Eco-Town Projects/ Environmental Industries in Progress

Environment-Conscious Type of Town-Building Case Introduction

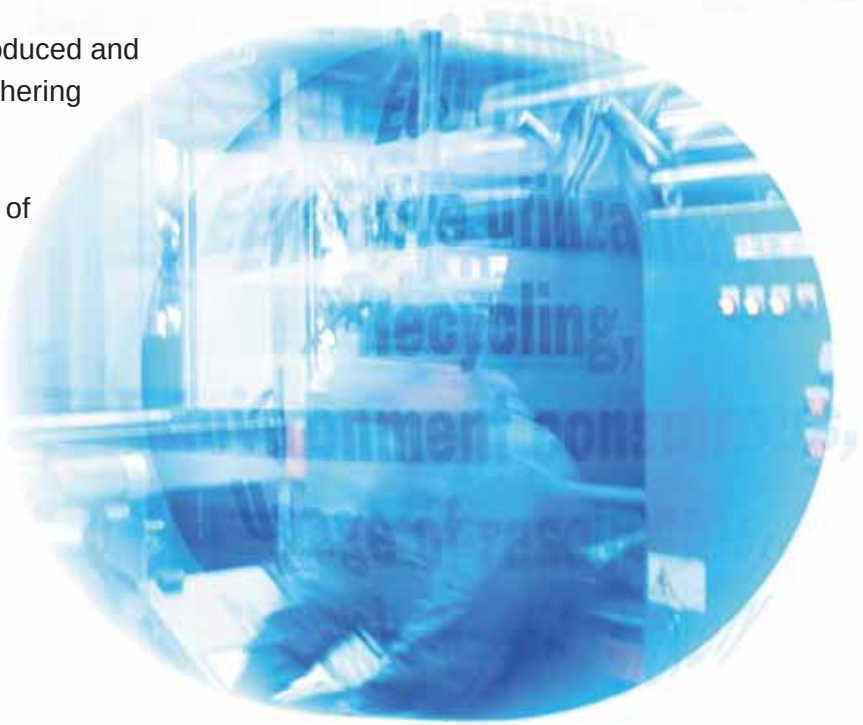
Models of Eco-Town Municipalities/Business Firms

Editorial Supervisor:
Tsuyoshi FUJITA (Professor of Toyo University)

Covering advanced 26 Eco-Town areas

To business firms, researchers and municipality-concerned parties who have environmental industry in mind!

- The latest business cases are introduced and based on the latest information gathering activities in 2006.
- Activities that suggest new phases of Eco-Town projects are excavated.
- The content is made up of easy-to-read, understandable documents and illustrations.



The Ministry of Economy, Trade and Industry

Contents

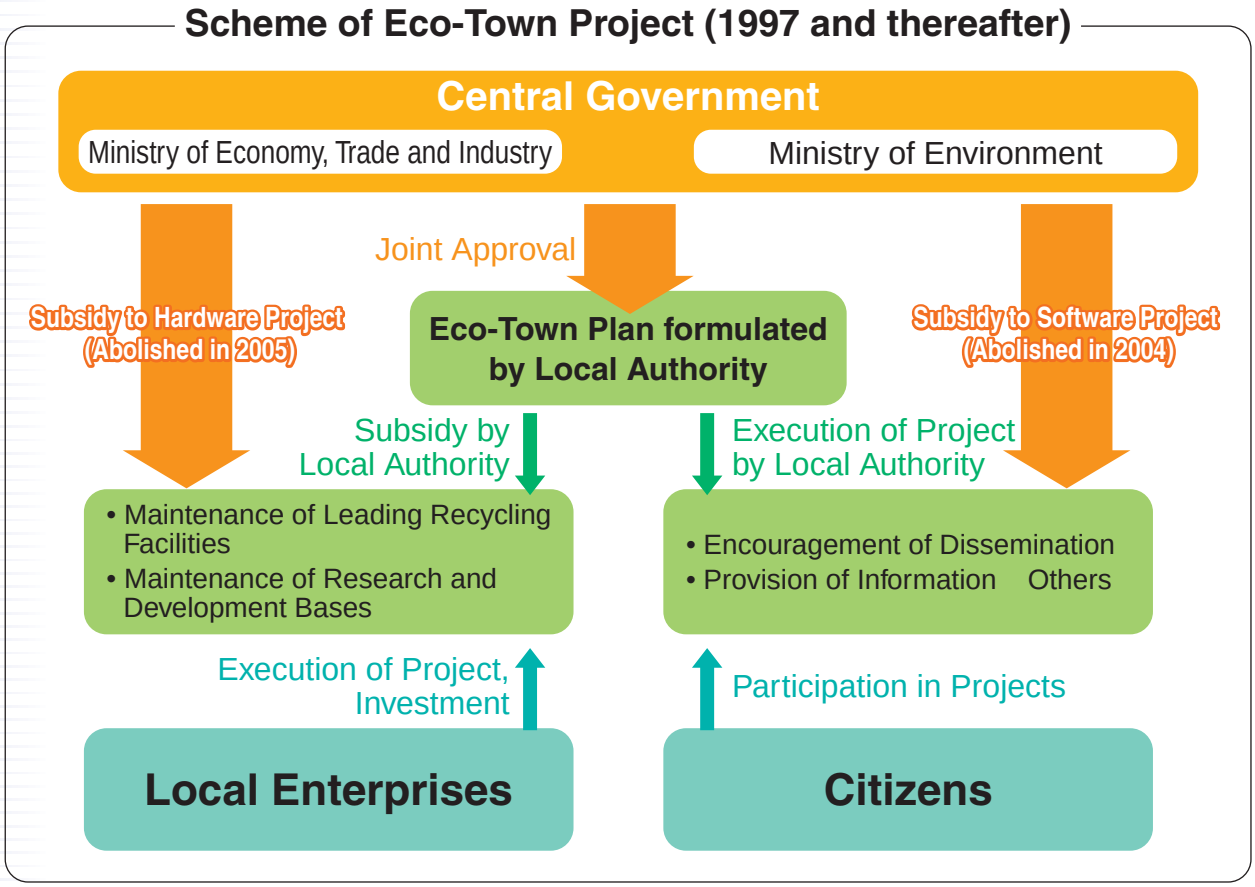
Eco-Town Project: Environment-Conscious Town Building

Purpose and Profile of Eco-Town Project

The Ministry of Economy, Trade and Industry and the Ministry of Environment are presently promoting an Eco-Town project, aiming for the construction of a resources-recycling economic society through the development of industrial industries by utilizing local industrial accumulations, the prevention, and the promotion of recycling of wastes based on the uniqueness of local districts. The Eco-Town projects are operated by local authorities to support advanced environment-conscious town building through cooperation with local residents and industries.

For the Eco-Town project, local authorities will create the Eco-Town Plans. When creativity and a pioneer spirit receive a reasonable level of recognition regarding the basic concept and specific project of the plan, and if the plan could be a good model for other local authorities, the Ministry of Economy, Trade and Industry and the Ministry of Environment will jointly approve the plan as an Eco-Town Plan, and the two ministries will provide financial support to leading recycling facility maintenance projects, contributing to the formation of a recycling society, which society will be conducted by local authorities and private organizations.

In the past, 26 approved Eco-Town areas were born throughout the nation, wherein the local authorities and business firms are currently working hard to achieve zero emission. In order to form a future recycling economic society, as well as developing Eco-Town Projects, it is mandatory to share experiences, know-how, and problems in building environment-conscious towns that have been cultivated in each Eco-Town area and to hold discussions and work together toward new development of Eco-Town projects.



Approved Eco-Town Areas

The Ministry of Economy, Trade and Industry and the Ministry of Environment approved Eco-Town Plans for 26 areas as of the end of January 2006, and they provided financial support to 62 facilities located within the appropriate areas.

The Case Introduction reports the present situation of Eco-Town projects based on information gathering from local authorities and major facilities (business firms) in the 26 areas. Referencing materials describing profiles of Eco-Town Plans of the local authorities are attached at the end of the book.

Problems Associated with Eco-Town Projects and Roles of Relevant Parties

Approaches and problems of the present Eco-Town projects include adoption of the viewpoint of prevention of global warming, making the best use of regional resources to achieve rational utilization, and the formation of adequate circulation recycling covering wide areas, including widening demand or sales channels of reproduced articles, supports, and encouragement of dissemination in the aspect of software in the examination on global recycling resources. In the future, it will be necessary for respective persons and entities, such as the central government, local authorities, enterprises, local residents, NPOs, and universities, to play adequate roles and to dissolve problems and promote cooperation among them.

[Major Problems Associated with Eco-Town Projects]

(1) Measures for preventing global warming in the region

Environmental town-building plans that adopt viewpoints for the prevention of global warming

Promotion of 3Rs that consider CO_2 emissions

(2) Streamlining of resource recycling in the region

Establishment of goals and evaluation thereof concerning making the best use of regional resources and resource recycling

Organic cooperation among related businesses and organizations

Necessity of leaders and coordinators

Adequate circulation recycling that is based on economic rationality

(3) Formation of adequate circulation recycling, including wide-area circulation

Effectiveness of the wide-area circulation

Examination and approaches to global circulating resources

[Roles of Relevant Parties]

<Local Authorities>

(1) Leading organizations for promoting environmental town-building

(2) Policy mix and promotion of cooperation among administrative departments

(3) Approaches for higher efficiency in resource recycling in the region

(4) Roles for achieving wide-area recycling

(5) Promotion of environmental education

<Local Residents/NPOs>

(1) Involvement in environmental town-building projects

(2) Positive utilization of recycled goods

(3) Cooperation for waste segregation

<Enterprises>

(1) Roles as the leading organization for implementing projects

(2) Roles for achieving promotion of prevention

(3) Approaches for higher efficiency in resource recycling in the region

(4) Roles for achieving wide-area recycling

<Educational/Research Institutes including Universities>

(1) Research and development concerning recycling technologies

(2) Development of evaluation methods

(3) Development of human resources utilizing people who can play the part of leaders or coordinators

Verification of Effects in Eco-Town Projects

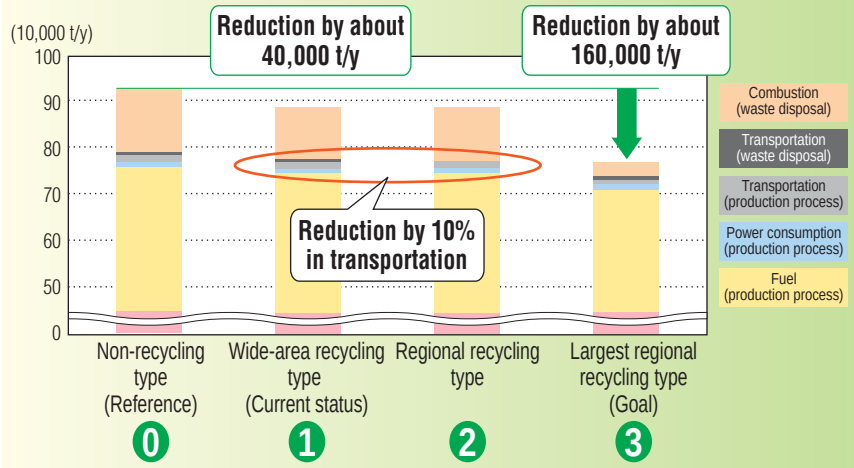
(Examples of Kawasaki City and Kita-Kyushu City)

[Example of effect estimation of recycling facilities in Eco Town (Estimation at Kawasaki Eco Town)]

Quantitative evaluation and model estimation of resource recycling effect

0 No recycling industry (Non-recycling type)	Environmental loads under a conventional-type structure, including simple incineration and landfill
1 Recycling evaluation under present status	Improvement in environment for accepting industrial waste
2 Expansion of cooperation among industries	Expansion of acceptance of recycling resources at coastal areas
3 Expansion of resource recycling under cooperation among regions	Expansion of acceptance of waste of consumable goods

CO_2 Reduction Effect by Turning Regional Waste into Cement Resources (Estimation Example)



Database of generated waste in Kawasaki City

Target value of cement resources

- Distribution effect through regional utilization of clay-based resources (polluted mud, burnt residue, etc.)
- Use of fuel-based resources as coal alternatives (plastics, wood chips, etc.)

Potential CO_2 reduction in 100,000-ton order

Estimation Example: The Center for Regional Industrial Symbiosis Research, Toyo University

[Effects and Progress of Kita-Kyushu Eco-Town Project]

Effects of Project

(As of the end of March 2006)

- Investment Amount: Approx. 57.8 billion yen (Municipality: 6 billion yen; Government, etc.: 10.7 billion yen; Private Sector: 41.1 billion yen)
- Persons Involved: Approx. 1,200 (Including part-timers)
- Visitors: 580,000 persons in total (1998 to March 2006)

Progress Status

(As of the end of March 2007)

- Research Experiments: 17 (Excluding 24 already finished research projects)
- Facilities Put into Business Operation: 25
- PCB Treatment Facility: 1

[Economic Effect Brought about by Kita-Kyushu Eco-Town Project]

- Period: 1998 to 2003 (6 years of operation)
- Facilities: 45 (Including facilities for experimental studies, recycling, etc.)

Direct effect concerning construction investment

Induced amount for production (direct investment) 34.2 billion yen

Effect concerning construction investment

Effect for inducing production 64.1 billion yen
Effect for inducing added value 33.5 billion yen
Effect for creating employment 4,266 persons

Direct effect concerning operations

Induced amount for production (direct investment) 26.1 billion yen

Operational effects

Effect for inducing production 45.2 billion yen
Effect for inducing added value 22.6 billion yen
Effect for creating employment 2,204 persons

Total Economic Ripple Effect and Evaluation

Effect for inducing production 109.3 billion yen
Effect for inducing added value 56.1 billion yen
Effect for creating employment 6,470 persons

- Contribute to the promotion of new industries in the city
- Contribute to the creation of employment in the region
- Utilize funds from private sectors, the central government, etc., to a maximum extent
- Additional effects brought about by visitors

Approx. 73.65 million yen/year
(Including expenses for transportation, meals, lodging, etc.)

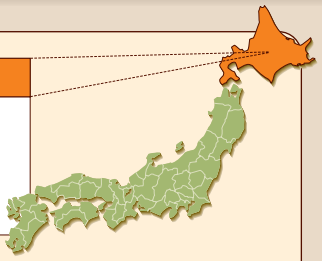
Period: 2002 (January 1 through December 31, 2002)
Visitors: 93,270 persons in total

Eco-Town Project Case Introductions

Eco-Land Hokkaido 21 Plan
(Approved in 2000)

Trying to collect and effectively utilize waste for contribution to the region and to Industries beyond the barrier of distance

Municipality		Target Region
Hokkaido Prefecture Department of Environment and Lifestyle Recycling Society Promotion Division, Bureau of Environmental Affairs	**Nishi 6-chome, Kita 3-jo, Chuo-ku, Sapporo City, Hokkaido 060-8588 Phone: 81-11-231-4111 URL: http://www.pref.hokkaido.lg.jp/**	All areas throughout Hokkaido



An important action plan to strengthen the promotion of a recyclable society with the regional viewpoint of Zero Emission, wherein, to create the comfortable environment named "My Land Hokkaido," in which people are assured of the coexistence of nature and people, as well as spiritual richness, such as relief and peace, wastes are grasped as useful resources, and improvement of recycling facilities is executed by shifting conventional methods of landfill or incineration of waste to recycling treatment by utilizing technologies and facilities of enterprises.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

Hokkaido is developing the Eco-Town Project to promote zero emission systems across the entire prefecture under the project title "Eco-Land Hokkaido 21 Plan." Before introducing the Eco-Town Project, emissions of general waste per day exceeded the national average, the percentage of landfill disposal was high, and the recycling rate was almost half the national average, far below other areas. Under such circumstances and before enforcement of the respective Recycling Laws starting around 1998, Hokkaido deemed it urgent to establish separate collection systems and effective collection routes. As a result, the prefecture created the Eco-Town plans pursuant to Recycling Laws and started development of related facilities. To start the plan, officials in Hokkaido projected the recycling of paper containers and packages as well as the recycling of home electric appliances.

Waste collection in Hokkaido has characteristics that are peculiar to the area. One characteristic is an issue of distance in Hokkaido. For example, the prefectural government of Sapporo is located about 400 km from Nemuro. The distance is equivalent to the distance from Tokyo to Nagoya. When they aim for waste collection throughout Hokkaido, logistics is a significant problem. The plan calls for a system that divides 14 sub-prefectural offices into 6 regional living and economic zones to achieve efficient recycling by concentrating wastes in larger lots as much as possible; note that in the Hokkaido Eco System for recycling of home electric appliances, devices are made concerning logistics, which will be described later. In addition, the number of domestic livestock is so large that livestock excretion is the largest in waste volume. Marumasu Masuda Honten Co., Ltd., which is involved in recycling paper containers and packages, developed a business to divert used paper discharged from paper manufacturing industries, many of which operate in Hokkaido, to spreading materials for domestic livestock, thus contributing to the region.

Voice of the Municipality

"In Hokkaido, we have longer region-to-region distances, as opposed to other Eco-Town areas. Even if waste can be concentrated in Hokkaido's middle zone covering a distance of approximately 100 km, we see difficult aspects in resource matching and logistics for the distance of 400 km. Regional recycling is going to be a problem. On the other hand, a tax system (Recyclable Resources Utilization Promotion Tax) concerning industrial waste for landfilling is being implemented this year. By utilizing tax revenues, we are working to restrict the quantity of waste for land filling by restricting the generation of industrial waste and promoting recycling. As part of our activities, we started an information Web site concerning resource matching. There is no restrictions on the registration of members and browsing of the site, and approximately 100 enterprises and members are expected to be registered at present."

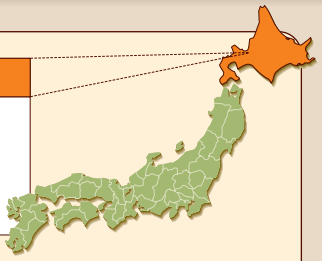
Common Name: Jun-Kan Yume Net
http://jun-kan.jp
(Operated by the Secretariat Office for Promotion of Support for Recyclable Resource/Recyclable Product Information Network, as entrusted by the Hokkaido Prefectural Government)

Eco-Town Project Case Introductions

Eco-Town Sapporo Plan
(Approved in 1998)

On the stage of Sapporo Recycling Complex, Sapporo City -the largest city in Hokkaido- develops regional treatment and the recycling of waste that they now face.

Municipality		Target Region
Sapporo City City Planning Department, Environment Division, Environment Bureau	**Nishi 2-chome, Kita 1-jo, Chuo-ku, Sapporo City, Hokkaido 060-8611** **Phone: 81-11-211-2912** **URL: http://www.city.sapporo.jp/seiso/**	Sapporo Recycling Complex



The Eco-Town Sapporo Plan was formulated for the purpose of achieving Zero Emissions and promoting an active economy by forming a recyclable society and introducing environmental industries. The plan comprises software projects that promote positive understanding and participation by citizens for forming a recyclable society and hardware projects that promote the formation of a recyclable society from the viewpoint of infrastracture subsidies.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

The activities of Sapporo City are attracting attention throughout Hokkaido since the city is the center of politics, economy, and culture in Hokkaido. Being different from other areas in Hokkaido, Sapporo City is a typical consumption city having an industrial structure that is specialized in tertiary industries, and in the central Hokkaido area, including peripheral cities, towns, and villages, an urban area with a population of 2.3 million people that accounts for a little over 40% of the total population in Hokkaido. Before the Eco-Town Plan was approved, general waste exceeding 1 million tons and industrial waste of 3 million tons were discharged in Sapporo City.

The Eco-Town Project is based in the Sapporo Recycling Complex. A decision on land creation for the complex was reached in and around 1991, and construction was completed in 1996. The cue for establishing the complex was a judgment that improvements in recycling facilities are mandatory through public intervention due to the adverse sentiments of residents in peripheral municipalities and also due to various restrictions concerning problems of inadequate treatment of construction waste. An important subject of the complex is recycling and treatment of waste within the area. The infrastructure development concentrating recycling-related enterprises on such a scale to work on resource recycling throughout the urban area was the first case in Japan, and the industrial complex became the base of the Eco-Town platform.

Voice of the Municipality

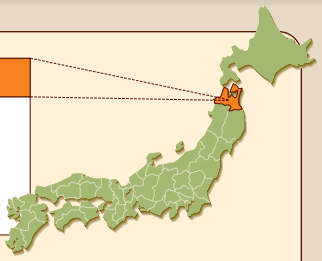
"As a city government, we thought that we should consider treatment of not only domestic waste, but also of business and industrial waste within the city area. Our conclusion was the provision of land for the Recycling Complex. We secured space for the resource center in the complex, and the number of visitors is on an up-trend. Execution and disclosure of waste recycling within the city area contributes to the dissemination and awareness of adequate discharging since citizens can see the final result of recycling. The Eco-Town Plan took root in the improvement of facilities in compliance with the Containers and Packaging Recycling Law. The role of the municipality includes collection, separation, and storage. We thought, however, that we should think of further stages up to the re-commercialization of waste, and we launched our recycling-related business. It should be noted, however, that intra-regional recycling is hard to implement under the current uniform bidding system throughout the nation by designated corporations, and business operators face serious business management issues. We hope the system will be reviewed so that intra-regional recycling can be further promoted."

Eco-Town Project Case Introductions

Aomori Eco-Town Plan
(Approved in 2002)

Implementation of clustering of private network leading type, which started with cooperation among local enterprises

Municipality		Target Region
Aomori Prefecture Energy Development Promotion Department, Energy Policy Bureau	**1-1-1 Nagashima, Aomori City, Aomori Prefecture 030-8570** **Phone: 81-17-734-9378** **URL: http://www.pref.aomori.lg.jp/**	All areas throughout Aomori



This is a plan to preserve the environment around people locally and on a global scale, improve the quality of living of prefectural residents, and realize relieved and safe living with the cooperation of prefectural residents and industries by maintaining rich nature and reproducing vanishing nature through the build-up of systems for producing products that contribute to natural reduction by achieving recycling of recyclable resources in the region.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

Although the project is titled, Aomori Eco-Town Plan, which covers all areas of the prefecture, the ongoing main stage is Hachinohe City. In the city, basic material-type industries, such as iron and steel and non-ferrous metal industries, were aggregated when the city received regional designation under the New Industrial City Construction Promotion Law in 1964; note that industrial promotion under the law was abolished in 1986 after the Sixth Plan. The region faced a rush in downsizing of surplus manpower by enterprises as a result of business stagnation that started in and around 1998. They started to voluntarily examine and demonstrate recycling businesses by utilizing existing facilities and technologies as part of their new industrial activities through cooperation among enterprises located in coastal areas. Then, the Aomori Prefectural Government and Hachinohe City Government decided to cooperate in such activities, which led to Eco-Town projects and special zones for structural reform of the environment and energy industry. Although the Eco-Town Plan has many characteristics of an industrial policy, its significant characteristic is that the Plan started with the independent efforts of enterprises in coastal areas, not with administrative initiatives. In meetings of such enterprises that do not have any capital ties to each other, they examined projects in which they could cooperate by utilizing a broad site and operating large plants. Finally, they focused their attention on waste treatment. Such activities led to the current activities of the Society for the Study of Eco-Town Initiatives, which is further accelerating zero-emission initiatives in the region.

Voice of the Municipality

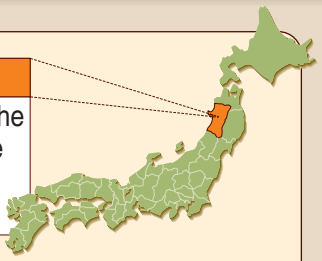
“Approaches for Eco-Town projects were cultivated in discussions among business operators in coastal areas, and the city government backed them up later in the direction they intended. Concerning approaches for recycling projects in Hachinohe City, we have a history as a study-society beyond departmental barriers, under the name 3E Project around 2002 and 2003, intended for such fields as environment, energy, and environmental economics, and we had the atmosphere of easy information exchange in the city government. Thus, following in the wake of such an atmosphere, we have been promoting Eco-Town projects hand-in-hand with prefectural and city governments. So far, we have been promoting approaches to Eco-Town projects from the viewpoint of industries, not from civic action. On the other hand, since the significance of the project may be weakened, approaches are done by the administrative government and enterprises as infrastructure only, and we plan to promote PR and dissemination to citizens as the next step in gaining the understanding of citizens, thus developing the measures and policies hand-in-hand with citizens. We learned from questionnaires that citizens were aware and had the opinion that it would be much more profitable if we entrusted waste treatment to conventional waste disposers who offer cheaper fees. Many of the citizens, however, are positive in their opinions regarding recycling. In addition, we assist in finding matching partners so that small and medium enterprises located in the city can take actions in the recycling business within the region. We want to find community-based projects that are closer to citizens.”

Eco-Town Project Case Introductions

North Akita's Eco-Town Project
(Approved in 1999)

Leading to cooperation for Zero Emissions through the creation of recycling businesses by utilizing the infrastructure related to local industries (mining and refining)

Municipality		Target Region
Akita Prefecture Natural Resources and Energy Division, Department of Industry, Economy and Labor	**4-4-1 Sanno, Akita City, Akita Prefecture 010-8570** **Phone: 81-18-860-2283** **URL: http://www.pref.akita.jp/**	4 cities, 4 towns, and 1 village in the northern part of Akita Prefecture (Kazuno, Odate, Kita-Akita, Noshiro, Yamamoto area)



This is a project to realize the "formation of an environment-conscious society coexisting with rich nature," which aims for the achievement of Zero Emissions while achieving coexistence with nature through cooperation among local industries, for example, by promoting the recycling of home electric appliances through the utilization of mine-related technologies and infrastructures and developing new materials by combining wastes and natural resources.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

The natural northern areas of Akita Prefecture, represented by Shirakami Sanchi, a registered Natural Heritage Site, and Towada-Hachimantai National Park, have been developing as the nation's most popular mining region. The Northern Akita Eco-Town Project was planned to aim for a new resource recycling system that will be achieved through cooperation among local industries in nine municipalities located in the northern part of the prefecture, first by implementing metal recycling projects utilizing mine- and refinery-related technologies and infrastructures and by effectively utilizing waste discharged by the industries of forestry, agriculture, construction, and wood-product manufacturing.

Infrastracture subsidies that have been promoted include recycling of home electric appliances through utilization of mine-related technologies and infrastructures, projects for forming recycling and refining bases, new construction materials manufacturing projects utilizing waste wood and waste plastics discharged in the forestry industry, secondary products manufacturing projects using coal ash and waste plastics that use coal ash (fly ash), and waste plastics discharged from coal thermal power plants.

For approaches that make the most of local characteristics, they formulated the Akita Prefecture New Energy Vision and promote, for example, introduction of wind-power generation, which has the highest potential throughout the nation.

As described here, they are positively working to realize the "formation of an environment-conscious society coexisting with rich nature" as they state in the Northern Akita Eco-Town Project.

Voice of the Municipality

"In the peripheral areas of Kosaka Cho in the northern part of Akita, mining and refining businesses were once active as operated by the DOWA group. The mine was later closed, and they started feasibility studies for recycling projects in 1998 under the RMP (Recycle Mine Park) Project (*1) promoted by the Ministry of International Trade and Industry (presently the Ministry of Economy, Trade and Industry). In the region, the lumber industry is active in the production of Akita cedar, one of the three major beautiful woods in Japan, and agriculture (vegetable farming) is also active in coastal areas. Therefore, waste from industry and farming was a unique feature of the region. Consequently, the prefectural government and municipalities (18 cities, towns, and villages at that time) in the northern region formulated an Eco-Town project aiming for the "formation of an environment-conscious society coexisting with rich nature," and the project was approved in 1999.

Projects for recycling home electric appliances and forming recycling and refining bases are a series of recycling projects using the know-how and resources of mining and refining businesses. They form a flow from projects for recycling home electric appliances to recycling and refining projects by collecting waste appliances through a wide-area door-to-door collection system using private business operators and bringing them to vacant mining lots (in Odate City)."

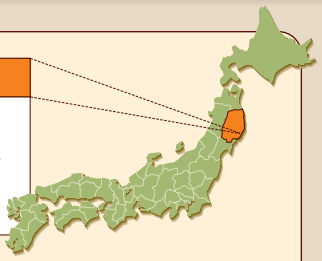
*1 Recycle Mine Park Project: A study to develop recycling technologies for metal resources utilizing mining technologies. Volume reduction and detoxification is achieved by collecting non-ferrous metals out of waste with the best use of technologies, facilities, and locations owned by mining and refining plants for supplying recovered energy to build a recycling society system for non-ferrous metal resources, while establishing better harmonization with regional communities. Survey and examination work started around in 1995.

Eco-Town Project Case Introductions

Kamaishi Eco-Town Project
(Approved in 2004)

A "town of iron and fishes" aims to return to nature by effectively using waste unique to the region

Municipality		Target Region
Kamaishi City, Iwate Prefecture Industrial Policy Division, Industrial Policy Department, Kamaishi City Government	**3-9-13 Tadakoe-cho, Kamaishi City, Iwate Prefecture 026-8686** **Phone: 81-193-22-2111 ex.321,322** **URL: http://www.city.kamaishi.iwate.jp/**	Kamaishi City



Concerning distinctive local articles that are discharged in versatile ways, impose large burdens to waterfront areas, and are difficult to be treated, town-building plans that are based on the back-to-nature scheme will be promoted with the cooperation of citizens, business operators, and the city government by establishing discharge restrictions in the area to reduce the burden on the rivers and the sea, which form the infrastructures for the living of citizens and industries in Kamaishi City, and by building collection and recycling systems.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

Kamaishi City is a "town of iron and fishes" located to the east of Iwate Prefecture and at the center of Rikuchu Kaigan National Park. Since they succeeded in hot metal distribution with Japan's first western-type blast furnace in 1857, the city developed as one of the most advanced industrial cities in the Tohoku District. The city has also flourished as an important fishery along the Sanriku Fishing Bank, one of the three major fishing banks in the world. Approaches to the environment were implemented a long time ago. The Pollution Prevention Task Force was established in 1960 as the first in the nation to develop environmental cleanup activities, and in 1979, a garbage and sewage plant featured a high-temperature melt treatment system utilizing iron-manufacturing blast furnace technologies. On the other hand, after 1989 when iron-manufacturing blast furnaces were shut down because iron manufacturing was affected by changes in the industrial structure, such as global iron and steel business depression, approaches toward a complex industrial city shifted into full swing by utilizing manufacturing infrastructures, including human resources and technologies. The Kamaishi Eco-Town Project aims to establish a recycling system within the region while collecting livelihood-discharged organic substances that are generated in civic life, establish fishing village settlements, and promote town building based on a back-to-nature scheme through the cooperation of citizens, business operators, and the administration.

In Kamaishi City, the Eco-Town project is positioned as part of their policy of industrial development, which is one of the priority projects in the fifth comprehensive plan. To implement the basic policy "concerning distinctive local articles that are discharged in versatile ways, impose large burdens on waterfront areas, and are difficult to treat, town-building plans based on the back-to-nature scheme will be promoted with the cooperation of citizens, business operators, and the city government by establishing discharge restrictions in the area to reduce the burdens on the rivers and the sea, which form the infrastructures for the living of citizens and industries in Kamaishi City, and by building collection and recycling systems."

Voice of the Municipality

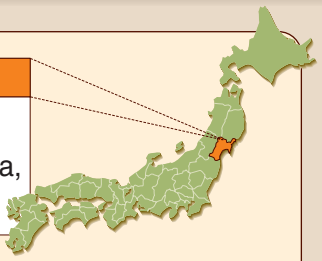
"In recent years, Kamaishi City was affected by a decrease in population, the shutdown of blast furnaces, and a slowdown in the fisheries industry, and we examined different methods of regional development by involving respective organizational tiers of the city government. We also paid attention to the successful case of the Eco-Town project in Kita-Kyushu City. In 2000, we promoted a survey project as part of Eco-Town software projects, and during the initial stages, we examined the automobile recycling business based on the know-how and infrastructure we had as the City of Iron. Thereafter, we projected various recycling business plans, which are currently being promoted as a recycling business unique to Kamaishi City, though they are not designated in the Eco-Town Aid Budget. Furthermore, as the city government surveyed seeds in various places throughout the nation (mainly university laboratories), we sought the feasibility of seeds, which should be projects (recycling projects) promoted by a municipality and deemed to have higher business viability. In this process, we found that an enterprise, or a fish source manufacturing company based in Kamaishi City, succeeded in development of a health food product by using the residues of fish-processed goods. After examining the survey results, we applied an Eco-Town Plan with the business set as the core part of the Plan."

Eco-Town Project Case Introductions

Eco-Town Project in Uguisuzawa-cho, Miyagi Prefecture (Present Kurihara City) (Approved in 1999)

Making a home electric appliance recycling plant for which mine technologies are skillfully utilized to be a new symbol of the town with the understanding of citizens

Municipality		Target Region
Kurihara City, Miyagi Prefecture Environment Division, Consumer and Environmental Protection Department, Kurihara City	**200 Oki, Kannari Sawabe-cho, Kurihara City, Miyagi Prefecture 989-5171** **Phone: 81-228-42-1117** **URL: http://www.kuriharacity.jp/**	All parts of Uguisuzawa area, Kurihara City



This is a plan to create a town (Eco-Town) that harmonizes with the environment, expand the Eco-Town area into the greater Osaki-Kurihara area with the Eco-Town as the originating base, and propagate project results to the nation by promoting the "establishment of a recyclable society system that produces less of an environmental load" and the "establishment of a social infrastructure for cultivating sound environmental industries" for which the potential power of Uguisuzawa is utilized to "form a sustainable environment-conscious society that is adequate for the 21st century."

As of April 1, 2005, Uguisuzawa was included in the new Kurihara City along with eight other towns and one village in the Kurihara area. For the time being, the Eco-Town Project in Uguisuzawa-cho, Miyagi Prefecture, was succeeded in the Uguisuzawa area of Kurihara City for further development in terms of measures and policies, as well as the Eco-Town Project.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

The mountain-ringed area (former Uguisuzawa-cho) in the western part of Kurihara City located in the northwestern part of Miyagi Prefecture was a major industrial area boasting the best production of lead, zinc, and ferric sulfide in Japan and producing gold and silver. The area, where the basic industry was mining and manufacturing for a long time, has faced serious depopulation since the closure of the Hosokura Mine (Mitsubishi Material group company) in 1987. They have been making a changeover of the mine to invite environmental industries after improving the facilities, such as tourist mine shafts. The Eco-Town Plan plays a key role in building an environment-conscious area. In 1996, the area was selected for an investigation in the eastern part of Japan concerning the RMP project by the Ministry of International Trade and Industry (its name at that time), and they participated in the working group. Subsequently, in 1997 and 1998, they examined the introduction of recycling enterprises. At this point, Mitsubishi Material Co., Ltd., which is the key enterprise of the mine, suggested a plan for commercialization of a recycling plant for home electric appliances by utilizing their expertise in mining, refining, and non-ferrous metal recycling, as well as using the existing infrastructures. After examining a model project for vitalization and promotion of depopulated areas, they established an Eco-Town project, the core part of which is the open recycling plant for home electric appliances. There had been efforts for recycling projects since Mitsubishi Material originally executed the recycling business of used battery cells beginning in 1965. On the other hand, because the mine area once caused environmental pollution from the mining, it was mandatory for the Eco-Town project to obtain the agreement of citizens. With regard to the measures, the PDP (Partnership Demonstration Program) system, as suggested by Mitsubishi Material, was first implemented for consensus building before reaching an agreement with the administration.

Voice of the Municipality

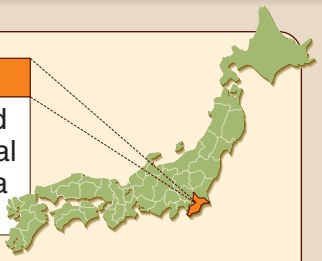
"The Eco-Town Plan has three characteristics. First, we want to make the project a sizable approach involving all small depopulated towns (at that time, an Eco-Town Plan at the town level was the first case). Second, we want to promote the project emphasizing the partnership of citizens, enterprises, and the administration. Third, let's build a recycling system for home electric appliances for the purpose of actors responsible for emissions. In particular, since the Eco-Town Plan set out to achieve job security and industrial development as its main core as triggered by employment instability caused by closure of the mine, the fact that we could secure employment twice as much as initially expected when the facility was completed was a happy misjudgment for us. We will be positively involved in the aspects of software, including environmental education and dispatching of information, and we will communicate the results and achievements of our activities for building up the region."

Eco-Town Project Case Introductions

Eco-Town Plan in Western/Central Areas of Chiba Prefecture
(Approved in 1999)

Developing recycling in a wider area utilizing the vitality of private sector in an area where urbanization and industrialization is being accelerated

Municipality		Target Region
Chiba Prefecture Recycling and Waste Management Division, Environmental and Community Affairs Department	**1-1 Ichiba-cho, Chuo-ku, Chiba City, Chiba Prefecture 260-8667** **Phone: 81-43-233-2758** **URL: http://www.pref.chiba.lg.jp**	Chiba City and Western/Central Areas of Chiba Prefecture



This is a project with the goal of Zero Emissions by positioning the western/central areas of Chiba Prefecture, where industrialization and urbanization have made particular progress as the Eco-Town area, and by improving recycling facilities through making the best use of local characteristics.

They position eight facilities as the core recycling facilities in the leading role and promote the introduction of recycling facilities featuring leading new technologies by utilizing the vitality of private sector thus targeting the smart utilization of distributed resources.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

In Chiba Prefecture, which is located next to metropolitan Tokyo, waste emissions have been increasing, as the population concentrates in the northwestern and central areas of the prefecture and urbanization and industrialization accelerate (1.05 kg/day per person in 2005). The tight situation concerning landfill space for waste became a serious issue, and they formulated the Eco-Town Plan aiming for "town-building harmonizing with the environment" by using a recycling system that does not depend on landfill disposal. The features of the plan include cooperation with private enterprises concerning sites and technologies and the wide-area disposal of general waste. During the past 10 years, Chiba Prefecture enjoyed a high recycling rate competing for the No. 1 or No. 2 position among prefectures throughout the nation. This can be fully attributed to advanced group collection and separate collection of waste that they learned from the past tight situation of waste disposal. In recent years, promotion of the Eco-Town Plan has played a part in such activities. In an area where urbanization and industrialization are accelerating, the cooperation of citizens and enterprises could be a model serving as a useful reference for other municipalities as an urban-type of Eco-Town project. There are eight major facilities for the Eco-Town Plan (eco-cement manufacturing facility, direct-melt facility, Soga Ecology Park Improvement Project [methane fermentation gasification system/project lead by Chiba City], waste timber/waste plastics recycling facility, vinyl chloride-based waste recycling facility, high-purity metal/plastics recycling facility, seashell recycling facility, and construction-derived composite materials waste recycling facility). Either project would be a project that would be realized by working on the issue of how landfill disposal can be reduced.

Voice of the Municipality

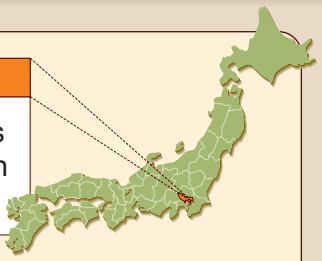
"The recycling rate in Chiba Prefecture was 24%, which is ranked No. 2 throughout the nation (in 2004). We think the high recycling rate can mostly be attributed to the Eco-Town Plan. In areas such as the western and central areas of the prefecture, we cannot build a new landfilling facilities, and we needed a facility and ideas to reduce waste, emissions of which remained unchanged from the past. We think the Eco-Town Plan fully represents the background unique to an urbanized and industrialized area wherein cooperation was achieved with ideas from the administration and business operators under the tight situation of such a final disposal facility. Of course, the most significant aspect was that the grounds for all-out implementation of separate collection by citizens had been realized as the previous step to operations of respective projects under the Eco-Town Plan."

Eco-Town Project Case Introductions

Tokyo Metropolitan Super Eco-Town Project
(Approved in 1998)

Tackling effective management of urban waste as part of the Super Eco-Town Project

Municipality		Target Region
Tokyo Metropolitan Government Environmental Planning Office, Waste Management Division, Bureau of Environment Department	**2-8-1 Nishi-Shinjyuku, Shinjyuku-ku, Tokyo 163-8001** **Phone: 81-3-5388-3593** **URL: http://www.kankyo.metro.tokyo.jp/haitaibu/superrecotown/supereco_index.htm**	Seaside areas of Metropolitan Tokyo



In the metropolitan areas, the situation for landfilling facility sites is becoming tight. Particularly, the Tokyo metropolitan area has faced such problems as an insufficient number of disposition/recycling facilities for industrial waste and illegal dumping. In March 2001, for the purpose of solving waste-related problems in the Tokyo Metropolitan area, they proposed the Tokyo Metropolitan Super Eco-Town Project, including the introduction of new recycling facilities, aiming for 50% reduction in landfilling volume of industrial waste jointly by one metropolitan government and three prefectural governments. The Urban Rejuvenation Headquarters officially announced, in the Zero Garbage Council, the final report stating how the facility should be managed. Tokyo Metropolitan Super Eco-town Project shows the specific policies to ensure the implementation of the plan and the establishment of waste management and recycling facilities.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

In Tokyo, where the tight situation for disposal sites for diversifying and increasing waste in the Tokyo metropolitan areas is a serious problem, they have been promoting improvement in waste treatment/recycling facilities by utilizing sites owned by the Tokyo metropolitan government in waterfront areas to solve the problem and to promote the introduction of environmental industries. In 2001, the Tokyo Metropolitan government proposed an urgent project to revive the Tokyo metropolitan area in the next five years at the cost of ten trillion yen to the central government, including the Tokyo Metropolitan Super Eco-Town Project. In the same year, the Urban Rejuvenation Headquarters was established, with the prime minister assigned as chief of the headquarters, and they officially announced in the Zero Garbage Council the final report stating how the facilities should be managed. The Tokyo Metropolitan government invited public participation in the Super Eco-Town Project in 2002 and 2006 to determine the business operators. The total of eight facilities that lead in the treatment and recycling of waste from the Tokyo metropolitan areas, including waste from construction sites, information apparatuses, and foodstuffs, were introduced for operations in the landfill sites located inside the central breakwater and on Jonanjima Island. At present, the Tokyo Super Eco-Town Council was also established by business operators for further organic cooperation among the companies with a view toward wider-area cooperation in the Tokyo metropolitan areas. Thus, the approaches are continuously being implemented for the effective treatment of waste from the metropolitan areas around Tokyo within the region as much as possible.

Voice of the Municipality

"As of the end of 1999, there were not many incinerators for industrial waste in the Tokyo metropolitan area, and about 70% or more of the landfilling in total was treated in other prefectures, which caused a variety of problems, including illegal dumping and inadequate disposal. The Tokyo metropolitan government, as part of the urban rejuvenation projects, invited public participation in the Super Eco-Town Project, which utilized sites owned by the Tokyo Metropolitan government in Tokyo waterfront areas and selected business operators. The roles of the metropolitan government include securing sites owned by the metropolitan government required for locating the facilities, determining facilities to be improved and business operators, and promoting and adjusting the plan in general. We are now developing the project through adequate implementation of measures to improve advanced and highly-reliable waste treatment/recycling facilities, which are expected to improve the waste treatment rate; reduce the amount of landfilling within the Tokyo metropolitan area; promote solutions to waste-related problems; ensure security; and focus on environmental concerns. Note that the Jonanjima area is in a restricted industrial zone, and no restrictions were established there, but standards for the light-industrial zone were set out as self-imposed values, and the values were cleared.

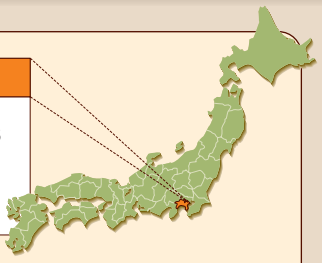
By implementing the project for infectious wastes and construction-derived composite wastes, a system for treating the entire volume of wastes discharged within the Tokyo metropolitan area has been secured. In addition, for business operators to be invited, we disclose related information and accept applications for inspection tours. We provide inspection tours for the citizens of Tokyo that are hosted by the metropolitan government; we sponsored 16 tours in 2006."

Eco-Town Project Case Introductions

The Basic Concept for the Project to Make Kawasaki City Environmentally Harmonious
(Approved in 1997)

Developing the waterfront industrial zone to a major environmental industrial zone by making the most of enterprises and accumulated high technologies

Municipality		Target Region
Kawasaki City Division of Industrial Promotion, Bureau of Economy	**1 Miyamoto-cho, Kawasaki-ku, Kawasaki City, Kanagawa Prefecture 210-8577 Phone: 81-44-200-2339 URL: http://www.city.kawasaki.jp/**	Coastal areas of Kawasaki City



This is a new town-building project to make the city environmentally harmonious, aiming for effective utilization of discharged resources and waste generated within the city by recycling them with enterprises located in the city and by making the most of the higher concentration of enterprises in coastal areas and accumulated environmental technologies of Kawasaki City.

- The project will develop an Eco-Town Plan including promotion of ecologically sound enterprise operations and systems and making the area ecologically sound through mutual cooperation among a number of different enterprises and recycling facilities in the coastal area, as well as studies and information on sustainable growth of the town.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

The intended area for the Basic Concept for Kawasaki Eco-Town Project is the industrial zone located to the south of the Industrial Road in the coastal area of Kawasaki City, which occupies almost the whole Kawasaki-ku to the south of the JR Tokaido Line. The area is located close to the Tokyo metropolitan area, and it has accumulation plants in the Keihin industrial area, as well as a concentrated logistic infrastructure of ports, railways and canals, and energy facilities, which are essential for resource industries. By utilizing the accumulation and making the plants and facilities work together organically, the project aims to build a competitive resource recycling industrial system. The project will be promoted by implementing the following four steps: (1) developing ecologically sound enterprise operations and systems (improvements in environment management systems and achievement of zero emissions of industrial effluent and waste); (2) making the area ecologically sound through the cooperation of enterprises; (3) performing studies for the realization of an area that will grow in a sustainable manner centering on the environment; and (4) gathering information from the activities of enterprises that will be publicly disseminated throughout the area, as well as in developing countries.

Voice of the Municipality

"We think each operator involved in the Kawasaki City Eco-Town Project is executing its own approaches. In particular, approaches concerning resource recycling and energy issues by the NPO Liaison Center for Creation of Industry and Environment, which consists of enterprises representing Kawasaki City, would be a significant feature.

In addition, the Kawasaki Zero-Emission Industrial Park was established as a model facility for the Kawasaki Eco-Town Project, and they are tackling the problem of minimizing environmental loads, for example, by restricting emissions and by-products generated during business activities as much as possible.

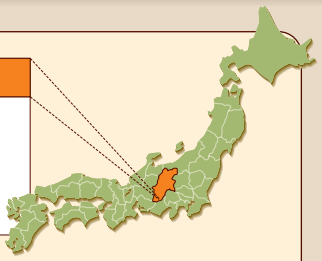
The CORELEX group (Tokyo plant of San-Ei Regulator Co., Ltd.), which is located in the industrial park, recycles mixed paper, which is normally treated as contraindicated items. As joint approaches with the administration and citizens, they are executing various attempts at the plant, for example, to separate and collect paper waste and film-based plastics that had been incinerated by the city government in the style of current models in certain areas."

Eco-Town Project Case Introductions

Tenryukyo Eco-Valley Project
(Approved in 1997)

A unique community-type Eco-Town: a new environment-creation city to be built by people, nature, industries, and citizens

Municipality		Target Region
Iida City Planning Division, Planning Department	**2534 Okubo-cho, Iida City, Nagano Prefecture 399-8501 Phone: 81-265-22-4511 URL: http://www.city.iida.nagano.jp/**	Whole area of Iida City



This is a project to form an advanced, environmentally harmonious area for industrial exchange bases by leading approaches by local residents and industries to "new town-building." This is an open and all-hands type of prefectural economic development project that is planned, under the themes of "industry," "cities," and "community" that harmonize with the environment on about 100 ha flatland to be completed by 2002 according to the Tenryu River Flood Control Measures Project.
→ The project sees actions toward the environment as an opportunity to positively uplift the local economy and aims to strategically utilize the project as an industrial policy or a local development policy.
→ It is also expected that environment-related industries will develop as a policy to cultivate new industries that create the industries spontaneously by fully utilizing industrial concentration in the area.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

The Minister of International Trade and Industry (the name at the time) made an interesting comment when the Eco-Town Project was approved. "Although (the Eco-Town Plan of Iida City) is a weak project, its concept is unique. When the project is realized, it could be a model for many municipalities similar to Iida City." Software projects went ahead, not that there were hardware projects first. It is assumed that this attitude to try to create things rooted in the area could be a good help for building subsequent Eco-Towns. Actually, this is a citizenship type of project wherein participation in the Eco-Town Project is determined first with the consent of citizens, and intended projects that comply with the local development policy are then selected in the form of a public offering after approval.

The Iida City government declared the "environmental, cultural, and shining city Iida where either people or nature is beautiful" in the 4th Iida City Basic Project (a ten-year plan starting in 1996), and prepared an Eco-Town Project as one of their major projects. They planned the Eco-Valley Project at Tenryukyo as a model area where flood control measures were mandatory (the area frequently experienced floods, and in 1961, a flood hit the area causing extensive damage). In the Eco-Town Project, from the viewpoint of forming an environmentally harmonious economy, they suggested a society where all aspects of the area, from daily living to industrial activities, can harmonize with nature, and the area can continue to grow into the future (Iida City was a pioneer as a municipality that made the declaration to be an environmental and cultural city). The Eco-Town is one of those that have implemented the Eco-Town philosophy "to promote advanced town-building with out-of-the-box thinking" at the earliest stage. This is a distinctive plan offering local development operations that multiply civil power to be reflected in the city administration with land utilization of the Eco-Valley Plan in which the operations also work as flood control measures for the Tenryu River.

Voice of the Municipality

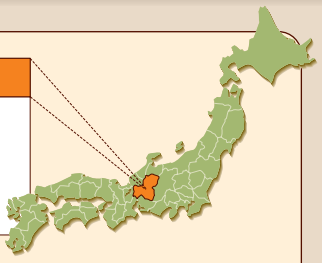
"Originally, Iida City's steps of building a town that coexists with nature had been progressing while reflecting citizens' opinions. We made approaches that were well-reputed within and without the city, and we received many official commendations. Our approaches were of the type where we formulated plans by establishing councils together with local residents, and the basic projects were made up through examinations with citizens. Such approaches led to the Eco-Town Project. One of the reasons for the good communication between the city administration and citizens is that community hall activities were historically active as civil activities, and there was the background that the city administration would plan or manage certain events jointly with citizens. Concerning waste treatment, we implemented charged treatment of garbage before other municipalities (garbage treatment is implemented in a wide area covering 15 cities, towns, and villages), and citizen awareness of a separate collection system is strong. In the Tenryu River Valley, which should be the base of the Eco-Town Project, we established the Iida City Environmental Technology Development Center, which sponsors visitor tours. We also established the Environment Industry Park, as well as the Factory Park and Eco-Housing residences, so that the facilities can be utilized by citizens."

Eco-Town Project Case Introductions

Gifu Prefecture Eco-Town Plan
(Approved in 1997)

Cooperation among business operators for turning waste plastics collected by the municipality into new products

Municipality		Target Region
Gifu Prefecture Wastes and Recycling Affairs Division, Environmental and Community Affairs Department	**2-1-1 Yabuta-Minami, Gifu City, Gifu Prefecture 500-8570** **Phone: 81-58-272-1111** **URL: http://www.pref.gifu.jp/**	Whole area of Gifu Prefecture



To ensure adequate treatment of wastes in the prefecture, the Eco-Town Plan was formulated as the Gifu Prefecture Global Environment Village, which improves the waste treatment system integrated with the community. The plan aims to establish facilities in the prefecture, with the core facilities related to waste treatment, for studies and practices concerning resource utilization, including recycled materials and use of waste heat, as well as global environmental issues. The plan further aims to construct a variety of facilities in the peripheral areas of health, welfare, medical care, lifelong learning, culture, and sports in a composite and organic manner, thus ensuring preservation/creation of a favorable living and natural environment and reducing the load on the global environment.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

The main subject of the plan is to achieve adequate treatment of wastes within the prefecture. The plan included the project Global Environment Village, which was scheduled to be developed in the Kamo area, Kani area, and two model areas.

In Gifu Prefecture, small and medium local industries are active. On the other hand, geographical and natural conditions are suitable for factories, and many manufacturing companies are represented in the prefecture. In recent years, the concentration of enterprises related to multimedia and state-of-the-art electronics has been enhanced. The Eco-Town Plan had two main pillars. One pillar, concerning waste treatment facilities (Global Environment Village Project: the core areas are Kamo and Kani in the Chunoh District) is to construct sports facilities by attaching ancillary facilities to the waste treatment facilities, enhance awareness of the environment in the respective areas, and build a base for waste treatment. The other pillar is to disseminate certified recycling products to create an environmentally friendly society. Under the Gifu Prefecture Eco-Town Project, two facilities that comply with the Containers and Packaging Recycling Law are presently in service.

Voice of the Municipality

"Under the Eco-Town Plan, we were scheduled to handle liquid slag, PET bottles, waste tires, waste rubber, other plastics of plastic containers, paper manufacturing sludge, and wood chips. Considering the local characteristics in the prefecture (the Gifu area generates much rubber-based wastes, and the Seinoh area generates much waste plastics from parts and components), we planned to construct and improve the hardware facilities. Unfortunately, however, the Global Environment Village Project is at present subject to review. As for the establishment of a recycling-based society, the Gifu prefectural government continues to enforce the unchanged policy, and promotion of the 3Rs is positioned in the process of environmental administration. The policies and measures include holding fair events for disseminating certified recycling products, making the certification more stringent, campaigns for use of recycled products, and green purchasing. In addition, for cultivating recycling industries, we started to provide subsidies for products that will be certified in the future."

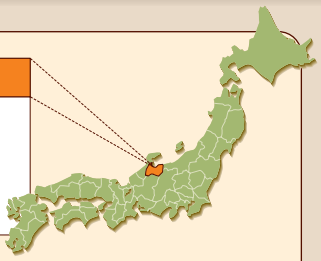
Eco-Town Project Case Introductions

Toyama City Eco-Town Plan

(Approved in 2002)

An Eco-Town where the project was promoted through the joint efforts of business operators and the municipality, and the needs of business operators were adjusted to those of the citizens, thus attracting attention at present.

Municipality		Target Region
Toyama City Environmental Policy Division, Environment Department, Toyama City	**7-38 Sakurashinmachi, Toyama City, Toyama Prefecture 930-8510 Phone: 81-76-443-2053 URL: http://www.toyama-ecotown.jp/**	Whole area of Toyama City



In Toyama Prefecture, many material industries, such as plastic processing businesses, are located in the industrial region of the Hokuriku area, and thus many raw materials are in demand by industries in the prefecture. In addition, the prefecture has a cold and humid climate, and there is demand for a sizable volume of materials for warming and humidity control.

The Eco-Town Plan will promote the building of a town that forms a loop of resource recycling within the area by utilizing the local characteristics.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

Toyama City had been working on separate group collection of containers and packages ahead of other municipalities before the Containers and Packaging Recycling Law was enforced. In particular, their approach to separately collect paper containers and packages, excluding those made of composite materials, and turning them into raw materials for papers within the area was highly evaluated as the Toyama System. The Toyama Eco-Town Plan aims to further enhance awareness for recycling by utilizing such citizens' cooperation and activities, and to realize "Toyama—The city that is friendly to people and the environment" by promoting activities for reduction in waste and recycling involving the whole area, as well as by promoting use of recycled goods and the dissemination of such goods.

The Toyama City Eco-Town Industrial Park, which should be the base for the plan, was originally formed as an industrial area, but they needed to hold many explanatory meetings so that they could build a consensus among residents since the park is located next to residential areas. They obtained the consensus by finalizing the Environment Preservation Agreement, which declares the project as an environmentally friendly enterprise, between Toyama City and enterprises, and between Toyama City and citizens. The style where the city administration mediated between business operators and citizens seemed to provide strong support to business operators. Besides the two business operators who were introduced in the main story, other business operators, including a food-recycling operator (Toyama Green Food Recycle Co., Ltd.), were actively making approaches or demonstration experiments to achieve zero emissions in the park. This is a lodgment type of Eco-Town to utilize idle land. For the plan, however, the city government supports technologies of enterprises located in the park, and they aim for zero emissions starting from a small framework, which is attracting greater attention from other municipalities.

Voice of the Municipality

"To enhance the continuous understanding of the Eco-Town Industrial Park, we opened the Eco-Town Communication Promotion Center as a municipal facility. We are working on the dissipation and promotion of the plan to realize a citizen-participation type of Eco-Town by actively sponsoring events in environmental studies, such as Eco-Town Gakuen. In addition, we publish the eco-magazine, Midori-San, and distribute it to 160,000 households in the city. We also started next generation education, for example, to promote tours to the park aiming for dissemination of the plan in elementary schools and junior-high schools, and set up a page introducing the Eco-Town with supplementary reading materials. We hope all elementary school pupils will make at least one visit to the Eco-Town. Software activities are not sufficient at present, but this is also a subject that we want to strongly promote."

Eco-Town Gakuen: They say the participation status in Eco-Town Gakuen is favorable, and the enrollment seats rapidly filled up.

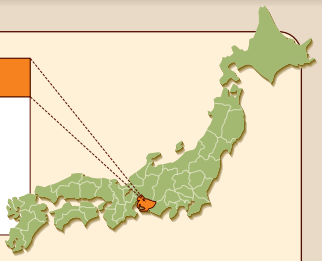
Midori-San: The magazine is published monthly by the Environment Department of Toyama City Government and the Kitanippon Shimbun.

Eco-Town Project Case Introductions

Aichi Eco-Town Plan
(Approved in 2004)

The administration makes the most of people and technologies in the area. Turning the traditional manufacturing efforts to the creation of new environmental industries through collaboration between industry, educational institutions, and the administration

Municipality		Target Region
Aichi Prefecture Recycling and Waste Management Division, Department of the Environment	**3-1-2 Sannomaru, Naka-ku, Nagoya City, Aichi Prefecture 460-8501** **Phone: 81-52-961-2111** **URL: http://www.pref.aichi.jp/**	Whole area of Aichi Prefecture



The Plan aims to tackle the creation of new recycling businesses that recycle wastes, such as wood-based wastes and sludge/ash dust, which have been problems for disposal in Aichi Prefecture, by utilizing advanced industrial technologies that have so far been accumulated in the area, promotion of environment-conscious activities of enterprises, as well as promotion of Zero Emission, including reduction of volume of garbage from business offices and households.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

We often hear, "Today, Aichi Prefecture is most vigorous," from municipalities in Aichi prefecture and from private business operators. What are the elements of this vigor? Aichi Prefecture is a prefecture of manufacturing that has been ranked No. 1 in Japan for the total shipment value of manufactured goods for the past 28 years. At the same time, the prefecture enjoys the No. 5 ranking in shipment value of agricultural products, and it has well-balanced industries. On the other hand, we have a strong impression that their approaches to the environment were further activated with the Expo 2005 Aichi, Japan as a turning point. Even though the prefecture has large-scale cities, the status concerning waste and the recycling rate are favorable. Emission of general waste is on a downtrend since old communities are working effectively, and the resource collection volume is increasing. The recycling rate of industrial waste exceeds the national average rate, which shows that industrial enterprises are making advanced approaches.

The slogan of the Aichi Eco-Town Plan is "aiming for a manufacturing prefecture where the environment and economy revolves in a favorable manner." The Plan is formulated not for the purpose of taking preventive measures for the hollowing out of the industry or inviting enterprises, but fostering the potential of manufacturing businesses that concentrate in the prefecture to the utmost extent, further enhancing the recycling rate, which is basically at a high level, and further reducing environmental loads. The base for such activities should be the Aichi Resource Recycle Promotion Center. Approaches by the Center include many interesting aspects, such as the coordinator system, which makes use of private sectors. Such approaches are listed at the end of this section for your reference.

Voice of the Municipality

"One of the features of Aichi Eco-Town Plan is that business operators are not specialized in the recycling business, and manufacturers are involved in the recycling of wastes for making raw materials by making use of their manufacturing know-how. Another feature is that the plan does not intend to implement activities by purchasing new sites, and partly because the prefectural government joins the plan to examine commercialization of projects in depth, no project has resulted in failure. We think we will organically execute all processes, from selection of projects, examination, and support to the awarding of prizes, and systematically operate respective projects, not by doing it independently, but by assuring close cooperation among enterprises. Specific examples of this include three projects that systematically treated wood-based wastes by using a series of technologies of industry, academia, and government."

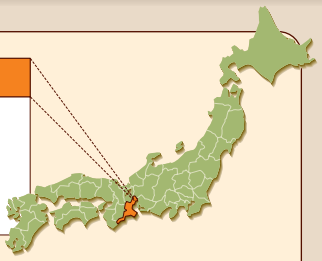
The Promotion Center is on the first floor of the Government Building West. Products and profiles of business operators involved in the Eco-Town Plan are permanently exhibited in the booth in the lobby.

Eco-Town Project Case Introductions

Suzuka Eco-Town Plan
(Approved in 2004)

Building a resource recycling-oriented society where residents, enterprises, and the administration are united in an area in which industry and agriculture go together

Municipality		Target Region
Suzuka City, Mie Prefecture Industrial Policy Division, Department of Industrial Development	**1-18-18 Kanbe, Suzuka City, Mie Prefecture 513-8701 Phone: 81-59-382-9045 URL: http://www.city.suzuka.lg.jp/**	Whole area of Suzuka City



This is a plan to develop, by the fiscal year 2010, the major projects stated below based on the concept of the 4Rs (refuse, reduce, reuse, and recycle) through joint efforts among residents, enterprises, and the administration, achieve a resource recycling rate of 30% or over, and achieve a reduction of waste emission per day per capita to 1,100 g or below, which is the target value of the municipal solid waste management plan of the city government.
(1) Cultivation of environment-conscious industries;
(2) Reduction in waste volume (promotion of reuse and reduction); and
(3) Recycling of waste (promotion of reuse and recycle).

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

As a result of enhancement of attracting enterprises by making use of the geographical superiority that Suzuka City is located at the midpoint of the Chubu area and the Kinki area, as well as use of the vast vacant lot of military facilities, concentration of industries related to electrical machines, electronic appliances, and chemical goods made progress mainly in the textile and automobile industries, which grew Suzuka City to be an industrial city ranked No. 2 in the value of manufactured products shipped in the prefecture. The core industry is the automobile industry, which occupies 70% or more of the shipment value of manufactured products. On the other hand, the city enjoys the No. 1 position in gross production of agriculture in the prefecture, which makes Suzuka City a well-balanced town in terms of agriculture and industry. The Eco-Town Plan includes projects that reflect such characteristic of the city.

Suzuka City has been working on town building, while it designated the slogan “an energy-creating city that is environmentally friendly and full of security and relief” in the 4th Suzuka Comprehensive Plan formulated in March 2000. Concerning the environment, in particular, they are making approaches to secure a comfortable environment according to the Basic Act on Suzuka City Shiawase Environment. As for the core project of the Eco-Town Plan, timing of the Plan agreed with promotion timing of the on-the-premise Zero emissions program conducted by the Suzuka Plant of Honda Motor Co., Ltd. Under such a background, the project is promoted by Honda Motor Co., Ltd., and Industrial Policy Division (Waste and Recycling Division for municipal solid wastes) of the city government joins the company as a partner. They had problems of reduction in business-related wastes and sludge disposal of industrial wastes on the background.

The plan also has a feature that it emphasizes environmental education, and approaches are being developed in a manner that works fine for residents, enterprises, and the administration.

Voice of the Municipality

“As a core project of the Eco-Town Plan, the Suzuka Plant of Honda Motor Co., Ltd., is now tackling recycling of discharged sludge from the painting process of automobiles. The object is to recycle paint sludge (130 tons a year). The project is to biodegrade paint sludge and food residuals discharged from lunches provided by local elementary and junior-high schools, the dining hall of Suzuka Plant, and other places, and turn them into compost. The city government supports the project by collecting food residues of lunches provided by schools.

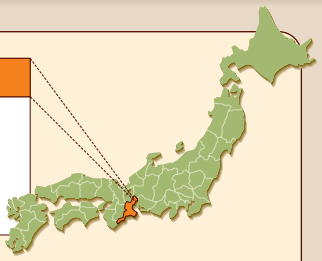
Concerning software projects, we established an environmental space, Furusatono Mori (hometown forest), in the Suzuka Plant. Here, for example, sludge waste from the effluent treatment facility is turned to soil for breeding nursery plants, and the space is offered for elementary and junior-high school pupils to experience what is going on. As for the city government’s unique approach, we are promoting next-generation environmental education, such as reuse of toys and teaching on demand, thus enhancing cultivation of residents’ awareness through the environmental education.”

Eco-Town Project Case Introductions

Yokkaichi Eco-Town Plan
(Approved in 2005)

Revitalization of Japan's oldest industrial complex started against a background of a special zone and Eco-Town for enhancing new cooperation with local industries.

Municipality		Target Region
Mie Prefecture Industrial Concentration Office, Department of Agriculture, Fisheries, Commerce and Industry	**1-5 Suwa-cho, Yokkaichi City, Mie Prefecture 510-8601** **Phone: 81-59-354-8178** **URL: http://www.city.yokkaichi.mie.jp/**	Whole area of Yokkaichi City



This is a plan to develop environmental industries whose core business is recycling of waste plastics and to promote the establishment of resource recycling systems and revitalization of local industries in an integrated manner by promoting 3R approaches through cooperation among a wide range of leading organizations, such as citizens, enterprises, and the administration, and also by enhancing cooperation with processing and assembling industries located in the peripheral areas by making use of advanced technologies, human resources, and know-how of chemical-materials industries located in the waterfront area.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

Although the Yokkaichi Eco-Town Plan is designed for the whole part of Yokkaichi City, the main stage of the hardware projects under the present status is the Yokkaichi industrial complex. The Yokkaichi industrial complex was formed during the latter half of the 50s, and it is the oldest complex among those that are presently in operation. Therefore, it is less competitive compared to new industrial complexes. In 2001, an ethylene plant facility of Mitsubishi Chemical Corporation was shut down, which caused serious concerns regarding the hollowing out of the industrial complex. Under such circumstances, approaches were implemented for revitalization of the complex with the cooperation of the Mie Prefectural Government and factories after having approval of the special district for industrial revitalization using integrated technology in 2003. High technological capabilities, human resources, know-how owned by material-related industries located in the Yokkaichi industrial complex, and processing and assembly industries concentrated in the peripheral areas (factories of automobile industries, semiconductors, and liquid crystals are located in the periphery of Yokkaichi City) strengthened cooperation to convert their products into those with higher added-values. Furthermore, such strengthening of cooperation created some pillars for creating new industries (for such new industries, they planned to tackle environmental industries in addition to fuel-cell industries, next-generation display units, and biomedical industries). With the background that recycling businesses of OA equipment and electric home appliances had started operations within the industrial complex, it was possible to advance approaches in environmental aspects and utilize infrastructures, such as idle lands and utilities. Such factors matched the environmental industry development plans of the prefectural and city governments, resulting in introduction of the Eco-Town core project (Suzuka Fuji Xerox Co., Ltd.) that operates recycling of waste plastics inside the Kawajiri area of Mitsubishi Chemical Corporation's Yokkaichi Plant.

Voice of the Municipality

"In the case of Yokkaichi City, a foundation that enterprises were concerned over environmental issues had been established during the time they faced the environmental pollution issue of Yokkaichi Asthma. In 2001, the Investigative Commission for Yokkaichi City Waterfront Area Industrial Zone Revitalization Program was organized. In the flow of activities (*1), for the purpose of vitalizing the industrial complex, we applied for an Eco-Town Project in terms of cultivation of environmental industries in the special district. At that time, there was an opinion that application processing is difficult only for the waterfront area, and any new events cannot be done without cooperation among the basic material industries and the processing and assembling industry that make use of characteristics of Yokkaichi City. For formulating the Eco-Town Plan, we established working groups inviting enterprises, and environment and industrial departments and bureaus of the prefectural and city governments.

At present, we started approaches in October 2005, in addition to the core projects of Eco-Town, to collect PET bottles via our own routes (whole city area station system) and treat them. Independent efforts for collecting foodstuff trays are being performed by supermarkets, and we make efforts for recycling them since their recycling is technically possible. Our major problem in the future is going to be related to software projects."

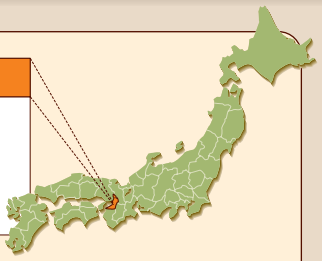
*1 The purpose of the investigative commission and sectional committees is not directly intended for application to the Eco-Town Project. The fact is that movements, such as the Eco-Town Plan that were dealt with at later days, appeared during hearing sessions or activities of such commissions. Representatives from the prefectural and city governments and enterprises sat at the same table, which created an effect that information communication became easier.

Eco-Town Project Case Introductions

Osaka Prefecture Eco-Town Plan
(Approved in 2005)

Turning the waterfront area, including Sakai District No. 7-3 Landfill Site, to a model of recycling-oriented society where the area will coexist with nature

Municipality		Target Region
Osaka Prefecture Recycle-Oriented Society Promotion Office, Department of Environment, Agriculture, Forestry and Fisheries	**2-1-7 Otemae, Chuo-ku, Osaka City, Osaka Prefecture 540-8570** **Phone: 81-6-6941-0351** **URL: http://www.epcc.pref.osaka.jp/junkann/ecotown/**	Whole area of Osaka Prefecture



This plan aims to form a nationwide model of a recycle-oriented society in the Osaka Urban Area and to promote construction of a recycling facility to which new technologies and systems are introduced for the purpose of vitalizing industries in Osaka through the development of environment-related industries.

Furthermore, in order to promote approaches toward building up a recycle-oriented society in the area, the plan also aims to form a resource-recycling network in which prefectural residents, research institutions, enterprises, and the administration participate for promotion of the Osaka Prefecture Eco-Town Plan. In particular, in the Sakai District No. 7-3 Landfill Site, the plan aims to form the district to be an area that symbolizes resource recycling and spontaneous regeneration while incorporating the recycling facility to which new technologies and systems are introduced and the creation of a "forest of coexistence," thus utilizing the district for implementation of environmental studies.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

Osaka Prefecture had a problem that the recycling rate was lower than the national average, and inadequate treatment showed no signs of a significant decline, irrespective of the fact that the prefecture generated vast amounts of waste as a prefecture with large cities. The essential feature of the Osaka Prefecture Eco-Town Plan is to create a model for forming a recycle-oriented society by utilizing idle sites and by making efforts for spontaneous regeneration. In the initial stage, local industrial waste contractors and enterprises that intend to contribute to the environment survived among business operators were chosen from among the public under the Eco-Area Project. Although they intended dispersed-type of business locations, aiming to renovate the idle sites of industrial waste disposal facilities as recycling facilities, it was finally decided to employ the lodgment type because of problems, such as introduction of business operators. The core area is the waterfront area in Sakai City called Sakai District No. 7-3 Landfill Site, which is close to Kansai International Airport. At present, five companies operating in this district set up the Sakai Waterfront Eco-Factory Council and started cooperative actions within the complex. They also support training programs on the 3Rs for Asian countries, and many people visit the Eco-Town, not only from within the country but from overseas countries, despite the fact that operations of the facility just started recently in the district. The neighboring area is named the "Forest of Coexistence," which became a site for environmental studies as part of the software projects of the Eco-Town, allowing prefectural residents to observe nature and the planting of trees.

Voice of the Municipality

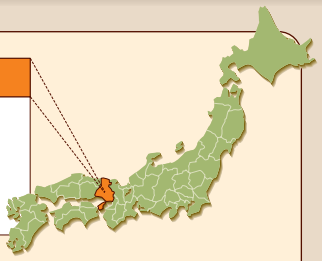
"In the beginning, we chose Eco-Area projects from among the public. We had applications for 100 or more projects as we recruited ideas, not only through the press and Web sites, but also through mail magazines issued by the Department of Commerce, Industry and Labor and industrial newspapers. Finally, 32 project plans survived. In the following year, we established a promotion council comprising members from the prefectural government and four city governments in which the Eco-Town would be located, and the council became the mother body of the Eco-Town Plan. For the locations of enterprises, we not only offered sites but also made explanatory meetings as the administration, as well as support in terms of software. During the development stages of the Sakai District No. 7-3 Landfill Site, we had discussions with business operators almost everyday to enhance understanding by the Sakai City government through integrated efforts of the administration, the private sector, and business operators. The Sakai District No. 7-3 Landfill Site is an example of effective utilization of an area that was originally the terminal treatment plant for industrial waste. It includes a park named "Forest of Coexistence" for execution of spontaneous regeneration projects and is formed as a district where people can experience ecology. In addition, we are going to provide sites for experimental studies, though the scale is small. It is located near Kansai International Airport and people plan tours from municipalities, different types of businesses, academic conferences, and other countries. In January 2006, we held a symposium concerning the Osaka Prefecture Eco-Town to enhance people's awareness of the Eco-Town."

Eco-Town Project Case Introductions

Hyogo Eco-Town Project
(Approved in 2003)

Promoting an Eco-Town by making use of local industries through careful joint initiatives between the public and private sectors covering large enterprises, as well as small and medium enterprises

Municipality		Target Region
Hyogo Prefecture Recycle-Oriented Project Section, Environment Division, Department of Health and Quality Life, Environment Management Bureau	**5-10-1 Smimoyamate-dori, Chuo-ku, Kobe City, Hyogo Prefecture 650-8570** **Phone: 81-78-341-7711** **URL: http://www.web.pref.hyogo.jp/**	Whole area of Hyogo Prefecture



This plan aims to realize resource recycling through wide-area cooperation that deals with the needs in other areas by making use of industrial and logistics infrastructures that had been developed in the older days.

In addition, considering local characteristics that recycling activities of the citizen-participation type are usually active and volunteer activities in earthquake disaster reconstruction is further activated, as well as continued approaches for recycling of containers and packages, the Plan also aims to enhance cooperation with a wide-range of entities, including citizens and NPOs.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

Hyogo Prefecture, where there are many networks of expressways (the total length in the prefecture is No. 1 in Japan) and railways in every direction and the prefecture faces both the Pacific Ocean and the Japan Sea, has a lot of living and industrial areas. For the Eco-Town Project, movements were required in such ways that the administration assumed the leadership in implementing care for business operators who should be the core of the project, while making use of the characteristics of the respective areas. The uniqueness of the Eco-Town Project includes the realization of resource recycling in which industrial and logistics infrastructures peculiar to Hyogo Prefecture, which had been well-developed from the old days, were utilized in wide areas, and promotion of citizen-participation type of recycling activities through cooperation with related entities, citizens, and NPOs. Immediately after approval of the Eco-Town Project, the Eco-Town Promotion Conference was inaugurated, and the Conference has been developing Eco-Town building while ensuring close communication with the Hyogo Prefectural Environmental Create Center Public Corporation and NPOs, as well as local industries (involving academia), irrespective of the size of such industries. They are ensuring close communication and cooperation while playing a role to support projects in respective areas and connect the projects in organic manners by actively executing various workshops, local meetings, and dissemination and enlightenment activities. From the viewpoint of cooperation in wider areas, the Keihanshin Zero Garbage Type of City Promotion Council, which comprises members from 9 prefectural and city governments in Keihanshin district, as well as related ministries, and the Environment Business Kansai Project (*1) are moving ahead.

*1 The boosting organization is the NPO Recycling System Center, and organizations at liaison bases are Hyogo Prefectural Environmental Create Center Public Corporation and Sakai New Business Creation Center Co., Ltd.

Voice of the Municipality

"Immediately after approval of the Eco-Town Project, the Eco-Town Promotion Conference (a private organization; the Chairman is the Prefectural Governor) was inaugurated. Members of the Conference consist of the prefectural government, an affiliate corporation (Environment Create Center), municipalities of cities, towns, and villages, 250 business operators (companies are widespread from major core enterprises in the prefecture to local venture businesses), prefectural residents, and NPOs, and it set the evaluation index as the creation of new recycling businesses. The Conference is also active in cooperating with academia and offers matching of adequate teachers or universities according to respective research subjects in broad categories, including material engineering, environment engineering, and chemical fields. They were involved in voluntary civil activities during the earthquake disaster. This time, under the policy of accelerating movements in recycling, they are now involved in holding workshops for commercialization, seeds-needs forums, exhibitions of environment businesses, and making presentations in other exhibitions as part of their activities to support in the opening up of sales channels so that the Eco-Town Project can create further recycling industries. As of September 2006, we set up five major subjects to support commercialization (see the reference materials). Besides the major facilities, we are also running projects for establishing workshops."

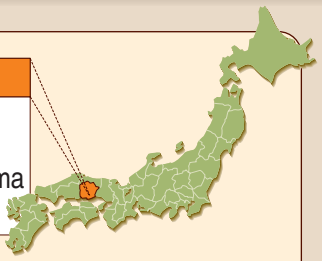
Eco-Town Project Case Introductions

Okayama Eco-Town Plan

(Approved in 2004)

Turning the chemicals industrial complex to the environmental type zero-emission industrial complex by making use of local waste resources and state-of-the-art technologies

Municipality		Target Region
Okayama Prefecture Recycle-Oriented Society Promotion Division, Department of Health and Quality Life	**2-4-6 Uchisange, Okayama City, Okayama Prefecture 800-8570** **Phone: 81-86-226-7306** **URL: http://www.web.pref.okayama.jp/**	Whole area of Okayama Prefecture (Priority Area: Mizushima Industrial Complex)



Based on Mizushima Industrial Complex in the waterfront area, locations of versatile and distinctive local industries in the inland area, and further regarding potentials of the prefecture as represented by transportation/logistics functions as a cross-point of the Chugoku and the Shikoku districts, as well as the infrastructures for human resource development, this plan aims to achieve goals of the superior plans toward the formation of a recycle-oriented society in the prefecture, resolve problems related to waste treatment, and further create new environmental businesses of the area-recycling type, which simultaneously achieves preservation of the environment and economic efficiency.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

In Okayama Prefecture, textile industries are located in the southern part of the prefecture, businesses related to iron manufacturing in the eastern part, lime industries in the western part, and timber industries in the middle and the northern parts, and many of the local industries have been long established. On the other hand, in the waterfront area of Kurashiki City, they have Mizushima Industrial Complex, which boasts one of the largest industrial complexes in Japan, in which basic-material type industries, such as iron and steel and petro-chemical industries, and large enterprises with high technologies or highly advanced production technologies are located. The Okayama Eco-Town Plan is built as a plan with a pioneer spirit in which hardware aspects as represented by utilization of highly advanced technologies in the Mizushima area and software aspects in which capabilities of private sectors are utilized are mixed. The plan was drafted as a basic project, which was supposed to be an action plan of the Okayama Prefecture Ordinance for Promotion to Form Recycle-Oriented Society (December 2001), which was based on the Okayama Prefecture Basic Environmental Plan (Ecovision 2010: Established in March 1998 and Revised in March 2003). They are moving forward with the plan under the theme of building a town where advanced environment and the economy move forward in harmony, while assuming environmental businesses as the base of local industries.

With respect to the hardware project, there is an attempt to create new environment businesses by utilizing idle sites of the Mizushima Industrial Complex, with wastes and recyclable resources, which are problems needing to be resolved in the area, used as raw materials. This project is based on technologies, research, and cooperation offered by enterprises located in the industrial complex, aiming for further development of resource-matching and zero emission approaches. Furthermore, the prefectural government independently set up the Okayama Prefecture Mini Eco-Town Project to offer subsidies for assisting advanced case examples implemented by enterprises. The software projects also include remarkable cases, and the prefectural government undertakes environment education lead by private enterprises, matching systems implemented by business operators on the Internet, and other programs.

Voice of the Municipality

"Out of the amount of industrial waste generated in the prefecture, 50% or more of the amount is from the Kurashiki area where the Mizushima Industrial Complex is located. The industrial complex was also anxious about wood-based wastes, and we faced the problem of recycling those wastes. We have been executing construction of bases in which such wastes can be recycled for use by utilizing idle sites in the industrial complex through joint work with the private vitality of enterprises located in the industrial complex.

As for the aspects of the software project, we are executing on the Internet matching of business operators who offer recyclable resources and those who use them (being practiced by Incorporated Foundation Okayama Prefectural Corporation of Environmental Conservation). Furthermore, we are working on cooperation in matching with other Eco-Towns located in the periphery of the Seto Inland Sea (Green Net). There are approaches among citizens to exchange domestic disused articles on the Internet (Motte Net)."

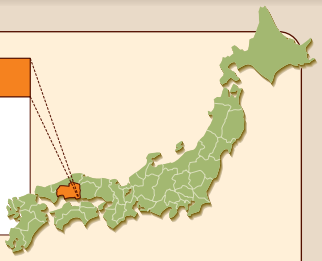
URL: http://www.kankyo.or.jp

Eco-Town Project Case Introductions

Bingo Eco-Town Plan
(Approved in 2000)

Advancing studies and development for recycling as a core industrial base in the Setouchi and the Sanyo areas, thus aiming for cooperation among areas and among industries

Municipality		Target Region
Department of the Environment, Okayama Prefectural Government Recycle-Oriented Society Promotion Office, Bureau of Environmental Protection	**10-52 Motomachi, Naka-ku, Hiroshima City, Hiroshima Prefecture 730-8511** **Phone: 81-82-513-2951** **URL: http://www.pref.hiroshima.lg.jp/**	Bingo area of Hiroshima Prefecture



This plan aims to promote, in the Bingo area, which is one of the core industrial bases in coastal areas of the Seto Inland Sea, building an area to reduce the environmental loads, while ensuring cooperation among areas and among industries, by concentrating advanced recycling facilities, advancing research, and developing recycling technologies.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

In Hiroshima Prefecture, which plays the role as the industrial center connecting the Seto Inland Sea and the Sanyo area, the Hiroshima Zero emissions Promotion Workshop was established in 1998 when they had not yet made an entry to the Eco-Town Project. In the Workshop, they repeated investigation on advanced examples in the prefecture and formulated the Eco-Town Plan as a project to be brought into shape.

The Bingo area consists of four cities and two towns. The area has many Only One and Number One enterprises, and the technical capabilities of such enterprises have been highly evaluated. One of the main projects of the Bingo Eco-Town Plan is the theme to vitalize the Mino-oki area, which is a landfill site located in Fukuyama City. In this area, JFE built a facility to turn waste plastics into raw materials for blast furnaces in 2000, which means that a base for recycling operations, including facilities for waste power generation and ash-melting, as well as recycling facilities for plastic trays, had been established already. Under such circumstances, they selected the area as a model area for the promotion of building a recycle-oriented society. As a logistics hub, they promoted vitalization by establishing an international container terminal. Furthermore, small and medium enterprises related to textile businesses were built side-by-side a long time ago in the downtown area, thus enjoying a long history of manufacturing. They aim to make this area to be a comprehensive area offering environmental solutions by achieving economic synergy effects by utilizing the Eco-Town, the terminal, and manufacturing capabilities.

Voice of the Municipality

"The Bingo Eco-Town Plan is a project that focuses a facility to turn waste plastics into raw materials for blast furnaces, a CFC-related facility, an RDF power generation/ash-melting facility, and a food-tray recycling facility. We have been commercializing these projects in the Mino-oki area in Fukuyama City.

In addition to the subsidized hardware facilities of the Eco-Town, we concentrated environment-related industries, taking the opportunity that the implementation plans of the Bingo Eco-Town Plan were established in March 2002, and we advertised for project teams of environment-related industries, intended for enterprises from throughout the prefecture. So far, 48 projects were nominated, and 8 projects were commercialized as of the end of the year 2006.

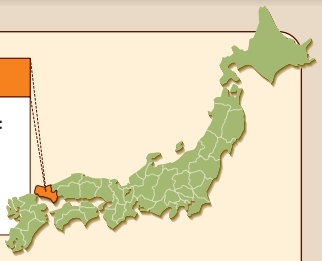
Promotion of the Eco-Town projects were examined by the Bureau of Public Enterprises (which was responsible for industrial fields, particularly for use and utilization of sites) in 1997 in the form that precedes the environmental fields. Thereafter, partly because it was necessary to deal with broadening of operations for municipal solid wastes under the background of dioxins issues, the project was promoted by departments related to the environment. We think the future problems will be development toward recycling of versatile recyclable resources. Another problem is that we have not yet achieved sufficient recycling systems within the area."

Eco-Town Project Case Introductions

Yamaguchi Eco-Town Plan
(Approved in 2001)

Building a new recycling system based on existing basic material-type industries, including cement industries, chemical industries, and so on

Municipality		Target Region
Yamaguchi Prefecture Waste Recycle Management Division, Environmental and Community Affairs Department	**1-1 Taki-machi, Yamaguchi City, Yamaguchi Prefecture 753-8501** **Phone: 81-83-933-2992** **URL: http://www.pref.yamaguchi.lg.jp/**	Whole area of Yamaguchi Prefecture



Concerning industries in Yamaguchi prefecture, percentages of basic material-type industries and energy-related industries show higher figures, and at these industries, accumulation of technologies and improvement of infrastructures have made progress in environment-related fields.

This plan aims to build an environment-harmonious type of area focusing on building a new raw material recycling system, while making existing base material-type industries, such as chemistry and cement industries, as its core industries.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

In Yamaguchi Prefecture, which plays the role of connecting the Kyushu, Sanin, and Sanyo districts, industries have been developing while making use of its overland routes and water routes. For the secondary industries, the chemical and cement industries in the Shunan Industrial area have been the key players. The Yamaguchi Eco-Town Plan is featured in the aspect that they are going to build new raw material recycling on the premise of such existing basic material-type industries. They formulated the Eco-Town Plan as a plan to execute the promotion of projects for building an advanced and unique environment-conscious type of town where effects to reduce environmental loads are expected.

The core projects include an effort that recycles incinerated ash discharged from municipal solid waste disposal facilities of municipalities in the prefecture into cement feedstock after carrying out de-dioxination and de-chlorination using water (see the body copy), as well as recycling of waste plastics into chemical feedstock through gasification and recycling of PET bottles into polyester feedstock. Either waste is recycled into feedstock for basic material-type industries located in peripheral prefectures or in Yamaguchi prefecture. The key point is that wastes are effectively used by existing industries for achieving highly feasible and consistent recycling.

Voice of the Municipality

"For the Eco-Town Plan, we formulated the Yamaguchi Zero Emission Plan aiming for "creating a zero-garbage society" as declared in our policies for strengthening the prefecture, Yamaguchi Future Design 21 and Yamaguchi Environment Creation Plan, and as we took actions, we worked to realize the plan as a unique project with pioneer characteristics.

We examined the project to recycle incineration ash into cement feedstock because the cement industry originally had a base receiving versatile wastes for recycling them into feedstock. Almost all municipalities in the prefecture provided their cooperation, and we are tackling the project throughout the prefecture. We procure wastes of a little less than 30,000 tons within the prefecture and the remaining portion from peripheral prefectures. For projects regarding recycling waste plastics into chemical industry feedstock and recycling of PET bottles into polyester feedstock, which are other hardware projects of the Eco-Town Plan, we mainly procure feedstock from throughout the nation pursuant to the system as stipulated by the Containers and Packaging Recycling Law, but a present problem to secure a sufficient amount exists."

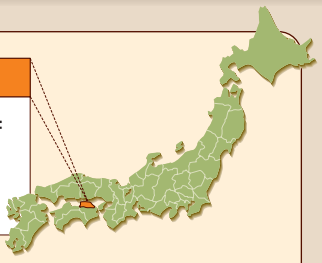
Eco-Town Project Case Introductions

Eco-Island Naoshima Plan

(Approved in 2002)

Rebuilding the island to an Eco-Island using the waste disposal problem as a turning point New town building to be developed focusing on the aspects of environment and tourism, which is implemented by local enterprises and town residents in an integrated manner

Municipality		Target Region
Kagawa Prefecture Waste Recycle Management Division, Environmental and Forestry Affairs Department Naoshima Town Naoshima Town Environment and Waterworks Division	**4-1-10 Ban-cho, Takamatsu City, Kagawa Prefecture 760-8570** **Phone: 81-87-832-3228** **URL: http://www.pref.kagawa.jp/**	Whole area of Naoshima Town



Naoshima Island has the beautiful natural landscape of the Seto Inland Sea. In addition, it has not only schools, but also cultural/social-education facilities, such as the Naoshima Culture Village, as well as a factory area where Asia's largest gold-refining factory and other factories are located. It is famous as an island where nature, culture, and industries are harmonized. The Eco-Town Plan aims to promote building of a new town with concerted efforts of the prefectural government, the town, residents, private organizations, and enterprises by making use of such characteristics and developing advanced environment industries in which existing industrial infrastructures, such as refining facilities, technologies, and human resources, and positioning Naoshima Town as the place for environmental education and studies of the 21st century based on related facilities of private sectors and the prefectural government.

In addition, the recycling projects to be developed under the Plan are designed to contribute to smooth implementation of the treatment project of wastes in Teshima Island.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

Naoshima is an island 16 km around in the Seto Island Sea, located 13 km to the north of Takamatsu City. It is located 3 km offshore facing Tamano City (Okayama Prefecture), and lifeline supplies are delivered from the Okayama prefecture side. The whole island is designed to be an Eco-Town, which is the only Eco-Town in Japan. Being triggered by the Teshima Island issue, the Kagawa prefectural government designated the formation of a recycle-oriented society as one of their major policies.

Concerning the Teshima Island issue, the Kagawa prefectural government was supposed to work on treatment of wastes dumped on the island following the intermediate agreement of arbitration in July 1997. Initially, they considered installation of a treatment plant on Teshima Island; however, partly because the plant can be effectively used after completion of treatment, or existing fuel supply facilities can also be used, they examined and discussed establishment of a waste intermediate treatment facility on the premises of Naoshima Refining Works of Mitsubishi Material Corporation, and in March 2000, Naoshima Town expressed reception of the facility. Taking the opportunity to establish the intermediate treatment facility, they designated Naoshima Town as a model area for a recycle-oriented society and created the Eco-Town Plan jointly with Naoshima Town. One of the four conditions presented by Naoshima Town for accepting the treatment facility is to vitalize the town, which means that they considered satisfying both of the hardware and software projects as an Eco-Town.

For the hardware project, waste treatment is conducted on Teshima Island, and melting fly ash generated therein is treated in the melting fly ash recycling facility of Mitsubishi Material, which is one of the Eco-Town facilities, for recycling the waste into refining feedstock. Naoshima Refining Works of Mitsubishi Material accepted the process as an approach toward diversification of business, departing from dependence only on the copper refining business, and they participated in the Eco-Town Plan as they determined the approach would contribute to vitalization of enterprises and the town, as well as the formation of a recycle-oriented society in the prefecture. The Eco-Island formation has been promoted, while the hardware aspects are handled by the local enterprise Naoshima Refining Works of Mitsubishi Material and the software aspects are handled by the town government and residents. In all aspects, this is a quite rare case of an Eco-Town in Japan in the sense that the whole island is involved for the Eco-Town.

Voice of the Municipality

"One of the priority promotion plans (coexistence with nature, sustainable development, and creation of the vital Kagawa prefecture) under the New Century Basic Project (Creation of Greenness, Relief and Festivity – Formulated in 2000) was the formation of a recycle-oriented society. Being triggered by the Teshima Island issue, formation of a recycle-oriented society was one of the important pillars of the policy used by the Kagawa prefectural government.

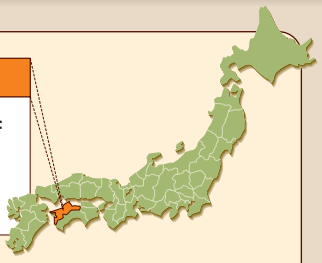
The major project is to treat melting fly ash that is generated in the waste intermediate treatment facility (a prefectural intermediate treatment facility constructed on the premise of Naoshima Refining Works) on Teshima Island to recover metals. After confirming effective use of melting fly ash in the Technology Examination Committee, we proposed a facility to treat melting fly ash. Originally, Naoshima Island was developed along with Mitsubishi Material (introduced in Taisho Era), and the company is fundamental for vitalization of the town. Therefore, with the condition that town residents understand the plan, we formulated the Eco-Island Naoshima Plan."

Eco-Town Project Case Introductions

Ehime Eco-Land Plan
(Approved in 2006)

Advancing to an environmentally advanced prefecture as a town of paper manufacturing and an Eco-Town
Working on effective use of wastes that would be a problem for local enterprises

Municipality		Target Region
Ehime Prefecture Waste Recycle Management Division, Environmental Bureau Citizens & Environmental Affairs Department	**4-4-2 Ichiban-cho, Matsuyama City, Ehime Prefecture 790-8570** **Phone: 81-89-912-2360** **URL: http://www.pref.ehime.jp/**	Whole area of Ehime Prefecture



This Plan aims toward Zero Emission of incineration ash of paper sludge by working on projects to reduce emission of paper sludge by manufacturing recyclable filling materials (used for enhancing smoothness, whiteness, etc., of paper) in the recycled pulp manufacturing process, while aiming for an environmentally advanced prefecture and building of a recycle-oriented society by promoting reduction in waste, recycling, and adequate treatment.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

Aiming for a "refreshing, environmentally advanced prefecture," the Ehime prefectural government formulated the Ehime Recycle-Oriented Society Promotion Plan 2001 and has been developing various policies and measures for building a recycle-oriented society. The Eco-Town Plan, which is part of such activities, aims to develop recycling businesses for achieving Zero Emission that reflects the actual situation of respective areas throughout Ehime prefecture and to develop Ehime prefecture under the project Ehime Eco-Land, which is suitable to the naming of an environmentally advanced prefecture.

What they tackled as an Eco-Town Project was to achieve effective use of waste from the paper manufacturing industry, which was the backbone industry of the prefecture, and also incineration ash of paper sludge that occupies a large portion of such wastes. For the area of Ehime prefecture, forest area occupies 71% of the total area. Shikoku-Chuo City, located at the eastern end of Ehime prefecture, is one of the largest production areas of paper and pulp in Japan. Regarding the shipment value of manufactured goods according to business types in the prefecture, paper and pulp are ranked in the number-one position, and the City is known as the "Town of Paper." An important issue in the prefecture's recycle-oriented society building policy is recycling of wastes (the recycling rate of industrial wastes was lower than the national average), and effective use of incineration ash of paper sludge is an urgent issue, in particular.

Under such circumstance, the paper manufacturing industry started to share problems under the leadership of the Ehime Prefectural Paper and Pulp Industrial Association to establish the Ehime prefecture's Eco-Town Plan, also referred to as Ehime, The Town of Paper, Eco-Town Project, Paper Sludge Incineration Ash Zero Emission, and various approaches were implemented for recycling of paper sludge.

Voice of the Municipality

"The largest problem of measures concerning wastes in Ehime Prefecture where industrial waste treatment was behind other prefectures was how paper waste should be treated. Then, we started working on the issue together with the paper manufacturing industry. For the Ehime Eco-Land Project, the establishment of other projects, including facilities for recycling of PET bottles, facilities for recycling of waste food oils and glass containers, and facilities for recycling of slug, is moving ahead in various areas in the prefecture. In addition, we provide support or subsidies for cultivating new industries, even though their size is small, by providing financing systems for environmental industries or through the development of new products and new technologies realized under industry-government-academia cooperation, and environmental industries are adopted as part of them.

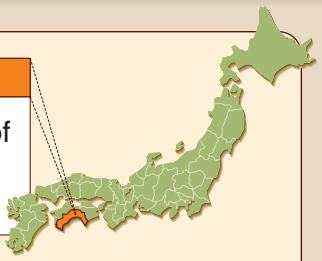
Since it is important to make the products that are finalized as results of such activities known among citizens in general and used by them, we advertise the products through various activities."

Eco-Town Project Case Introductions

Eco-Town Kochi City – Business Plan
(Approved in 2000)

Advancing recycling of wastes, which is going to be a challenge, by enhancing reconciliation with local residents in areas having an excellent natural environment of mountains and sea

Municipality		Target Region
Kochi City Garbage Reduction Promotion Division, Environmental Department	Annex to Kochi City Waste Disposal Center 6459 Nagahama, Kochi City, Kochi Prefecture 781-0270 Phone: 81-88-841-5374 URL: http://www.city.kochi.kochi.jp	Coastal area of Urado Bay, Kochi City



This plan aims to promote environment-conscious town-building through cooperation among residents, enterprises, and the administration in the intended coastal area of Urado Bay, where an excellent natural environment remains intact and major local industries are located.

More specifically, effective use of the existing timber industry complex is promoted, and the Eco-Industrial complex where recycle-related facilities are intensively and schematically located is constructed to perform recycling businesses concerning waste timbers, foamed polystyrene, and waste plastics, while achieving drastic improvement in recycling rate and enhancement of Zero Emission in the area through cooperation with local industries and thorough execution of separate collection, thus forming a resource recycling society system.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

Kochi Prefecture is separated from other prefectures by the Shikoku Mountains located to the north of the prefecture. Kochi City faces the Pacific Ocean with the Mountains at its back. The Urado Bay extends into the central part of the city after passing under the Urado Bridge that connects Katsura Beach and the downtown. Along the coastal area of Urado Bay, not only fishing ports, but also markets, factories, disposal stations, and local enterprises are located. The Eco-Town Kochi City is intended for a stretch of areas along Urado Bay, and the center is the Eco-Industrial Complex, which is built on the landfill site inside the bay. In Kochi prefecture, over 70% of industrial waste emissions was discharged from the central district of the prefecture around Kochi City. After taking surveys, they established the Kochi City Eco-Town Project Promotion Committee consisting of academic experts, citizens, business operators, related organizations, etc., to implement more specific feasibility studies according to fields. In 2000, Kochi City established the Environmental Department. The Eco-Town Promotion Office was established in the Environmental Policy Division of the same department, focusing not on the development of industries but on waste treatment, and explanatory meetings to the Misato Town Joint Neighborhood Association and Shinchiku Town Neighborhood Association, in which the Eco-Town was to be located, as well as to 24 neighborhood associations in peripheral areas, the Timber Industry Complex Federation of Niida were started.

In December, the Eco-Town Kochi City Business Plan was nationally approved. The Eco-Town was determined to be located in the restricted industrial zone in Misato area. Because a timber complex already existed in the zone since 1955, and because the zone was a base of port and harbor logistics, it was considered to be an adequate site for cooperation and waste recycling operations within the area; however, the Misato area had already had a final waste disposal site, a plastics volume reduction factory, and a relaying facility of night soil disposal, and they said that stubborn opposition movements occurred among local residents. Following persistent negotiations with residents, location of the Eco-Town facilities was approved on condition.

Voice of the Municipality

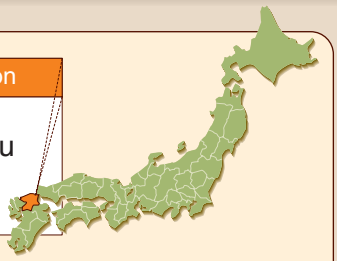
"First of all, the largest problem was the recycling business of leftover foods. In the past, the area had a history that residents suffered from odor that floated out of disposal factories of fishmeal. Therefore, for the project, negotiations started first by excluding such fishmeal. As a result, final agreement was reached for approval in the way that leftover foods are treated in a different place, and in the industrial complex, projects are limited to those of recycling foamed polystyrene and comminuting wasted wood chips. Concerning the wood comminuting project, we needed to hold explanatory meetings, and comminuting work is conducted within the factory building to avoid influence on neighboring residents. For the recycling project of foamed polystyrene, we have taken appropriate measures concerning odors. At present, we do not hear any special complaints. Kochi City is an area where people originally had advanced and high awareness in terms of separate collection of garbage; however, it took a very long time before we could obtain understanding from the citizens regarding the Eco-Town, and we had to split the site we scheduled during the initial stage."

Eco-Town Project Case Introductions

Kitakyushu Eco-Town Plan
(Approved in 1997)

The most advanced type of Eco-Town that continues to expand toward Eco-Industrial Complex and Zero Emission

Municipality		Target Region
Kitakyushu City Environmental Industries Promotion Office, Environment & Economy Department, Environment Bureau	**1-1 Jonai, Kokura-Kita-ku, Kitakyushu City, Fukuoka Prefecture 803-8501** **Phone: 81-93-582-2630** **URL: http://www.kitaq-ecotown.com**	Kitakyushu City



The Kitakyushu City government has been developing various projects pursuant to the Kitakyushu Eco-Town Plan, which was approved in July 1997; however, since most of the projects are being almost completed before the target fiscal year, they formulated the Phase 2 Kitakyushu Eco-Town Project Plan in August 2002.

With the Phase 2 Plan, they aim to create the international base for resource recycling and environment industries in Asia by further expanding past approaches, including not only resource recycling projects but also development of local activities to achieve a sustainable society, thus enhancing concentration of new industries and technologies. Furthermore, beginning October 2004, they are now working toward the creation of an environment-conscious town by expanding the target area to the whole areas of the city and effectively utilizing existing infrastructures, etc.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

Since activation of production of governmental Yahata Ironworks in 1901, Kitakyushu City has a history of 100 years and over as a town of manufacturing. They have been developing Eco-Town projects by overcoming environmental pollution issues and by making use of human resources and technologies that were cultivated during that process. We often hear a voice saying, “When we speak about Eco-Town, it’s Kitakyushu.” For these reasons, we cannot over-emphasize the facts: they execute development of environmental industries dynamically focusing on the three aspects of education/fundamental studies, technology/experimental studies, and commercialization; they have a definite administration system including the relevant division system enabling minute actions according to respective business operators; and the history that local business operators who played the role of arteries created businesses that play the part of veins through cooperation among the business operators by making use of the infrastructure as an industrial town. In recent years, aspects of logistics have been enhanced, including the New Kitakyushu Airport, the Hibiki Container Terminal, and the Eastern Kyushu Expressway. Thus, the configuration that concentration of businesses calls for another concentration is being formed, which can be represented by the fact, for example, that an enterprise located in Tokyo made entry to the city as their operating base in the western part of Japan. The Eco-Town Plan further aims toward the achievement of Zero Emission and the realization of a comprehensive environmental industrial complex, and is continuing to progress accordingly at this time.

Voice of the Municipality

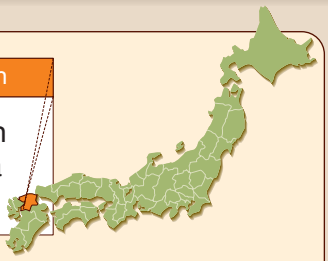
“We think the Kitakyushu Eco-Town features that it not only aimed for mere commercialization, but it also established a facility for experimental studies for the first time in Japan. The strength would be that the Eco-Town can deal with various issues in a comprehensive manner based on the three pillars: an academic research city; an experimental study area; and commercialization capabilities. The city administration continued to offer support from the aspect of what the city administration can do with the projects. For example, one year before the enforcement of the Home Appliance Recycling Law: we established connections among home appliance manufacturers concerning investment to factories; we encouraged major areas in Kyushu to provide cooperation for the separate collection of PET bottles; and we established a separation system when implementing the fluorescent tube recycling project and made an appeal to citizens, etc. In addition, information disclosure is an important role of the city administration to give indirect support to the projects. We played the role of a contact window (Eco-Town Center) for dealing with applications for inspection tours and visits to facilities by about 80 thousand people a year. In this way, we are working as an entity that connects the environment and industries, while achieving a balance between requests of parties to observe and those to be observed. The project will not be completed when factories are simply introduced. We assigned persons in charge for each project, and they give support in advancing various procedures and introduce matching of wastes through periodically implementing surveys.”

Eco-Town Project Case Introductions

Omuta Eco Town
(Approved in 1998)

In search of the key industry that replaces the coal industry
A lodgment type of Eco-Town for which citizens' understanding is being nurtured

Municipality		Target Region
Omuta City, Fukuoka Prefecture Industry Promotion Division, Industrial Economic Affairs Department	**2-3 Ariake-cho, Omuta City, Fukuoka Prefecture 836-8666 URL: http://www.city.omuta.fukuoka.jp**	Area within the Omuta Eco-Town



The Plan aims to construct a recycling industry complex on the sites not so much used in the waterfront area of Omuta City, for recycling of coal ash, recycling useful metals, and recycling waste from the agricultural and fishery industries, while promoting utilization of related technologies that have been accumulated in the area mainly by Mitsui-Miike Coal Mine (closed on March 30, 1997) pollution prevention technologies. Furthermore, the Plan aims to form a network for collection of RDF (Refuse Derived Fuel) in the rim areas of the Sea of Ariake through wide-range cooperation beyond boarders of prefectures, focusing on an RDF power generation facility that was established as the Plan's core project.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

Omuta City is located at the southernmost part of Fukoka Prefecture, where the city borders Kumamoto Prefecture. The city prospered thanks to Mitsui-Miike Coal Mine, but the mine was closed in March 1997. Under such circumstances that weakening of the local economy was concerned, approaches to the Eco-Town have been promoted.

The Omuta City government established the Environmental Recycling Industry Promotion Office in July 1997 to develop industries after closure of the coal mine. In this flow, they formulated the Eco-Town Plan to realize approaches to environmental recycling industries, examination on which had started before the closure of the mine, and the Plan was approved in July 1998 and continued up to the present date.

One of the features of the Eco-Town is the RDF power generation project, which they are working on for achieving wide-area environmental preservation. So far, Omuta City has been dealing with administration of waste disposal with Arao City in Kumamoto Prefecture by establishing Omuta-Arao Waste Disposal Facility Association (partly with its clerical work association); however, for the RDF power generation project, 28 municipalities in Fukuoka and Kumamoto prefectures (19 municipalities due to consolidation of municipalities), including Omuta City and Arao City, participated.

Furthermore, what they are tackling in the Omuta Eco-Town Project is to encourage local residents to participate in the project. In order to start the Eco-Town Project, they held as many as 200 to 300 small and large explanatory meetings. Besides this, they organized the Eco-Town Local Area Environment Investigation Committee as a workshop of the Omuta City Environmental Recycling Industry Promotion Conference organized in 2004 to execute activities such as holding inspection tours to enterprises located in the Eco-Town and holding opinion-exchange meetings for deepening understanding of the Eco-Town.

It should also be noted that they are working positively on dispatching information by holding exhibitions related to environmental recycling at Omuta City Eco Thank Center located in the Eco-Town.

Voice of the Municipality

"In Omuta City, aiming for the establishment of environmental recycling industries as its backbone industries replacing the coal mining industry, we constructed an Eco-Town as its industrial policy and measures by utilizing vast sites not used so much in the waterfront area (former coal washing yard and lumbar yard). We sold or rented the site in 27 small and large lots, and presently, we are working on the introduction of enterprises in the field of environmental recycling to secure employment opportunities.

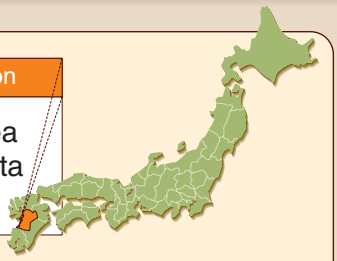
The Kyushu Shinkansen was opened, and construction of traffic infrastructures, including improvement of Miike Port and the coastal road along the Sea of Ariake (local high-standard highway), which starts at Miike Port, is underway. Thus, attractiveness of the project environment has further been improved. We will advertise such points and work positively on introduction of enterprises in the future."

Eco-Town Project Case Introductions

Minamata Eco-Town Plan
(Approved in 2001)

From a pollution-plagued city to an environmental city: Aiming for regeneration as an environmental model city by gaining strength from high awareness of citizens about the environment

Municipality		Target Region
Minamata City, Kumamoto Prefecture Commerce, Industry and Tourism Promotion Office, Industry Creation General Office, Industry Construction Department	**1-1-1 Jinnai, Minamata City, Kumamoto Prefecture 867-8555** **Phone: 81-966-61-1628** **URL: http://www.minamatacity.jp/**	Whole area of Minamata City



After having experienced the industrial pollution known as Minamata disease, Minamata City declared the Model Environmental City Development in 1992, and thus, they have high awareness about the environment. The Minamata Eco-Town Plan aims to develop a recycle-oriented town through concerted efforts by citizens, enterprises, and the administration by organically associating existing approaches, such as collection of recyclable garbage by means of separate collection of as many as 22 kinds of garbage with the development of environment-related industries in the area.

Profile and Characteristics of Eco-Town Project: Past Approaches Taken by Municipalities in Eco-Town Projects

The Minamata disease, which was so famous as industrial pollution that it is unprecedented in the world, imposed significant effects not only on the regional environment but also on relations among residents. Citizens of Minamata City squarely face Minamata disease, and citizens, enterprises, and the administration are working on environmental regeneration with concerted efforts. “For the reason that we live in Minamata, we are concerned with the environment.” Regeneration of Minamata as an environmental city has a significant meaning. Around the end of the Showa era, when reclamation of Minamata Bay was completed, movement toward area recovery in Minamata City started. They made various approaches, including separation of garbage into 22 types and holding of such events as the Coalition of Local Government for Environmental Initiative, the International Conference on Mercury, the Millennium International Children's Conference on the Environment, the Environmental Minamata Award, Women’s Liaison Conference for Reduction in Waste, Family and School Versions of ISO at Residents’ Level, Eco-Shop Certification System, and Eco Tours. Thus, they have been executing activities for regeneration mainly lead by citizens under the concept of “Model Environmental City = Minamata, the City of Environment.”

In the course of time, how such approaches for environment preservation should also be reflected on the local economy became an issue. As a means for connecting environmental activities and the local economy, an application for an Eco-Town was made. The feature of the Minamata Eco-Town Plan is to achieve a community- and citizen-based type and small-city type of Eco-Town where citizens can have the will to participate and where garbage that they separate is recycled for resources. The Plan sets out to implement the “self-sustaining type of local economy system” as an ideal system, in which civic activities, such as tourism, agriculture, forestry and fishery industries, commerce and industry, and education and culture, in addition to recycling of goods, while developing industrial activities with civic awareness on environmental and new industrial technologies, work closely together. The intended area is the whole area of the city, but the Minamata Industrial Complex is functioning as the General Recycle Center.

Voice of the Municipality

“To recover ties of solidarity among citizens that had disappeared due to Minamata Disease (referred to as the “movement for casting off moorings”) and to recover the area and regenerate it as an environmental city, we have been developing environmental preservation activities by establishing an executive committee organization, the members of which mainly comprise citizens. We thought it necessary that we indicate the meaning that the town having a negative legacy should execute environmental activities, and we enhanced our approach toward a further advanced and specialized environment so that we can continue to dispatch lessons that we learned from Minamata disease.

For the Eco-Town, we set out to implement reuse of bottles as its core project, but the Eco-Towns that were built under the theme of reuse could be a unique case among many Eco-Town plans. In the Minamata Industrial Complex, which functions as a main facility, the Eco-Town Conference was also established. We hear movements have already been started for jointly tackling various problems by fellow partners of environmental businesses, concerning challenges, incoming and outgoing wastes, employee training, emission, energy, costs, and other issues. Since citizens of Minamata City had experienced approaches for garbage separation into 22 types and other environmental activities, they are cooperative with our approaches concerning the Eco-Town Plan.”


ECO-TOWN
Effective utilization,
Recycling,
Environment conscious,
Usage of resources,
recycle-based society