff can train their replacements, this inefficiency can be lessened.

(3) Lack of learning the experiences from one EE program/project to each other

Some schools participate 2-3 EE project from NGOs, PEEC, and MOE, but they can't link learning experience from one to each other. For example; school A used to join in the Dawn Project phase 1 and then it involved to RSPY, they have

enough experiences and should play role as a leader in a new project but they still started over with new theme (which the project focus on) and new approach. There are many workshops in each project, but the impact to some schools is possibly same level of the achievement.

(4) Confusion about EE practices

One of the most important problems is the misunderstanding about EE instruction that some teachers, administrators, educators, as well as EE project managers have such as; an integration approach, whole schools approach, community-based learning, utilizing of learning resource in nature and community, and etc.

(5) Too narrow a focus on formal education

Most EE projects only concentrate on schools or other formal education institutes. The EE network should be expanded to cover other non-formal and informal education units.

### The Challenging Mission

The Challenging Mission for EE in Thailand is "Action without a coordinated center". Even though building an EE network between the public sectors and NGOs has occurred, it just lightly influence to strengthen EE or to broaden targets involved in progress of Education for a Sustainable Development.

## References

- Chuchart Alisara ,Anunthavorasakul Athapol and Trinate Lawan (2003). Lesson Larned from EE Activities in the Ministry of Education: A stusy undertaken within the SEET Project
- DEQP : Department of Environmental Quality Promotion> (1997). Environmental Education Mater Plan and Action Plan (1997-2000). The Ministry of Science Technology and Environment
- Sugree Lawan and Homsanit Thepwanee. (1998). Teacher Education for Environmental Development. Faculty of Education Chulalongkorn University
- The Educational Act 1999. (1999). The Ministry of Education.
- Magic Eyes Chao Phraya Barge Program.(2003). Environmental Education Teaching Manual for Chao Phraya Watershed. Thailand Environmental and community Development Association Strengthening Environmental Education in Thailand Program (SEET) (2002). Project Summary. The Danish Ministry of Foreign Affairs, Denmark and The Ministry of Education, Thailand