

Environmental Education in Malaysia and Japan: A Comparative Assessment

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Abstract

Malaysia has developed partnerships with various countries such as Denmark and Japan in terms of research, Environmental Education (EE), capacity building and other efforts. One of such partnerships is the Bornean Biodiversity and Ecosystems Conservation Programme (BBEC), a five-year programme implemented by the Sabah state government and Universiti Malaysia Sabah, and assisted by the Japan International Co-operation Agency (JICA) in the state of Sabah in Malaysia. Through this kind of partnership, the link between Malaysia and Japan is increasingly strengthened. Based on literature and experience, this paper assesses those practices of EE towards Sustainable Development (SD) in both countries that show some differences and similarities in terms of policies, strategies and implementations, and attempts to learn from Japanese experiences of EE.

Introduction

Agenda 21, a blueprint for action towards SD for the 21st century, was established in Rio de Janeiro in 1992 during the United Nations Conference on Environment and Development (UNCED). It is a plan to achieve a sustainable society in this environmentally and economically inequitable world.

Chapter 36 of Agenda 21 stresses on the following:

‘Education, including formal education, public awareness and training, should be recognised as a process by which human beings and societies can reach their fullest potential. Education is critical for achieving environmental and ethical awareness, values and attitudes, skills and behaviour consistent with sustainable development and for effective public participation in decision-making. Both formal and non-formal education are indispensable to changing people’s attitude so that they have the capacity to assess and address their sustainable development concerns’.

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With rapid population increase and economic growth in many countries, the environment is becoming more vulnerable and natural resources are depleted faster to meet the basic needs. Therefore, to counter these challenges, it is extremely crucial to vigorously step up efforts to fully utilise the tools outlined in Chapter 36 of Agenda 21.

EE is one of the tools that help to achieve SD. Through the process of EE, individuals obtain an understanding of the concepts of and knowledge about the environment. They also acquire experience, values, skills and the knowledge necessary to form judgements to participate in decision-making and to take appropriate action in addressing environmental issues and problems. EE is an instrument to enable the participation and learning of various age groups based on a two-way communication, both formal and non-formal.

A Comparative Assessment Of Japan And Malaysia

The Bornean Biodiversity and Ecosystems Conservation (BBEC) Programme in Sabah

Malaysia has developed partnerships with various countries such as Denmark (through DANIDA) and Japan in terms of research, EE, capacity building and other efforts. One of these partnerships is the Bornean Biodiversity and Ecosystems Conservation Programme (BBEC), a five-year programme implemented by the Sabah state government and Universiti Malaysia Sabah, and assisted by the Japan International Co-operation Agency (JICA) in the state of Sabah, Malaysia.

The BBEC Programme in Sabah involves many federal and state departments and agencies, NGOs and learning institutions. It was launched on 26th February, 2002 for a period of five years. The steering committee is headed by the Sabah State Secretary.

The BBEC Programme aims towards the conservation of the biodiversity and ecosystems in Sabah and their sustainable development. It seeks to strike an optimal balance between biodiversity and ecosystems conservation and the sustainable use of natural resources.

The aim of this programme is achieved through the integration of four components:

- Research and Education
- Park Management
- Habitat Management
- Public Awareness

The Public Awareness Component in particular, actively promotes EE, with a focus on biodiversity and ecosystems. Its aim is to create models to change the behaviour of the people in Sabah towards the conservation of biodiversity.

Why a Comparative Assessment between Malaysia and Japan?

One of the strategies of the BBEC Programme is to build the capacity of the staff involved in the protection of the environment and natural resources in Sabah. Through the exchange of ideas, expertise and experience between the Japanese and Malaysians, many lessons can be learned. EE practitioners in Sabah can compare with and learn from the Japanese experience in EE and networking, and improve the implementation of EE in Sabah.

Based on experience and literature, this paper assesses the practices of EE towards SD in both countries.

Situational Analysis: Literature Comparison And Experience

EE towards SD in Malaysia

Background

In Malaysia, the environment began to receive more attention in the early 1970s. At the national level, the Department of Environment (DOE) was established in 1975 to enforce the Environmental Quality Act, 1974. DOE is in charge of environmental management in Malaysia as a whole, including the promotion of EE. Each state in Malaysia has at least one branch of the DOE.

In the states of Sarawak and Sabah, the situation is unique because under the Federal Constitution, land falls under state, not federal authority. The two state governments have established their respective environmental agencies. Environmentally, the federal and state governments of Sarawak and Sabah have different jurisdictions. In Sabah, the state government established its environmental agency, the Environment Protection Department (EPD) in 1998, in order to manage natural resources and the environment. .

The state and the federal environmental departments have always worked together, especially in promoting EE awareness, and have conducted many programmes. Each department has its own EE section or unit, to promote and implement EE programmes.

EE in Malaysia is geared towards addressing environmental challenges such as littering, water pollution, air pollution and the degradation of biodiversity.

Policy, Strategy and Implementation

Malaysia's National Policy on the Environment, 2002, aims at the continued economic, social and cultural progress of Malaysia, and an enhancement of the quality of the lives of its people, through environmentally sound SD. The objectives of the policy are to achieve:

- A clean, safe, healthy and productive environment for present and future generations.
- The conservation of the country's unique and diverse cultural and natural heritage with effective participation by all sections of society.
- Sustainable lifestyles and patterns of consumption and production.

The policy seeks to integrate environmental considerations into developmental activities and in all related decision-making processes, to foster long-term economic growth and human resource development, and to protect and enhance the environment. It also complements and enhances the environmental dimensions of other existing national policies such as forestry and industry.

One of the key areas of the Green Strategies outlined in the policy is 'Education and Awareness'. The emphasis on Education and Awareness is in line with the recommendations of Agenda 21. Among the strategies for Education and Awareness are:

- To devise and introduce comprehensive formal and informal EE and training strategies and information dissemination programmes.
- To integrate environment and development into educational activities from school to tertiary institutions for which relevant methods and materials will be developed.
- To establish national centres for excellence in interdisciplinary research and education in environment and development.
- To review educational curricula at all levels to ensure a multidisciplinary approach in environmental and developmental issues.
- To actively promote non-formal educational activities at local and national levels.
- To strengthen the role of the media in disseminating environmental information.

Long before the National Policy on the environment was implemented, much had been done in terms of promoting EE and awareness in Malaysia. The emphasis now is on improving, strengthening and reviewing the existing practices and methods, and also, on learning from previous experiences.

Various federal and state government departments, the private sector, educational institutions and NGOs are engaged in the active promotion of EE in both the formal and non-formal areas, by targeting diverse groups such as teachers, students, government agencies, developers, restaurant operators and industries/factory owners.

Formal Environmental Education

In terms of formal education, the Ministry of Education has played an important role through its effort to develop a curriculum for EE and implementing various teaching and learning strategies to enhance awareness and internalise values on the importance of environmental protection in all schools in Malaysia. In line

with the National Education Policy, 'Environmental Education across the Curriculum' has been introduced in both primary and secondary schools since 1998. EE is not taught as a single subject but is taught across the subject board and integrated in each subject from Mathematics to Religious Studies.

However, in spite of this achievement in developing the curriculum for EE, there are challenges that need to be overcome in its practical implementation. Although the Ministry of Education provides a guidebook on EE to all schools, and they have all been exposed to EE across the curriculum, the implementation is uneven. One of the problems identified in implementing EE in schools is that the guidebook is rarely utilised by some principals and/or teachers. Some teachers are even unaware of its existence. The guidebook does outline proposed activities for EE but these may not be detailed enough for some teachers to conduct EE programmes. Also, some teachers may not be able to develop EE programmes themselves.

In Sabah itself, the infusion of EE into the various subjects and the implementation of EE activities in school, such as recycling, treeplanting, etc, are not uniform. Some schools may be very successful while others may have only a lukewarm response. For example, based on random interviews with various government and government-assisted schools during a visit to judge the Environmentally-Friendly School Award¹ in Sabah, in January 2004, and October-November 2004, it was found that the successful implementation of EE in schools depends greatly on the commitment, efforts and the level of enthusiasm of their headmasters, their principals and the teachers. The usual reasons for not being able to implement EE are: difficulty in infusing EE into the subject, rushing to finish the syllabus, and financial constraints in organising EE activities in schools. On the other side of the coin, the successful schools do not encounter these problems due to their commitment, tireless effort, enthusiasm and their creativity in finding means and ways to continuously improve. Based on this general observation, efforts by the relevant ministries and departments need to be vigorously stepped up to inculcate through schools the culture of caring for the environment. At the tertiary level, environmental science and environment-related courses are offered by many public universities. Over years of research, these universities have built up their expertise in environment-related fields.

Non-Formal Environmental Education

In non-formal settings, various government organisations and NGO's are involved in implementing EE in all the states of Malaysia (see table 1 and table 2). Various programmes and activities such as talks, exhibitions, radio shows, drawing or colouring competitions, clean-up campaigns, tree planting, seminars, workshops and other environmental training have been carried out. Environment-related events such as Malaysia Environment Week, Earth Day, World Environment Day, Wetlands Day and Water Day are also celebrated each year.

¹ This Award is a programme for primary and secondary schools in Sabah, and is jointly organised by the Environment Protection Department, the Federal Department of the Environment, the Education Department, Environmental Action Committee, Sabah and the Kota Kinabalu City Bird Sanctuary. One of the authors of this paper, Ms. Pudim, was a judge in this programme.

In Sabah, particularly, these programmes and activities are also actively promoted and implemented by various organisations. Due to the many organisations involved in EE implementation, a network known as the Sabah Environmental Education Network (SEEN) has also been set up. SEEN was set up to create synergy between the the various organisations, in order to build strong co-operation and co-ordination amongst the implementing agents. The Secretariat is stationed in the Environment Protection Department, Kota Kinabalu, Sabah.

The objectives of SEEN are:

- To provide a platform for more cohesive EE programmes and activities in Sabah.
- To provide a platform for training EE practitioners in Sabah.
- To establish an effective network among the public and private sector, and NGOs engaged in EE programmes and activities in Sabah.
- To share expertise, information and other resources in the implementation of EE programmes and activities in Sabah.
- To evaluate the effectiveness of EE programmes and activities.
- To establish networks with local, national and international EE-related organisations.

SEEN's strategies include:

- To establish a close collaboration among EE-related organisations.
- To establish a Memorandum of Understanding (MoU) between the relevant public and private sectors, and NGOs.
- To compile a comprehensive data of EE practitioners.
- To facilitate the training of SEEN members.
- To establish effective communication channels.
- To undertake collaboration and the pooling of resources (funds, manpower, information) among the members of SEEN.
- Members of SEEN to record, evaluate and monitor the progress of programmes and activities through the compilation of periodic reports.
- To establish close links with relevant local, national and international organisations through the sharing of information, experience and expertise.

The importance of EE in Sabah has been emphasised in the newly enacted Environment Protection Enactment, 2002, by the provision in Section 24 (1) (h) of the Enactment, 'to promote environmental awareness on the importance of environmental protection, conservation and quality'.

At the national level, there is also a provision 'to provide information and education to the public regarding the protection and enhancement of the environment' in the Environmental Quality Act, 1974 (Section 3 (1) (1)).

For creating awareness or as learning materials, various organisations have prepared and/or published materials such as posters, brochures, CDs, booklets, guidelines, key-chains, bookmarks, t-shirts, caps, calendars, etc.

Table 1: Examples of promotion of EE at the national level by the Department of Environment Malaysia

Target Groups	Examples of Activity Conducted
Primary/Secondary School Students	Environmental Awareness Camps, cleaning-up, drawing, treasure hunt
Government departments/agencies	Environmental seminar
Public	Tree planting, exhibition, talk
Owners of Industries, restaurant operators	Environmental seminars (schedule wastes, used oil management, etc)
Young writers and journalists	Poetry Writing

(Reference: <http://www.jas.sains.my/jas/default.html>)

Table 2: Examples of promotion of EE at the state level by the Environment Protection Department Sabah

Target Groups	Example of Activity Conducted
Primary/Secondary School Students	Talks, Exhibitions, Drawing and Colouring Competition, Quiz, Debate, Environmentally-Friendly School Award, Recycling, Tree-planting
Government departments/agencies	Seminars/Workshops on environmental management & enforcement
Public	Radio Talk and Quiz, Photography, Cleaning-up
Developers, NGOs, Private Sector	Seminar/Workshop on Environment
NGOs	River Cleanliness Campaign

(Reference: Environment Protection Department Sabah)

EE towards SD in Japan

Background

EE in Japan has come a long way. It has been steadily conducted since the establishment of the National Park System. The policy on national parks in Japan in the earlier stages was focussed mainly on the protection of the landscape. Outdoor activities were promoted as early as 1945. In 1950, the National Park Association of Japan, a non-profit foundation, was set up. Since then, many visitor centres in national and quasi-national parks were developed as bases for nature conservation education. A system of (volunteer) Natural Park Leaders was developed to provide various interpretive services to visitors.

In 1971, the Environment Agency was established in Japan. After 1975, many environmental conservation programmes and activities were organised and initiated by the citizens, and eventually networks for these activities were developed.

The Environment Agency was set up by the Environmental Education Council in 1986 as an active measure for EE. In 2001, the Environment Agency became the Ministry of Environment and made a fresh start when all ministries and agencies in Japan were re-organised.

The Ministry of Environment exclusively handles the planning and formulation of all government environmental policy and planning, and all waste and recycling measures. It has a number of bureaus and departments, with specific roles and duties. The Ministry promotes EE in Japan through the Environmental Policy Bureau. Various EE measures are implemented to build an environment-friendly society.

Policy, Strategy and Implementation

In 1973, the Japanese Cabinet decided upon the Basic Policy for Conservation of the Natural Environment based on the Nature Conservation Law, indicating the necessity and importance of active promotion of EE in schools and in the country as a whole. In 1974, the Charter of Nature Conservation was established.

The Basic Environment Law established in 1993 prescribed the ‘promotion of education and learning related to the conservation of the environment’ as one of the measures for environmental conservation.

Therefore, the importance of EE has been legally positioned in Japan. The Basic Environment Plan, which was prepared in 1994 and revised in 2000, outlined participation as one of the long-term targets.

The primary purposes of Japan’s EE and learning are threefold:

- Every individual and organisation shall raise environmental awareness.

- Every individual and organisation shall understand human responsibilities and roles for the environment.
- Every individual and organisation shall participate in environmental conservation activities and develop an ability to contribute to the solution of environmental problems.

Environmental challenges such as air and water pollution and increasing garbage are among the main concerns in Japan. EE is one of the tools used to create awareness and generate action regarding these challenges among the people.

Formal Environmental Education

As in the case of Malaysia, EE is not taught as an independent subject, but is integrated with various subjects such as science and social studies. Teachers are allowed to choose topics related to EE in their teachings. Study books, references and other teaching aids are readily available. Many local NGOs or Non-Profit Organisations (NPOs) are also involved in assisting schools to conduct EE in class.

Non-Formal Environmental Education

In terms of non-formal education, the Ministry of Environment vigorously promotes EE programmes for students, consumers and enterprises. This includes preparing various learning materials. Table 3 shows some examples of EE programmes conducted by the Ministry.

Table 3: Examples of promotion of EE by the Ministry of the Environment Japan

Target Groups	Example of Activity Conducted
Elementary and Junior High School Students	Junior Eco Clubs, nature-based activities in Eco-museums
Government departments/agencies	Disseminating information through the Global Environment Information Centre
Public	Environmental Counsellors (<i>enlisting a group of individuals with extensive environmental knowledge and experience to serve society</i>)
NGOs	Symposiums, Disseminating information through the Global Environment Information Centre
Consumers and Enterprises	Eco Mark Program (<i>Eco Mark is stuck on environmentally-friendly products</i>), Environmental Activities Evaluation Programme

(Reference: Notes entitled ‘Environmental Education’ during the Conservation and Management of Terrestrial Natural Environment for Malaysia Training Course in Japan, JICA, September 2003 and Ministry of Environment Japan website: <http://www.env.go.jp/en/index.html>)

The Japan Environmental Education Forum (JEEF), an NGO consisting of people involved in EE, was established in 1992.

The purposes of JEEF are as follows:

- To research and provide opportunities for the general public, especially the younger generation, to enable them to experience the beauty, diversity and wonder of the natural environment.
- To develop and enhance the network of organisations as well as individuals for better communications in the field of EE.
- To ensure learning opportunities for experienced instructors, and the people who are interested in obtaining skills for experiential environmental/outdoor education.
- To assist in and conduct joint projects with other nations, especially developing nations in the Asia-Pacific region, to share the knowledge and experiences in this subject.
- To use all lawful means to carry out these objectives.

Lessons Learned from the Comparison

Fundamentally, the aspirations of both Malaysia and Japan in promoting EE are the same. Efforts are made to ensure EE is promoted in formal and non-formal settings, to instil awareness and to internalise the importance of environmental protection among various target groups. EE has also gained legal importance in both countries through the incorporation of EE values into their respective legislations. Government departments and agencies, the private sector, and NGOs in these countries are actively engaged in promoting EE through a range of programmes and activities.

Based on the comparative assessment of EE in both countries, the following lessons are acquired:

Formal EE

Both countries promote EE in schools through the integration of environmental values and issues across the subject board. A separate EE subject is yet to be included in the school's curriculum for both primary/elementary and secondary/junior high schools.

One of the lessons learned to improve formal EE in Malaysia is to develop more teaching materials, and , to make these items more accessible to teachers. Interesting and colourful teaching aids such as EE activity and game books, CDs, posters for each environmental issue, etc. could improve the dissemination of environmental knowledge and information to the students. Teachers were once described as the 'priority of priorities' in the UNESCO-UNEP International EE Programme as they are the key to learning, and the quality of education depends on them. Therefore, more training and programmes could be carried out for teachers to enhance their skills and knowledge, as well as to boost their

motivation to teach EE. One of the strategies to achieve this is to share resources, skills and expertise among relevant organisations.

Since both countries have adopted the approach of teaching EE across the subject board at present, perhaps it is time to consider the development of EE as a single, independent subject in schools. EE as a single subject will complement subjects such as Geography, Science, etc. and teachers may be more motivated to teach EE in this manner.

Non-formal EE

Various government departments, agencies, NGOs and the private sector promote non-formal EE in both countries. The presence of networking bodies such as JEEF and SEEN can further strengthen the efforts of various organisations involved in EE.

SEEN, a budding network, is localised within the state of Sabah, whereas JEEF operates at the international level. In keeping with one of SEEN's objectives, it should establish links with JEEF to improve its strategies in implementing EE.

Conclusion

The Challenge And The Way Forward

EE towards SD poses a challenge to the governments as well as to educational institutions to effectively create awareness and generate action for environmental protection. Barriers of jurisdiction and bureaucracy among the various ministries, departments, institutions, NGOs and the community have to be broken down for the common cause—to build a society that cares for the environment. All relevant organisations should seek to complement each other's roles in promoting EE rather than work independently. Success can only be attained through a strong commitment and the political will to change and improve accordingly.

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