

## **The Study on Sustainable School Implementation in Victoria, Australia**

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### **Abstract**

This is a survey research aimed 1) to study in Sustainable School Implementation in Victoria, Australia and 2) to propose appropriate approaches for the development of Eco-school in Thailand. Data was collected by conducting document reviews, professional conversation and observation. Target groups were the representatives of school staff (5 principals, 12 teachers and 54 students) from 8 Primary Schools that have been accredited 5 star Sustainable Schools in Victoria, Australia. Instruments used in this study were Professional Conversation Structure, Interview Checklist, Contextual Data Form, recorder, field note and a camera. Content analysis was used to analyze data.

It was found that 1) the schools that participated in the Victorian Sustainable School Initiative must implement the core module as a compulsory condition and then they can choose to implement some programs or all programs under resource modules which are Energy, Water, Waste and Biodiversity programs, 2) All 8 primary schools have implemented all 4 mentioned programs under Resource modules. Each program was divided into 4 areas as follow: Policy and physical, Programs, Activities and Community Links. The practical procedures were similar and differences depend upon the context of the schools. But one task that all 8 schools have carried out in the same way was to set up the Student Action Team to support all mentioned programs to allow students to get involved in all activities, 3) there are some distinguishing characteristics that have made Sustainable School in Australia a successful project: 3.1) the approaches and initiative that have been developed by central government, which all states can apply to their schools such as the Australian Sustainable School Initiative (AuSSI) and the Victorian Sustainable School Initiative; 3.2) the schools adopt a whole-school approach; 3.3) integrated curriculum and 3.4) most of the state government, private sectors, local organizations and parents support the schools to become the Sustainable Schools.

**Key words:** Sustainable School, Implementation, Australia

## Introduction

The environmental problems which have occurred recently such as global warming, pollution, depletion of natural resources and environmental deterioration are undeniably caused by human themselves. The ways they treat nature by focusing on the development and growth leading to the rapid exploitation of natural resources, and resulting in the changing of quality and our ways of life, have increased on a daily basis. Such treatment of natural resources has become an imminent threat to the survival of human beings. The environmental problems that occurred have raised every nation's awareness that environmental problems are global problems that everyone has to take responsibility together. We must therefore find effective ways, approaches and strategies to solve the problems as well as to protect and conserve the environment and natural resources.

Education for Sustainable Development (ESD) is an effective approach to give sustainability to the development of the society, the economy, and also the environmental management. In December 2002, the UN General Assembly adopted, by consensus, a resolution establishing a Decade of Education for Sustainable Development. The resolution designates the ten-year period as 2005-2014, and declares UNESCO as the lead agency to promote the Decade. The aims of the resolution were to encourage the member countries to integrate the ESD approach at local level into various learning conditions including integrating ESD into all education systems level and to promote education as an important tool in social development. The vision of ESD is "a world where everyone has the opportunity to benefit from quality education and learn the values, behavior and lifestyles required for a sustainable future and for positive societal transformation" (UNESCO, 2002).

Many countries around the world have responded to this approach and tried to implement it in their domestic arrangements. In Thailand, it has been recognized that education is an important tool for sustainable development. Therefore, there have been movements towards the new direction by means of an educational reform. Such a reform is, according to the National Education Act 1999, Clause 33, called "National Education Plan." The plan is based on a philosophical concept of Sufficiency Economy, which is bestowed by His Majesty the King and provides guidance on appropriate conducts covering numerous aspects of life. The philosophy puts an emphasis on the idea of 'middle path' which encourages balanced and reasonable conducts. The goals are to achieve "Sustainable development and proper well-being for Thai people".

Other organizations such as the Department of Environmental Quality Promotion (DEQP) is trying to implement ESD by developing Eco-school Project in 2007, which have 30 schools around Thailand participating in this project as piloting schools. The criteria and indicators for Eco-school were also developed as guidelines for promoting environmental education in the schools.

However, the transformation of schools from their current conditions to becoming more sustainable is a long process which requires the support and cooperation from both relevant governmental and private sectors, including the civil society. In Thailand at present, many relevant projects are still in a pilot stage and not yet fully realized, thus the results of the projects are still unclear and incomplete.

In Australia, the government has further developed the existing approaches to strengthen ESD at a policy and programs level in all sectors. They have also emphasized the

importance of partnerships, monitoring and evaluation, and the broadening of environmental education and ESD, with a particular focus on economic, social and environmental aspects. Furthermore, the Australian Sustainable Schools Initiative (AuSSI) has been developed since 2002, to establish a national network of Sustainable Schools as demonstrations of green technologies, design and behaviors, supported by a challenging sustainability curriculum, which are closely connected to the local community. At present, there are more than 2,000 schools participating in the AuSSI. In Victoria, the authority is also applying the AuSSI to its own model called “the Victorian Sustainable Schools Initiative” to work with the schools, and recent reviews have already shown some positive outcomes.

It has been clear that the implementation of Sustainable School in Australia is very effective and produces tangible results. Taking this into consideration, Australia would be a suitable case study for Thailand. It is also hoped that the results from this research would prove useful for the relevant Thai organizations who take parts in the development of Thailand’s Eco-school.

### **Research question**

1. What are the form / formats of Sustainable School Implementation in Victoria, Australia?

### **Purposes of the study**

This study attempts to achieve the following specific objectives:

1. To study the outcomes of Sustainable School Implementation in Australia.
2. To propose appropriate approaches for the development of Eco-school in Thailand.

### **Research scope and limitation**

The schools in this research mean the 8 Primary Schools that have been accredited 5 star Sustainable Schools (2002-2004) in Victoria, Australia

### **Research methodology**

This research is Survey Research

**Population** in this research were school staff (head of schools, teachers and students) from 8 Primary Schools that have been accredited 5 star Sustainable Schools in Victoria, Australia. The 8 schools were selected by an Australian Adviser.

**Sample group** was 17 of head of schools and teacher and 54 students.

**Research tools** were related documents, professional Conversation Structure, Interview Checklist, Contextual Data Form, field note, camera and recorder.

**Data collection** Data collection will be divided into 2 parts as follows:

Part 1: Conducting document reviews which are related to Sustainable Schools in Australia and Eco-school in Thailand.

Part 2: Conducting field work survey, observation and having professional conversation which had been carried out in Australia.

## Data analysis

Content analysis was used to analyze the data and make a descriptive report.

## Results and discussion

1. The Sustainable School Initiative Project in Victoria consists of 2 Modules as follows:

1.1 **Core module** is compulsory which all participated schools must implement. It including the following tasks: developing a vision as a Sustainable School; developing and prioritizing future themes and actions; developing action plans with goals and targets, and organizing the workshop for the entire team of staff for becoming a Sustainable School including make whole school involvement.

1.2 **Resource modules** consist of 4 programs as follows: Energy, Water, Waste and Biodiversity Programs. Each school can implement some programs or take on all 4 programs. The 8 schools in this research have implemented all 4 programs.

1.3 All 4 mentioned programs are under Resource Modules and can be divided into 4 aspects as follows: Policy and Physical, Programs, Activities and Community Links.

It was found that the Sustainable School Initiative Project in Victoria, Australia attempted to develop the schools to become Sustainable Schools by applying the approach of The United Nation Decade of Education for Sustainable Development: DESD 2005-2014 (Daniella Tilbury, 2006) and applied the integrated approach on the teaching and learning, developing the environment, economy and society for Education for Sustainable Development which is onsistent with the conclusion of Annette Gough (Annette Gough, 2006). While the Eco-school under the Department of Environmental Quality Promotion (DEQP) in Thailand, the participated schools must develop their schools to include 4 tasks: Governance and Environmental Education Policy; Process of Learning; Environment and Resources Management System and Environmental Education Network and Participation. The following topics: Waste management, Water, and Energy are under the Environment and Resources Management System Task (DEQP, 2008). It was found that the Sustainable School in Australia and Eco-school in Thailand have similar frameworks, which focus on the whole-school approach that leads to the using of the environment and natural resources in more sustainable way. However, the Eco-school project in Thailand is still an early stage and lacks clear emphasis regarding environmental issues, while in Australia is clearly focused on the 4 programs as follows: Waste, Water, Energy and Biodiversity.

2. All 8 target schools have implemented all 4 programs (Energy, Water, Waste and Biodiversity) under the Resource Modules and each program can be divided into 4 aspects as follows: Policy and Physical, Programs, Activities and Community Links. There were both similarities an differences in the operations of each school, depending on the context of each school. For example, the schools which are located near the river has implemented the programs that allow their students to do activities and learn about water pollution and water conservation such as Our River Our Life Program and Water for Life Program. The schools with large areas are setting the Environmental Sustainability Area, which consist of Organic Vegetable Garden, Chicken Hut, Pig Farm, Hot House, Worm Farm, Composting Bin, Frog Pond and all schools have organized the Rubbish Free-lunch activity. All 8 schools

were also setting up the Student Action Team to support and allow students to get involved and participate in the activities of each program.

3. The students in the target schools have collectively planned and organized environmental activities in the schools such as developing Rubbish Free-lunch Policy, making the Organic Vegetable Garden for each class, making Frog Pond for local native frog and making Nest boxes for local native birds, arranging the group to look after Chicken Hut and Worm Farm and planting native grasses and trees in the school area.

4. The distinguishing characteristics which have made the Sustainable School in Australia a successful project are as follows

4.1 The main principles and operating plans have been formulated by the central Government to ensure consistency, but they are, at the sametime, flexible enough to be adapted and applied to the specific, local context of the schools. Such plans are, for examples, the Australian Sustainable School Initiative (AuSSI) and the Victorian Sustainable School Initiative;

4.2 The schools have implemented their programs by using a whole-school approach that consist of important elements such as Governance, Curriculum organization, Teaching and Learning, Resource Management, Physical surrounds and Networks and partnerships;

4.3 The schools have adopted an integrated curriculum approach to education which incorporates the environment in to all subjects and;

4.4 Most of the government, private and local sectors including student's parents are supporting the schools to develop their schools to become the Sustainable Schools.

## **Recommendations from research**

Recommendations for developing Eco-school for the schools in Thailand are as follows:

The schools in Thailand should develop their schools to become Eco-school by using a whole-school approach to allow everyone in the schools to get involve with procedures and activities that lead to a sense of ownership and foster a more sustainale and environmentally friendly behavior.

The schools in Thailand should develop curriculum to include Core module which help them create a vision of themselves as a sustainable school, which developing and prioritizing future themes and actions and developing action plans with goals and targets for each program under Resource Modules. The schools should allow the whole school to get involved in developing curriculum.

The schools should implement the Resource modules, which consist of 4 programs: Energy, Water, Waste and Biodiversity. For the schools in Thailand that want to develop their schools to become the Eco-school should develop more programs that applied the Philosophy of the 'Sufficiency Economy' especially 'the New Theory', because Thailand is an agricultural country. An application of the Philosophy of the 'Sufficiency Economy' would effectively constitute integrated the activities in the 4 programs: Energy, Water, Waste and Biodiversity to emphasize the balance of Eco-agriculture management which will lead to the environmental sustainability.

## Recommendations for research

1. Further research should be conducted to study the outcomes of taking the Sustainable School's framework from Australia to apply to the schools in Thailand.
2. Further research, which takes the Philosophy of 'Sufficiency Economy' to apply in developing the school to become the Eco-school., should also be conducted.

## Acknowledgement

The authors are very appreciative of the financial support for doing research in Australia provided by Graduate College, Khon Kaen University; The authors are very appreciative Professor Bruce Jeans for his kind assistance in conducting research in Australia.

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