

Academic Study of ZEF in 2002 Fiscal Year
The method on how to realize sustainable recycle-oriented society at site
(Abstract)

1 Outline

In order to plan workshops towards the sustainable society in regions, ZEF had talks with person of local governments and industrial sector to find their interest and asked their opinion on subjects to be studied in workshops. The majority of responses came from local governments (ratio of numbers of received responses : 77%) and they showed the interest in creating sustainable recycle-oriented society at site. Considering the result of this survey, ZEF decided to implement the study on “ the method on how to realize sustainable recycle-oriented society at site ” and organized five workshops in 2002 FY.

2 Workshops

Five workshops were carried out;

2-1. First workshop : 27 September 2003

2-1-1. Lecture

Speakers

Mr. Someno MOE, Assistant Manager of Recycling Promotion Division
“ National Policy toward Recycling-oriented Society ”

Mr. Kunitomo METI, Manager of Environmentally Harmonized Industry Promotion
Division

“ Promotion Policy of Environmental Business to Create Sustainable Recycling
Society ”

2-1-2. Panel Discussion : Toward the Sustainable Recycling-oriented Society

Organizer : Dr. Sakamoto ; UNU/ZEF

Panelists : Mr. Someno ; MOE, Assistant Manager of Recycling Promotion Division
Mr. Koyari ; METI, Assistant Manager of Environment Policy Division
Mr. Funayama ; Iwate Prefecture, Assistant Manger of Recycling Division
Mr. Yamada ; Tokushima Prefecture, Assistant Manager of Recycling Division
Mr. Akamatsu ; Fuji Electric Co.

2-2. Second workshop : 18 October 2003 (at Tachikawa Town, Yamagata Prefecture)

2-2-1. Inspection of sites : Compost production works and wind power generation plant

2-2-2. Lecture

Speakers Mr. Seino ; Tachikwa Town, Mayor

“ How to Create Environmentally Friendly Town in Rural Site ”

Dr. Yamaji ; ZEF, Chairman

“ Zero Emissions and Promotion of Eco-industry and Eco-tourism ”

2-2-3. Panel discussion

Organizer : Dr. Sakamoto ; UNU/ZEF

Panelists : Mr. Konta ; Tachikawa Town, General Director
Mr. Abe ; Tachikawa Town , Assistant Manager
Others

2-3. Third workshop : 14 and 15 November 2003 (at Kitakyushu City)

2-3-1. Inspection of Kitakyushu Eco-town

2-3-2. Lecture

Speakers Mr. Kakisako ; Kitakyushu City, Director
“ Kitakyushu Eco-town and Promotion of Eco-business ”
Dr. Sakamoto ; UNU/ZEF
“ UNU ’ s Zero Emissions - from Launching to Future Vision ”

2-3-3. Panel discussion

Organizer : Mr. Sakka ; Kitakyushu City, Assistant Manager
Panelists : Mr. Sano ; Ministry of Environment, Manager
Mr. Ito ; Aichi Prefecture, Senior Staff
Mr. Hashimoto ; Mie Prefecture, Senior Staff
Mr. Kishimoto ; NTT Research Inst., Project Manager
Mr. Noda ; NPO/Mottainai Soken, General Producer

2-4. Fourth workshop : 2 December 2002

2-4-1. Lecture

Speakers Prof. Takeuchi ; Tokyo University/Graduate School
“ Environmentally Harmonized Town Creation in Global Environment
Conservation Days ”
Mr. Kumano ; Amita Co., President

2-4-2. Panel discussion

Organizer Dr. Sakamoto ; UNU/ZEF
Panelists Prof. Takeuchi ; Tokyo University/Graduate School
Mr. Sagisaka ; MOE, Director
Mr. Koike ; Mishima City, Manager of Environment Policy Office
Mr. Kumano ; Amita Co., President
Mr. Okada ; NPO/Global Sports Alliance, Director

2-5. Fifth workshop : 10 March 2003

2-5-1. Lecture

Speaker Prof. Ueta ; Kyoto University/Graduate School
“ Sustainability and Recycle-oriented Society ”

Panel discussion

Organizer Prof. Mituhashi ; Chiba University of Commerce (ZEF)
Panelists Prof. Ueta ; Kyoto University/Graduate School
Prof. Kimata ; Tokyo Gakugei University
Mr. Sagisaka ; Ministry of Environment, Director of Environmental
Policy Division
Mr. Yamazaki ; Itabashi Ward, Director of Eco-Police Centre
Mr. Shioda ; Obayashi Construction Co. Manager of Global Environment
Office

3. Summary of presentations and panel discussions

Presentations and panel discussions in five workshops including two sites inspection are epitomized in followings.

3-1. Government ’ s role and work

The Government has made a law system in order to construct the recycle-oriented society and individual laws for promoting recycling of major used goods in the industrial sector and developing the use of recycled products in the society. Under such a law scheme, METI puts the focus in developing the environmental industry and MOE facilitates the dissemination of environmental education in the society and supports local governments in creating sustainable regions.

3-2. Local governments play roles at site

Local governments are implementing various activities such as making local laws and restrictions under the national law system, getting consensus of people towards the sustainable society, implementing environmental education and dissemination, and supporting practical environmental activities in citizens and business sector.

NGOs and NPOs are also playing important roles for bridging gap of thinking and behavior toward the sustainability in local authorities, citizens and business sector.

3-3. Academia(three professors) gave valuable advice on construction the sustainable society

3-3-1. Non uniformity of societies and sites

Societies and sites are not uniform, but have different nature, history, culture and lifestyle. Therefore, each town and city must create their sustainable society on regional characters such as nature, history, cultural features and industrial strength.

3-3-2.The socio-economic study on the sustainable society

The socio-economic study on the sustainability started very recently and has not been developed so far. So, at present, it is impossible to tell precisely the socio-economic system in such a sustainable society as addressed in Agenda 21. This issue is one of the most basic and keen item in academia and should be studied to clarify the possibility and feature of the sustainable society from the view point of the science of economics.

3-3-3. Environmental education (EE) in Japan

EE in Japan are been promoted actively not only in schools, but also in the society. Professors in academic institutions carry out basic study on the system and practice of EE, implement actual dissemination and promote international cooperation activities. As an example on international collaboration, Tokyo Gakugei University holds UNESCO/Japan Seminar on Environmental Education in Asia-Pacific Region under the support of UNESCO/Japan and Ministry of Education and exchange information on EE in this region and learn splendid ways and performances on EE in other countries. Through these wide-ranged activities of scholars and experts involved in EE, following common understanding has been created in many countries.

:1. EE is one of the most important actions toward the sustainable society addressed in Agenda 21,

:2. the spirit of EE is universal in all countries, but the practice of EE varies and changes according to local and regional conditions such as nature, history, culture, economic development. Local communities must decide the best way for EE at site.

:3. It is very important that Governments evaluate the significance of EE, talk with various organizations and persons working for EE, decide national policy for EE promotion and facilitate to proceed practical educational works and ways.

4 Inspection of two sites (Tachikawa Town and Kitakyushu City) and Lessons for creating the sustainable recycle-oriented society

In these workshops, we have studied 8 local governments and learned many lessons for creating the sustainable society. I like to select two local communities (one is a rural site and the other is a highly industrialized city) as typical examples and explain their policies and practices in short.

4-1. Tachikawa Town in Yamagata Prefecture

This small town (population : about 7,000 person and forest covers 81% of land area) has been working how to reactivate the town. Actual projects are the wind power generation and the organic rice cultivation.

4-1-1.Wind Power Generation

In this area, a strong wind often blows due to local geographical feature and causes damage on agricultural industry like paddy, vegetable, fruit cultivation etc. Under these natural severe condition, the town thought of using the strong wind ; constructing wind

mill station, generating electric power, selling the generated power and attracting person to see power generation plant (a kind of eco-tourism). The first experiment started in 1980 under collaboration with a public organization using small experimental equipments(1KW and 5KW). In a next stage, the result of his experiment was succeeded to the commercial project of constructing three 100KW mills in 1992 under the financial support of Government. The project has been developed to install 10 wind mills system with a total capacity 5,000KW. Generated power by wind mills gets to 42.5% of electric demand in the town and will become equivalent to 12.7% reduction of CO2 exhaust in 2005, of which value is over the national CO2 reduction target : 6% by a great extent.

4-1-2. Organic rice cultivation by utilizing compost from waste and garbage

Main industries of Tachikawa Town are rice and wood production and cattle breeding. The town planned to produce compost by utilizing household raw garbage, rice crust and cattle excretion. Hitherto, these wastes were abandoned in the field and forest and caused environmental problem. The compost plant was constructed in 1988 and has been operated very well since then. Produced compost is used as organic fertilizer in paddy field at site and cultivated rice is given the brand of organic rice and sold commercially in the market with extra price. Tachikawa Town has succeeded to boost local key industry - rice production and improve the environment.

4-2. Kitakyushu City

Kitakyushu City made Eco-Town plan, applied this to the Government and got the first Eco-Town approval by METI and MOE in 1997. The city has been promoting many projects in cooperation with industrial sector, academia and citizens and made splendid business performances.

However, it must be stated that Kitakyushu City did not make the Eco-town programme after the government announced the plan at site and asked local governments to apply this national project. This city had hard and severe experience to overcome the pollution and environment problems and recover the blue sky and clean sea for a long time. As well known, the highly industrial development in Kitakyushu came to cause various environmental problems since late 1950s. In 1960s and early 1970s, it was reported that the blue sky disappeared, the clean sea (Dokai Bay) was lost and many children suffered from respiratory decease due to polluted air. Facing with these environmental difficulties, the city authority decided the policy to solve environmental problems in collaboration with all sectors of the city from 1970s. Through integrated effort by all stakeholders in the city, the pollution and environmental issues were solved in late 1980s and early 1990s, the nature and environment were revived, and the blue sky and clean sea appeared again in Kitakyushu. At Earth Summit at Rio de Janeiro in 1992, Kitakyushu Local Government was highly commended by UN for their performance to recover the nature and alleviate the pollution.

Local Authority continues the work to improve the environment much cleaner, develop the city industrially further and create the new local governance system. When the Government announced Eco Town Plan in 1997, it can be said that Kita Kyushu already prepared the detail of programme through long term works to create the environmentally sound and industrially advanced town for applying Eco-Town Plan to the Government. Kitakyushu ' s policy and practice to create environmentally sound and industrially developed city should be appreciated very much.

5 How local governments create the sustainable recycle-oriented society

We have learned many lessons through these academic study and workshop for creating the sustainable recycle-oriented society, in other word, the environmentally sound and industrially advanced town. Although all sectors in community must cooperate together

to realize such society and carry out their proper works, the most important is that local authorities play basic and leading role. Followings are common and basic ways for the realization of environmentally sustainable and industrially developed community.

- 5-1 To create the future vision of the community, understanding the international socio-economic trend and the governmental vision.
- 5-2 To make the policy and practical site-activation plan in which the environmental improvement and industrial development harmonize.
- 5-3 To utilize local strength in natural, cultural, technological and industrial characters in making policy, plan and practice programme.
- 5-4 To keep the principle of information transparency and publicity in deciding policy and making practice plan. This facilitates to confirm public consensus and responsibility sharing system in all partners.
- 5-5 To promote the environmental education not only inschools, but also inthe society. The awareness on the environment is raised by EE and plays the key role for creating sustainable society in all regions and sites.