

The Development of Environmental Education in Japan toward Sustainable Development

Osamu ABE

Faculty of Education, Saitama University
6-9-44, Tokiwa, Urawa, Saitama 336 JAPAN

1. OUTLINE OF THE NATIONAL ACTION PLAN FOR AGENDA21

Japan has experience in environmental conservation and has developed excellent environmental technology while conducting large-scale economic activities. Japan intends to restructure its own socio-economic system into the one which will enable sustainable development with reduced environmental load in order to make future generations inherit favorable global environmental conditions. At the same time, Japan is determined to take advantage of its own capability to make positive contributions to the furtherance of preservation of global environment through international cooperation, in a way which is commensurate with the position Japan occupies in the international community.

With this view in mind, Japan played a positive part in formulating the consensus through the United Nations Conference on Environment and Development (UNCED) process, bridging different views expressed by developed and developing countries. At the UNCED, Japan announced that it would expand its environmental Official Development Assistance substantially in the range from 900 billion yen to one trillion yen (7 to 7.7 billion US dollars) during five years period starting from FY1992.

In the follow up process of the UNCED, Japan concluded United Nations Framework

Convention on Climate Change and the Convention on Biological Diversity which it signed at the UNCED. In 1992, Japan enacted the Basic Environmental Law, which establishes a framework of basic principles of environmental conservation, including that of the global environment, and basic measures based on those principles, thereby deciding to make efforts to promote comprehensive and well-planned measures for the creation of a society which will allow sustainable development.

Building on such efforts, Japan attaches importance to the implementation of the following measures.

- (1) Making effort to construct a society which will allow sustainable development with reduced load on the global environment, and enhance public awareness in order to change people's lifestyle itself to one which is more environment-friendly.
- (2) Actively participating in, and contributing to, the creation of an effective international framework with regard to the conservation of the global environment.
- (3) Actively taking part in the international negotiations for setting up effective financial mechanisms, particularly the restructuring of Global Environmental Facility (GEF), in order to deal with the conservation of the global environment.
- (4) Making efforts to promote environment-related technological development, and contributing to the capacity building of developing countries to address environmental problems through providing appropriate and well-planned official development assistance, including the promotion of technology transfer.
- (5) Ensuring international cooperation for observation of the global environment, as well as actually carrying out these activities.
- (6) Enhancing the level of effective cooperation among major constructions of society, including the central government, local authorities, business and non-governmental organization (NGOs).

In the past, we considered domestic and global environmental problems to be separate issues though we acknowledged connections between them. In light of the inter-relationship between domestic and global environmental issues, the Basic Environment Law was established in Japan in 1993. This resulted in substantial changes to the administration of environmental

matters in Japan. Under this act, laws governing domestic pollution and nature protection are linked specifically to ways of addressing global environmental problems.

In the 1960s pollution became a major issue for Japan, as it did for many other countries. To deal with the problem, fourteen laws on the environmental were set up in 1970. The Basic Environment Law of 1993 is based on this earlier work but has been fully revised. The Law establishes three basic principles of environmental policy. These are as follows.

- (1) The blessings of the environment should be enjoyed by the present generation and succeeded to the future generation.
- (2) A sustainable society should be created where environmental loads by human activities are minimized.
- (3) Japan should contribute actively to global environmental conservation through international cooperation.

The Law defines the responsibilities of each actor in the society, i.e. the State, local governments, corporations and the people. These actors should make efforts to protect the environment through fair burden sharing, cooperating with each others. Based on these principles and responsibilities, the Law stipulates the policy instruments of Japanese environmental policy. In addition to regulatory measures traditionally taken for pollution control and nature protection, the Law prescribes the following measures, among others. (1) Environmental consideration in policy formulation; (2) Establishment of the Basic Environment Plan which describes the outline of long-term environmental policy (This Plan was established in 1994); (3) Environmental impact assesment for development projects (The Environmental Impact Assesment Law is under consideration in 1997); (4) Economic measures to encourage activities for reducing environmetal load; (5) Improvement of social infrastructure such as sewerage system, transport facilities etc; (6) Promotion of environmental activities by corporations, citizens and NGO's, environmental education, and provision of information; (7) Promotion of science and technology; (8) International cooperation for global environmental conservation.

In 1994 the Basic Environmental Plan based on the Basic Environment Law was

established. This Plan is the most important measure which the Basic Environment Law introduced. The Plan clarifies the long-term objectives of environmental policy, looking ahead to the middle of the 21st century, and specifies the measures to be taken by the government up to the early 21st century.

The Plan sets the following four long-term objectives; (1) Sound Material Cycle: in order to minimize the burdens on the environment generated at various stages of socio-economic activity, to establish a socio economic system fostering environmentally sound cycling of substances through re-examining the current system dominated by mass production, mass consumption and mass disposal; (2) Harmonious Coexistence: in order to ensure that the blessings of the environment will be enjoyed by both present and future generations, to maintain or restore the sound ecosystems and to ensure harmonious and human beings; (3) Participation; to build a society where all parties, including the central and local governments, corporations, citizens and private organizations, participate voluntarily and actively in environmental conservation activities, cooperate, and share burden fairly; (4) International Activities: to promote international environmental efforts in cooperation with the other countries that share our common global environment.

After the Basic Environment Law was established, almost prefectures and big cities have established their own the Basic Environment Bylaw and (or) the Basic Environment Plan.

2. OVERVIEW OF ENVIRONMENTAL EDUCATION RESPONSES TO THE CHALLENGE OF SUSTAINABILITY

Environmental education in Japan began as 'Pollution (KOWGAI) Education' and 'Nature Protection Education'. Pollution education was born out of growing pollution problems in various places during the period of modernization. On the other hand, nature protection education began to counter against destruction of natural surroundings by development. The cause and effect of most of these problems tend to be restricted to local district, and the blame can rightly be laid on large corporations or administrative agencies. Thus, most people seem to consider environmental problems are political or economical problems not rather than their own problem.

Influenced by the United Nations Conference on Human Environment in Stockholm in 1972, the scope of pollution and nature protection education was expanded to Environmental Education. Environmental Education seems to have already stuck in the development phase. This partly due to reluctant to pollution education, since industrial pollution are rather negated. And the concern of people in the environment has changed from a pollution to an amenity in 1970s. Also NGOs activities remain limited.

While formal education offers general subjects that prepare students for entrance examinations to higher education. Environmental education is penetrating the society through social education. NGOs have promoted environmental education in place of government and local authorities. Firstly for example, the Kiyosato Environmental Education Forum where persons concerned gather from all over Japan and exchange information on environmental education, has been held every year since 1987 in order to create environmental education system in Japan. This Forum is the first national organization in the field of environmental education. These results compiled in the book, "A Proposal for environmental Education in Japan"(1992), and a new network was organized as the Japan Environmental Education Forum in 1992 has become a non profit corporation in 1997. Secondly, the staffs and graduate of teacher-training colleges and universities played a central role in establishing the Environmental Education Society of Japan in 1990. Members of the society approximately 1,600 (1997). And many NGOs in the field of environmental education established in 1980s (especially after 1985). But these are very small organization. Of course major conservation organizations (i.e. the Wild Bird Society of Japan, the Nature Conservation Society of Japan, WWF-Japan) have promoted environmental education. The Nature Conservation Society of Japan has started a project to train interpreter since 1978. More 10,000 interpreters were born by 1996.

The Environment Agency, which has experiences in teaching nature education in national parks, has actively been concerned in environmental education, especially in the field of social education. In 1985, the Environment Agency Panel on Environmental Education affirmed the concept of environmental education and outlined its policy stance by indicating four main

goal: (1) securing a sufficient quantity of educational and environmental materials; (2) establishing centers that can serve as bases for environmental education activities; (3) creating and promoting a system to aid private-sector activities and the education of teachers; and (4) arranging and improving educational networks.

The Government set up endowments in 47 prefectures and 11 major cities in 1989 to enhance the awareness on environmental issues and to encourage activities related to environmental improvement and protection through environmental education. Many local governments established the Environmental Education Plan in 1990's (i.e. Kanagawa Prefecture, Saitama Prefecture, etc.) and environmental education centers. The social context of these activities related to environmental education is an increase of domestic waste and pollution. Local governments seek to solve these problems by changing life-style through environmental education.

In order to promote the voluntary activities of the private sector to conserve the global environment through financial and other aids, the Japan Fund for Global Environment was established in Japan Environment Corporation by funding of the national government and private donation in 1993. The Fund aids NGOs including environmental education area with money every year (600 ~700 million yen per year). Since the Earth Summit the Environment Agency has been promoting the NGOs activities including environmental education as previously stated. The Government (the Environmental Agency) has cooperated with NGOs to organize the Environmental Education Symposium since 1992. In 1996 the government established an environmental education center "the Partnership Plaza" to promote activities of citizens and NGO's, other actors related to environmental conservation.

The unique environmental education project ("the Junior Eco Club") was started in 1994 by the Environmental Agency in cooperation with local authorities. The Eco Club has a membership of 30,000 (1996). And in 1997, the Environmental Agency has started new project to establish the National Nature School. This project is to promote environmental education in natural settings for children and family.

The Ministry of Education, Science, Sports and Culture (hereinafter referred as the Ministry of Education) of the national government assumes the responsibility of educational administration at the national level. The Ministry prescribes guidelines for the curriculum, the courses, and credit requirements for kindergartens through higher education. Curricular standards for elementary and secondary schools are described in the course of study produced by the Ministry. The Ministry is also responsible for authorizing textbooks in elementary and secondary schools.

The Course of Study are revised approximately every ten years with a view to overcoming educational defects and improving the educational content and activities in response to social changes. The present Course of Study were revised in 1989 and implemented in fiscal 1990 for kindergartens, in fiscal 1992 for elementary school, in fiscal 1993 for the lower-secondary school, and in fiscal 1994 for the upper-secondary school.

Revision work is currently underway in order to improve today's Japanese education toward the 21st century. On July in 1996 and on May in 1997 the Central Council for Education, an advisory body to the Minister of Education, presented its report on "Concerning the State of Japanese Education on the Brink of the 21st Century". The basic idea on which this report was built recognized the importance of decreasing the mental pressure placed on children to foster strength for life is defined as qualities and abilities of children to identify issues for themselves and to think, judge, and act independently. In short, it is the ability to live independently and creatively as individuals. One of the Council's recommendations was that environmental education be promoted as a new education that is able to deal with the great societal changes resulting from internationalization, the spread of information media, advances to scientific technology and global environmental issues and problems. In response to the report of the Council, the Ministry established the Curriculum Council, another advisory organ of the Minister of Education, to prepare the basic guidelines for revising the Course of Study. The Central Council for Education intend to present its final report on this May. And the Curriculum Council intend to present the New Course of Study on this July.

Environmental Education has never been recognized as a discrete subject in Japanese school education. Subject matter related to the environment has traditionally been included in the curricula for such subjects as Social Studies, Science, and Health and Physical Education, but it is not until the onslaught of pollution problem in the 1960's that serious consideration was given to the issue. In the case of lower secondary school, in the 1969 revised Course of Study, pollution and health were included in the syllabus for Health and Physical Education, and in the 1977 revised Course of Study, 'protection of the environment and preservation' were included in Social Studies, 'human beings and nature' in Science, and 'health and the environment' in Health and Physical Education. As for upper secondary schools, the 1978 revised Course of Study saw the inclusion of 'mankind and the environment' in Contemporary Society, of 'human being and nature' in Science I, and "health and the environment" in Health. In this way, the overall proportion of course content concerned with environmental education has increased. In terms of actual practice, environmental education has some degree been carried out enthusiastically in a spirit of research and inquiry, but for the most part, it has been implemented as an isolated part of Social Studies, Science or Health and Physical Education.

With the 1989 revised courses of Study for elementary, lower secondary and upper secondary school, emphasis was placed on content related to environmental education in a large number of subjects as well as in Moral Education and Special Activities. In this context, the establishment of Life Environmental Studies as a new subject in the early years of elementary school was to be given special mention. This subject is intended to "develop interest in the relationship between oneself and one's immediate environment, and also develop the habits and attitudes conducive to an appropriate life style" through hands-on activities and experiences. Moreover, environmental education is not limited to ensuring understanding of the content of relevant parts of the syllabus. Importance is also attached to fostering abilities needed to solve environmental problems and, in the current revision, emphasis is placed on fostering abilities and attitudes appropriate in responding positively to social change and on developing experience-based learning and problem-solving abilities.

The present Course of Study emphasized the need to develop children into people who

will respect nature and take environmentally responsible behavior. The Ministry of Education published the handbooks of environmental education for teachers to promote environmental education in school education. The handbooks consist of three books, elementary school version in 1992, secondary school version in 1991, case study and examples from elementary to secondary version in 1993. These handbooks define environmental education as "developing a citizenry that is aware of and knowledgeable about the environment and its problems, that has skills, thinking faculties and judgment with which the environment can be appropriately conserved on the basis of an comprehensive understanding of the relationships between human activities and the environment, and that has attitude of being committed to creating a better environment and of adopting responsible patterns of behavior toward the environment". The handbooks are summarized as follows:

- (1) Consideration for the stage of development.
- (2) Abilities and attitudes to be fostered through the teaching of environmental education.
- (3) Points to note in teaching.
 - (a) A whole-school approach
 - (b) Teaching attitude
 - (c) The design of teaching methods
 - (d) The development of teaching materials
 - (e) Guidelines for environmental education in individual subjects

The Ministry of Education promote many environmental educational projects except the publication of a handbook for environmental education as follows;

(1) Symposium and Research Council on Environmental Education:

It has been held since 1991 for the purpose of making environmental education more widespread. to this end, people concerned gather from all over the country, make presentations on case studies in schools and exchange views through reaesrc meeting.

(2) Model municipalities promoting environmental education:

Some municipalities are appointed as a project which promotes environmental education in collaboration with school, parents and community. Respecting the uniqueness and culture of the local communities, designated municipalities set up committees coprised of representatives from

schools, PTA, social education facilities, business and academic circles and administrative bodies, enforce measures on the basis of the policies and proposals discussed by the committee and encourage case studies in the experimental schools.

(3) Outdoor school:

In helping students experience activities in nature, receive opportunities to live in it, and apprehend the importance of preserving it, the Ministry has promoted residential programs in which students at urban schools remain overnight in natural settings.

(4) In-service training for teachers in charge of environmental issues:

Nature-related experiences as well as environmental education should be regarded as a significant aspect of schooling. As the majority of the teaching staff, however, have little personal experience with nature, they may feel difficulties in teaching effectively. For this purpose, practical training has been provided for teachers in charge of environmental education since 1993.

Environmental Education in Japan is flourishing in recent years. Maybe promotion of environmental education in schools is strengthened under the influence of the Report of the Central Council for Education. And environmental education in social education has increasingly developed owing to partnership between several actors.