20% Club for Sustainable Cities Newsletter

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Contents

On the 26th of October, the workshop to discuss the results of the three- year efforts of member municipalities was held at the City of Yokohama.

20% Club Hold First Workshop in Yokohama:

Steps toward Our Sustainable Cities

January 2000 marked the 20% Club for Sustainable Cities' third anniversary.

The Club was proposed at the World Conference on Local Initiatives for Sustainable Cities (November, 1995) held in Kanagawa Prefecture, and was officially inaugurated in January of 1997. On the 26th of October this year, the workshop to discuss the results of the three- year efforts of member municipalities was held at the City of Yokohama.

The workshop titled "Steps toward Our Sustainable Cities" was attended by: the mayors or representatives of cities such as Matale, Sri Lanka; Gold Coast, Australia; Shenyang, China; Pusan Metropolitan City, and Kyonggi-do, Korea. From inside Japan, 50 representatives from 22 member and non-member municipalities attended the workshop.

In addition to introducing each member municipality's effort, the aim of this workshop was to discuss how to advance the 20% Club's basic theory that policy effectiveness will be enhanced by setting numerical targets. Community involvement, partnership-building with other sectors, and measurement of progress toward each municipality's objectives were discussed.

Assistant Prof. Hideyuki Takahashi from Iwate Prefectural University and Mr. Takahiro Nakaguchi, Director of the Research Institute for Local Initiative of Environmental Policies (RILIEP) were invited as guest speakers.

Prof. Takahashi said that for implementation of policy at the municipal level, it is necessary to build partnerships with each sector (environmental NGOs, businesses, and community-based organizations) at each stage (planning, implementation, and evaluation). He stressed that disclosing information and building a relationship of trust between the administration and citizens is indispensable. His suggestion of an administration-citizen collaboration on writing draft legislation caught people's attention.

Since there is pressure for municipalities to start

working on shared issues such as global environmental problems, and the progress-management of policy, Mr. Nakaguchi presented the efforts of the Coalition of Local Government for Environmental Initiative to set shared targets and evaluate results by shared indicators. The Coalition of Local Government for Environmental Initiative sets nine shared targets ranging from the global environment (indicator: total CO_2 emissions) to community involvement (indicator: the number of citizens that join partnership-type organizations). Progress is annually reported to the Coalition Secretariat, and by included on the Annual Report, becomes a component of progress management.

- Seven of the domestic and overseas organizations presented examples of municipal efforts on themes such as: improving environmental management systems, citizen-participation, target-setting, and the reviewing process.
- Another aim of this workshop was to discuss future directions for the 20% Club. The results of the questionnaire given to member municipalities preceding the workshop were presented. (See page 24)
- Current member services such as the publication of the newsletter, case studies, information dissemination through the homepage were given high marks by many participants, but many also thought that the 20% Club needs to further its activities. Along with giving awards for excellent performance by members, establishing shared targets and evaluation methods, and holding a symposium to mark the fifth anniversary, members voiced the need to explore ways to reflect the results of the 20% Club activities in the Rio+10 Conference expected to be held in 2002.
- The Secretariat hopes to collaborate with the City Inspiration Initiative by the United Nations University, and actively introduce our members' frontline efforts. This project, which was explained at the workshop by Dr. Hari Srnivas, Programme Associate, Environment and Sustainable Development, the United Nations University, aims to provide succinct information on examples of advanced environmental management in Japanese municipalities. The efforts to build an environmental model-city in Minamata had already been introduced.
- The Secretariat would like to expand the 20% Club's membership (current membership:60), and hopes to introduce more member municipalities' efforts as model cases.
- We also hope to strengthen collaboration with organizations such as the United Nations University, International Council for Local Environmental Initiatives (ICLEI), and the Coalition of Local Government for Environmental Initiative, and exchange information and knowledge on shared indicators to gain efficiency in environmental policy and partnership-building. (Secretariat)

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Introduction:

Approaches for establishing partnerships in each phase of policy planning, implementation, and review

Hideyuki TAKAHASHI, Faculty of Policy Studies, Iwate Prefectural University

1. The Need for and the Difficulties in Building Partnership

It is important for the citizens, the local government, and business operators to work together in promoting environmental activities in municipalities. For example, the Citizens' Environmental Council in Toyonaka City participated in the formulation of the local Agenda 21, and the Waste Reduction Women' Liaison Council of Minamata City played a leading role in abolishing the use of food trays by organizing a campaign, conducting meetings with major supermarkets, and participating in the signing of an agreement by the mayor and the chairman of the municipal assembly. These are some of the success stories of the partnership between the three parties.

Government authorities shall heed the advice of citizen groups even though they may be known for being "noisy" or "critical of public policies", and shall also understand that these groups have a high chance of becoming their devoted partners. There is little meaning in forming partnership only with those easy to deal with. In order to win the trust of the people or parties with severe opinions, the government must make improvement to the present administrative system or change the way environmental policies are handled today.

2. Preconditions for Building Partnership

Making information accessible to the public and facilitating citizen participation are the preconditions for forming partnership. The government must build up a trusting relationship

with the local residents and environmental NGOs so that they will realize opposition alone cannot bring result. The process for the people to realize that the government is making improvement and for all the parties to narrow their differences harbors great meaning.

The government shall not wait for the citizens to initiate action. Environmental officials must reach out to the people because the government has the duty to coordinate organizations at the initial stage of activities by offering environmental seminars, environmental leader training, etc.

3. Building Partnership at the Policy-making Stage

Citizen participation in formulating local environmental legislation

In recent years, many local governments have invited citizens to participate in the formulation of basic environment ordinances from the beginning. For citizens to get involved from this planning stage will help lay the groundwork for partnership later on.

The most common practice today is for the local government to invite citizens to participate through public advertisements or recommendations of districts, and to set up environmental citizen councils or similar organizations to review policies.

However, from a different angle, it is also possible for the citizens to take initiative in setting up their own organizations, or for the government to support citizens in making policy proposals. I call this approach the partnership-type citizen-led local environmental legislation.

Some of the forerunners of this type of legislation are the citizen ordinance proposal for city beautification in Kamakura City, the ordinance promoting recycling in Nerima Ward, and the Kumamoto citizen ordinance proposal for the prevention of global warming in Kumamoto City.

I would like to raise the question whether inviting scholars or experts from other areas to join the organization that formulates basic environment ordinances or the basic environment plan of a municipality is productive or not. Would it not be more practical to have the municipal officials join the organization?

The government's attitude towards citizen participation seems less than enthusiastic so far. It is a stand that basically says "we will listen to the people's suggestions, but leave the rest for us to decide." This attitude accounts for the undesirable consequence of the citizen council and the municipal assembly going different directions. It is advisable for the municipal officials to attend citizen council meetings so that there can be a real dialogue between the government and the people.

4. Building Partnership at the Policy Implementation Stage

It is not an easy task to form partnership with the citizens at the policy implementation stage if the people were not invited to participate or collaborate in the planning process. However, even if citizen participation was weak at the planning, there is still ample reason in forming partnership after the policies have been made. The cities of Kawagoe and Nagano, for example, involved their citizens in making action plans when putting the basic environment plan into effect.

The people can also help set up mid-term goals or action objectives for the basic environment plan. Specifically, they can make proposals of the three-year mid-term goals while the government set up the long-term goals for the basic environment plan. The government then formulates implementation plans based on these proposals. This approach has been adopted by the city of Takefu in Fukui Prefecture.

5. Building Partnership at the Policy Review Stage

It is difficult to determine how the citizens can participate in evaluating policies. Current practices include the publication of an annual report describing the progress of measures based on the basic environment plan, the reporting of achieved results in quantitative terms versus target values, etc. Iida City brought this approach a step further so that its environmental report not only compares the target values with achieved values, it also analyzes the reasons why some of the target values were not attained. Citizen participation in progress management and progress status evaluation can take the following three approaches.

(1) Annual environmental reporting

This approach entails the preparation and the publication of an annual environmental report. After reading the report, the citizens give their opinions and the environmental council communicates these opinions to the municipal government. The government then incorporates the suggestions, as items for deliberation in the government's fiscal plan for the following year. The cities of Kawasaki and Toyonaka both adopted this practice. It is an environmental management approach that uses environmental reporting as the tool for communication between the government and the

citizens.

(2) Participation in the planning of implementation plans and yearly plans

The Sabae City in Fukui Prefecture adopted an approach that entrusts the goal setting and drafting of the action plans of the following fiscal year to a citizen-led organization called the Environmental City Planning Committee. Another alternative to this approach is, as in the case of Kaji City in Gifu Prefecture, for the government and citizens to present and deliberate their action plans in the citizen council meetings.

(3) External monitoring

The Hikone City in Shiga Prefecture is noted for using this approach. In the Basic Environment Ordinance, it stipulates the establishment of an environmental partner committee composed of 10 members including scholars, environmental NGOs, business operators, and citizens who responded to the public advertisements. This committee is different in nature from the environmental council. It reviews the progress of environmental policies and makes proposals to the mayor based on the result of its review. There are also other examples including the use of external auditing in the preparation of environmental reports as in the case of Sendai City, and the involvement of citizens and business operators in the preparation and editing of the White Paper on the Environment as in the case of Itabashi Ward in Tokyo.

6. Issues of the Basic Environment Plans

The followings are some of my observations on the recent basic environment plans. Perhaps these plans were formulated with the local Agenda 21 on mind. Most of them defined the specific functions, in line with the environmental policies, to be performed by the citizens, the business operators, and the government. However, since these environmental plans gave the same emphasis to the roles of the three parties, the government seemed to have lost its function in taking a lead to coordinate. In my opinion, the basic environment plans shall give a more in-depth description of what actions the government will take.

Furthermore, there is a general trend for the basic environment plan to stand out too much, making one wonders if the plan is in coordination with other master plans of city planning or the overall city plan.

The Ishikari City in Hokkaido experimented with formulating the basic environment plan, the urban master plan, and the “Green Basic Plan” simultaneously. Officials from the Environmental Division, the Green Division, and the Urban Planning Division joined forces to establish a joint secretariat, set up a citizen council to organize workshops, and integrated the three plans. This is an interesting attempt to combine urban planning with environmental measures.

Case 1: Environmental Management System in Setagaya Ward - a Method of Environmental Impact Assessment

Satoshi TAKADA, Environment & Disasters Countermeasures Department, Setagaya Ward, Japan

1.Environmental measures in Setagaya Ward

Setagaya Ward has drawn up its basic environmental plan and leading action plan (the environmental action guide), established the Setagaya version of the Environmental Management System and promoted other environmental measures as shown on a separate page. In 1997, we published "The Basic Environmental Plan and Environmental Action Guide: The First Assessment and Inspection Report" to evaluate the Ward's environmental measures and environmental action approaches. Based on the outcome of the assessment and inspection, we reviewed the basic environmental plan and drew up the revised basic environmental plan in 2000.

In addition, with consideration for the draw-up of the global warming prevention plan, we have been working to enhance the environmental management system with the aim of acquiring ISO14001 certification in 2001.

We are currently carrying out a survey to collect basic data for the environmental impact assessment. These data will be used to assess the environmental impact of Ward business activities. In this presentation, we will report on the basic survey methods we have to perform the environmental impact assessment and some of the issues.

2. Categories of Environmental Impact Assessment

Based on existing projects, we can divide the areas of environmental impact assessment for local

governments as follows.

(1) Environmental Impact from Daily Business Operations

Kinds of environmental impact that are caused in public every office by daily operations.

Example: Use of automobiles, Energy consumption (lighting, air conditioning, etc.), Purchasing of materials, Waste generation, Printing matter, etc.

(2) Environmental Impact caused by project activities

Kinds of environmental impact caused by project activities that are operated by the Ward.

1) Projects that would have an impact on the environment
2) Projects that aim for conservation of the local environment.

3. The Concept of the Environmental Impact Assessment Methods

(1) The effective use of the existing system.

Instead of starting a new environmental management system, we decided to use the measures, procedures and accumulated data that are already exist in other sections, such as the sections in charge of facility maintenance and the treasurer's office.

(2) Selection of the survey items

In order to make the assessment procedure more time-effective, we narrowed down the items in the assessment survey and used some of the existing data.

4. Environmental Impact Assessment Method

(1) Survey items in business routine for environmental impact assessment

1) Self-checking of environmental activities in the model offices :Environmental Department

Every section has a designated environmental manager who promotes environmental activities at the workplace. The managers check their own activities in the workplace based on the "environmental activity check sheet." The data from the twenty-seven model offices are collected every quarter-year.

2) Mileage on official vehicles: (Financial Department)

The Department uses the official vehicle usage record, which is prepared as budget assessment data, to assess the environmental impact.

3) Amount of gasoline purchased: (Vehicle subsection, the Accounting Department,)

The Vehicle Subsection in the Accounting Department purchases the gasoline for all the official vehicles owned by different sections. The Vehicle Subsection collects the data for the amount of the gasoline purchased based on the vouchers.

4) Amount of green purchases:Treasurer's office

The treasurer's office makes a collective purchase for the "designated items," while every section individually purchases other items.

The treasurer's office lists the environmentally sound products out of the designated items and acknowledges the amount of the green purchases.

5) Amount of waste: Government Office Building Maintenance Subsection and the Composite Branch

We have to have an understanding of the amount of waste generation from the Government Office Building and the Composite Branch.

We calculate the amount of the waste generation from the Government Office Building based on a report from the waste disposal company.

The waste from the Composite Branch and other offices is treated as general waste with a fee. We purchase and place a sticker on every waste container put out for collection. We use the number of stickers to calculate the weight of the waste generation (in kilograms or tons) for the waste from these offices.

6) Amount of Recycling :Waste Reduction Department

We have a recycle system to recycle used paper, bottles and cans in the Government Office Building. A recycling company collects the items.

7) Amount of energy consumption: Facility Maintenance Department)

Guidelines for the total cost management of public facilities are set to reduce the cost for various areas, from construction planning to maintenance of the facilities.

Every section that is in charge of facility maintenance records the consumption of electricity, gas and water in the facility maintenance and management book. The Facility Maintenance Department collects and analyzes the data.

8) Printing of PR materials: Public Relations and Public Hearing Department

To understand and effectively control the number of PR materials being printed, we made the Manual for the Printing Registration of PR Materials to enforce the printing registration system for PR materials.

For matters concerning PR materials that are published by the ward government, we refer to the Record of Matters Concerning the Publication of PR Materials to obtain the information on the whiteness index, post-consumer paper content and the amount of printing.

9) Amount of envelopes: Environmental Department

The data for the number of envelopes used are collected separately, because there was no existing data available.

10) Amount of copying and the amount of copy paper and envelope consumption: Environmental Department

The amount of copies made was not known before, because there had been no existing guidelines for the number of copy machines and amount of copying done in the whole of the government office buildings. We performed the survey to learn the amount of copying done in all the public buildings except for the schools.

(2) Business activities

Environmental impact assessment of business activities will be performed in cooperation with the policy measure assessment, which is being prepared with consideration for the following issues.

i) The unit of businesses: individual work task

For the introduction of the policy measure assessment, we reorganized the structure of the policy measures. We itemized the tasks into five layers, with the individual work task as the smallest unit. The five layers are: six fields, 18 areas, 82 items, 303 sub-items (business groups) and 2,398 individual work tasks.

These units will be used for the environmental impact assessment in the environmental management system. The process management will be performed in compliance with the Setagaya Ward Basic Plan and the Enforcement Plan.

ii) Effective use of database system

We will effectively use the "Policy Measure Assessment Support System" we developed for the start of the policy measure assessment. The data, such as the amounts in the settled accounts and budgets and numbers in various records, should be more frequently used by sharing the data among different sections.

Items in the environmental impact assessment by individual tasks

1) Tasks that are applicable for environmental consideration system (public works)

Development projects conducted by the Ward that are applicable to the environmental consideration system and environmental consideration guidelines pursuant to the Basic Environmental Regulation.

2) Tasks that are legally regulated by environmental regulations

The tasks that the regulations apply to, which requires some control or report for environmental consideration.

3) Tasks that have raised a complaint in an environmental issue

Tasks that have raised a complaint in an environmental issue while being enforced.

4) Tasks that are expected to have a state of emergency

Tasks that are expected to have a state of emergency that may have an impact on the environment.

5) Tasks that are applicable to the Basic Environmental Plan

Environmental policy measures that are conducted by the Ward and are also applicable to important measures in the Basic Environmental Plan (in preparation) and Basic Measures 21.

5. Problems Involved

1) Sharing of the information

The data are surveyed and collected by the individual section based on the request. Currently these data are not shared among the different sections. Also, the same kind of surveys have been performed repeatedly by different sections. We need to reconstruct the information systems throughout the government and to promote information-sharing for more time-effective data collection.

2) Development of the index for environmental impact assessment

While we can use numbers and prices to show the impact of government business on the environment, it is difficult to indicate the degree of environmental impact. We need other indexes to use in the environmental impact assessment for governmental business activities.

3) Compliance with the policy measure assessment

The Ward is preparing the policy measure assessment, as well as designing the environmental management system. While the environmental management system evaluates environmental impact, we have to evaluate the whole of our policy measures from the standpoint of the government,

which is responsible to improve various aspects of the welfare of the local area.

4) Agreement with the ISO requirements

We have to design the environmental management system so that the system will meet the requirements for the ISO14001 acquisition. We should consider the efficient use of the existing systems in the government offices to design a new, effective system.

5) Accurate data collection

Accurate data collection is difficult in some areas, such as energy consumption and waste generation. We need to find effective data collection methods by conducting sampling surveys and other measures.

Case 2: Setting Targets / Its Review in Environmental Basic Plan and Toyonaka Agenda 21

Kenji KAWASAKI, Assistant Manager, Environment Planning Division, Toyonaka City, Osaka Prefecture, Japan

1. Legal Design for Toyonaka City's Environmental Administration

Toyonaka City boasts varied topography comprising lowlands, plateaus, and hills, and it enjoys a good amount of sunshine as the city area generally slopes down to the south. Since the Hankyu Line started its service in 1910, the city has been developed as a satellite city of Osaka City. During the period of rapid economic growth in the second-half of the 1960s and onward, the densely-populated areas in Toyonaka grew quickly. During the 1970s, the population started to grow rapidly right after the international exhibition was held at Senri New Town. Now nearly 400,000 people live in the city with an area of 36.6 square kilometers. In other words, nearly 110 people live per hectare-a densely-populated city even by Japanese standards. Since the city has a relatively long history, many families have lived in the city for a long time. Partly because these citizens are relatively community-conscious, their relations with those who have newly moved there are relatively good.

Toyonaka City enacted the basic environment ordinance in October 1995 as a new legal framework for environmental administration. This ordinance sets the framework of a basic environment plan-action agendas-evaluation-an annual report in accordance with the environmental management system of Plan-Do-Check-Action. Article 8 and Article 9 lay down a basic environmental plan and action agendas, respectively. Article 10 stipulates that the city compile an annual report on its environmental measures and that citizens' opinions about the report be heard. Article 21 says that an environmental council may express its opinions to the mayor about administrative measures.

This basic environmental ordinance has taken into account the importance of partnership among citizens, businesses, and municipal authorities in tackling environmental problems today, and Article 18 calls for coordinated action among the three parties. In accordance with this article, in May 1996, Toyonaka City set up the "***Toyonaka Citizens' Environmental Council(TCEC)***," an organization promoting partnership among citizens, businesses, and municipal authorities, and which now comprises 150 entities from various fields. The city regards the congress as a partnership organization involving citizens from all walks of life, as not only organizations with strong ties with the city but also NPOs and NGOs are participating.

2. Formulation of the Basic Environment Plan and Toyonaka Agenda 21

Table-1 Members of Toyonaka Citizens' Environmental Council

Chambers of commerce; trade associations including associations of construction firms and unions of landscape gardeners; industrial manufacturers; architects' and designers' associations; distributors; hotels; transportation businesses including bus companies, taxi companies, railway companies, and trucker associations; banks and other financial operators; hospital associations; farmers' associations; government and municipal offices; the Rotary Club and the Lions Club; PTAs and associations of principals of elementary and middle schools; educational institutions including high schools, colleges and universities; youth organizations, including boy scouts and girl scouts; public corporations and citizens' groups for welfare; women's groups, citizens' groups, and labor unions; medical associations, including dentists' associations; associations of parking lot operators; environment-related citizens' groups; environmental NGOs; others.

The Toyonaka municipal government defined the Basic Environment Plan over a three-year period, starting in FY1996. In parallel with this move, the TCEC prepared Toyonaka Agenda 21 (Toyonaka Citizens' Action Plan for Protecting the Global Environment) over the two years starting FY1997, after a one-year experience of partnership. The congress set up four subcommittees, focusing on living, industry, traffic, and nature. The activity of each subcommittee, comprising 20-30 participants, was not limited to monthly meetings. The members of the subcommittees took various actions, including the promotion of household eco-account books, the eco-office campaign, the stop-idling campaign, and biotope-creation at schools. This experience was put to good use in drawing up proposals in accordance with the "action approach" method. The idea was that the members-citizens and business operators-would tend to merely end up with abstract debates if they just sit down and discuss things at meetings. After deepening their understanding of the matters in question through action, the members worked out proposals for concrete action plans. Furthermore, each subcommittee invited experts in order to avoid any confrontation between citizens and municipal authorities.

A working group of about 30 citizens participating on their own initiative and placed under the board of the congress, plays a central role in making proposals and defining activities. Before joining the working group, many members expressed their opinions about the interim proposals for the Toyonaka Basic Environment Ordinance when it was published by the environmental council in order to hear what citizens had to say. The members are actively engaged in the implementation of Toyonaka Agenda 21, saying that because citizens' opinions have been reflected in the ordinance, they share some responsibility for the enforcement of the ordinance.

Some Schools are involved in the activities of TCEC. Children making compost from branches lapped off.

The Basic Environment Plan and Toyonaka Agenda 21 have set common goals. Under the Basic Environment Plan, various approaches have been established, including:

(1) Soliciting citizens' opinions of what the Toyonaka City should be like from an environmental standpoint

(2) Setting quantitative goals

(3) Performance review based on more than 100 monitoring indices

Toyonaka Agenda 21 comprises 101 proposed activities that citizens and businesses can take easily to realize the desired environment of Toyonaka City.

Table-2 Citizens' environmental visions of Toyonaka(extracts)

- *o A city where many citizens work and carry out steps to improve the environment at the community level*
- *o A city where sensitivity towards marvels of nature are fostered through, for example, interaction with animals*
- *o A city where citizens prefer walking to driving*
- *o A city where the blessings of nature including rain and the sunlight are appreciated and put to good use in everyday life*
- *o A city where citizens enjoy clear night skies, viewing stars and breathing deeply in the clean air*
- *o A city where citizens can feel the scent of old history, imagining the period when Toyotamaphimeia machikanensis, a kind of alligator, lived.*

Table-3 Quantitative targets for achieving environmental visions

- o The number of participants in partnership-type activities: (yet to be set)
- o Carbon dioxide emissions: 8-9% reduction from FY1990 levels per head (0.92t-c/year, per head in FY1990)
- o Waste emissions (net): 3-5% reduction from FY1995 levels (151,836t in FY1995)
- o Rainfall permeation rate: 0.21 (reduction to the levels of the second half of the 1970s; 0.217 in FY1974)
- o Achievement rate of environmental standards: 100% (70% in FY1997)
- o Percentage of green coverage: 17% (15.5% in FY1995)

Table-4 Examples of monitoring indices

The number of visitors to incineration plants, the number of seminars on environmental problems, power and gas consumption (by households and by businesses), the volume of chlorofluorocarbon collected, concentration of nitrogen dioxide, concentration of SPM(suspended particulate matter), yearly average levels of aircraft noise, traffic volumes of automobiles along trunk roads, quality of treated water, daily water supply per head, consumption of medicine, recycling rate of waste, percentage of pruned branches and leaves turned into compost, the amount of waste generated from business activities, the number of collection spots for PET bottles, the daily amount of household waste collected per head, the amount of purchased power made redundant as a result of solar power generation, the amount of subsidies for buying compost generating containers, the number of street lights installed, the area of land covered with porous asphalt pavement, the records of environmental consideration, the state of community-led cleaning activities, the number of sheets of paper used in the city hall, energy consumption by the city hall

3. Implementation of Plans through Interaction between Citizens and the Municipal Authorities

The implementation of the two plans-the Basic Environment Plan and Toyonaka Agenda 21-are managed through an interactive method. In this method, citizens, businesses, and municipal authorities share problems and exchange opinions while the two parties implement their respective plans, and then reflect the results of such interaction in new measures and actions.

In FY1999, municipal authorities compiled the track records of its activities carried out in the previous fiscal year in July and August (1-2). In November, municipal authorities published an interim environmental report outlining activities by the municipal authorities themselves and by citizens, and exchanged opinions between the two parties at an environmental forum (3).

1. Tracking down the implementation of environmental measures
2. Checking data reported within the city hall
3. Compilation of data and preparation of an interim report
4. Publishing the interim report and soliciting opinions from citizens
5. Evaluation
6. Feedback reflected in the following year's measures
7. Publishing the final report
8. Implementation of the following year's measures
9. Fig. 1 Procedure Flow for Compilation of the Environmental Report

At the environmental forum, members of the environmental council, city assembly members, the mayor, and other high-ranking city officials, directors of the Toyonaka Citizens' Environmental Council(TCEC), members of the working group, and ordinary citizens exchanged their proposals and opinions concerning environmental problems under the theme "waste, the natural environment, and traffic." In December, based on such exchanges, the environmental council compiled a set of proposals for measures to be taken the next year in response to the interim environmental report (4). As a cross-sectorial agency of environmental administration, the environmental management committee, which is headed by the deputy mayor and is made up of department managers, as far as possible incorporated such proposals into the measures to be taken in the next and following years (5). The committee also expressed, in its final environmental report, the basic stance of the municipal government regarding the opinions of the environmental council (6). The committee plans to respond to the opinions and questions from citizens regarding the interim environmental report in the environmental report for FY2000. See Table-5.

4. Communication among Stakeholders and the Role of the Local Agenda 21

In Japan, Local Agenda 21 is often regarded as the action program for the basic environment plan-an administrative plan of a given municipality, or as the same as the basic environment plan. This has something to do with the following factors:

(1) There have been only a few cases in which citizens and business from various fields and municipal authorities together work out agendas for decision-making on an equal footing at a roundtable or other open forum.

(2) Because the concept of management has not been fully understood, there has, until recently, been no system for evaluating the implementation of a given plan on a yearly basis, and feeding back such evaluation to the following stages.

Local Agenda 21 can serve as a management tool for the environmental policy of a given municipality that is being implemented in partnership with citizens and businesses, if the

agenda is used in the following ways for creating a sustainable society:

(1) As a tool for various interested groups in projecting the municipality's future, identifying the challenges ahead, and setting objectives;

(2) As a process of enabling citizens to express their opinions to municipal authorities and coming to agreements together; and

(3) As a communication tool between citizens and municipal authorities in evaluating the state of the environment and the public services provided by a given municipality.

Toyonaka City puts communication with its citizens first. To this end, the city ensures the participation of its citizens in the management of environmental policies. In an attempt to attain common goals for citizens and the municipal authorities, the city also makes use of environmental reporting, including maintaining track records for both parties.

Table 5 The flow of Toyonaka City's environmental management system

Item	Who does what
(1)Keeping track of the implementation of environmental measures	Sections in charge fill out questionnaires on environmental measures
(2) Compilation of data and preparation of the interim report	The secretariat compiles data provided by the sections in charge and prepares the interim report
(3) Soliciting and sharing opinions from citizens	Municipal authorities publish the report and solicits and shares opinions from citizens at the environmental forum.
(4) Evaluation of the implementation of environmental measures	The TCEC makes an evaluation at its expert committee.
(5) Feedback reflected in the following year's measures	The congress reports to the Toyonaka City Environmental Management Committee, a cross-sectorial agency headed by the deputy mayor.
(6) Preparation and publishing of the final report	The city publishes the environmental report incorporating the opinions of citizens, the environmental council, and municipal authorities.

←**Members of TCEC calling for "Stop engine-idling"**

Activities of "Toyonaka Citizens Environmental Council"→

***Case 3*: Coalition of Local Governments for Environmental Initiatives**

Environmental Indicators, Common Targets among the Member Municipalities

Takahiro NAKAGUCHI, Director of Research Institute for Local Initiative of Environemtal Policies (RILIEP)

1. Significance of Common Targets

The first reason to hold common targets is because in the era of "Think globally, act locally," the number of political issues that are common among local governments has increased dramatically. Regardless of where we are located in the nation, we cannot avoid a certain amount of the influence of global environmental changes. We can therefore say that it is a common task for all local governments to modify human activities such as the consumption and disposal of resources and energy, since they all place some degree of load on the global environment.

The second reason is because we have stronger needs to manage the progress of policy measures. The environmental management system-"Plan-Do-Check- Action"-is becoming imperative to local government policy measures. Some of the small governments, however, find it difficult to maintain enough human resources, and the system has not been well established in those areas. Then an idea was brought about that the secretariat of the Coalition of Local Governments for Environmental Initiatives (COLGEI) should support the management of local policy progress and provide the necessary information and advice for the practices of policies.

With these reasons we decided to hold common targets among the member governments of the COLGEI, and citizens or corporations within the area, who then will work together to achieve the targets. Also, it has been decided that the Environmental Policy Research Center will know and report the progress of the achievement while accumulating the information that is necessary to carry out the activities.

2. How Were Common Targets Selected?

In March 1998, the Common Targets Subcommittee was started, and in May of the same year a keynote discussion and sectional meetings were held and the establishment of common targets was approved at the Koga Conference. After the conference, earnest discussions were made about the content of the targets. The survey in August showed that the majority of the member governments wanted to have the common targets and to publish the targets in the annual report. After the discussions of the propositional targets in the Common Target Subcommittee, nine qualitative targets were proposed in March 1999. After the heads of member governments approved the majority of the proposed targets in the survey held in May, the common targets ware practically finalized.

The Subcommon Target Subcommittee also discussed an indicators to evaluate the achievement progress, and in June three municipalities cooperated to carry out a pilot assessment to measure the current states. The pilot assessment was repeated with all the member governments in September. The secretariat of the Council analyzed the collected data with additional statistical data it obtained from other sources. The Committee also performed a survey for the member governments to study the current practices of the policy measures itemized in the common targets. In April 2000, the members reported the practical measures they would take in the future to realize each target, and these data were reported in the annual report. In May, the National Convention (Minamata Conference) approved the report.

March 1998 :The Common Target Subcommittee was established.

May 1998 :The establishment of the common targets was approved in the Seventh National Convention (Furukawa Conference).

August 1998 : The survey was conducted on the establishment and reporting method of the common targets and the current practices of the environmental policy.

September 1998 : The survey on the current practices of the environmental policy measures was conducted for all the local governments in the nation.

May 1999 : The proposed common targets were published in the May issue of the COLGEI News.

May 1999 :A survey on the proposed common targets was held for the heads of the local governments.

June 1999 : A pilot assessment was conducted with the current status values for Kamakura City, Futatsui Town, and Yasuzuka Town.

September 1999: An assessment on the current status value concerning the common targets was

conducted with the member governments.

November 1999: A status survey on the creation of environmentally friendly township was held on request from Minamata City.

April 2000: A survey was conducted on the practical measures the members would take for the realization of the targets.

May 2000: The common targets were approved at the Minamata Conference.

3. How Do We Manage the Progress of the Common Targets?

Although no numerical targets was were set, the indicator to measure the achievement of the common targets was decided. Learning and analyzing the indicator annually numerically manage the progress. As for the indicators that individual governments cannot obtain, the council secretariat will independently collect and analyze the statistical data. Each member government will report to the council secretariat on the annual progress of practical measures they have taken to realize the common targets. These will be reported in the annual report of the council.

The Construction and Progress Management of the Common targets

1. The Layers of Targets
2. Decision-making Process
3. Progress Management
4. The Common targets in the Nine Fields (qualitative)
5. The discussion at the Common Target Committee. The final approval at the Minamata Conference.
6. The indicator used to measure the achievement of the common targets.
7. The discussion at the Common Target Committee. The final approval at the Minamata Conference.
8. Each member government reporting to the secretariat of the numerical information. Or analysis by the Committee secretariat based on the statistical data.
9. Practical Measures to realize the common targets
10. Independently decided by each member government. Report of the result to the Committee secretariat.
11. Report of the achievement progress to the Committee secretariat by each government.

4. Common Targets of COLGEI

1. Global Environment: *We will contribute to prevent the global warming through energy conservation and introduction of environmentally sound energy sources.*[Indicator: The amount of carbon dioxide emissions (electricity consumption) throughout the local area. The amount of energy consumption on business activities at the government buildings.]

2. Air Pollution: *We will prevent the air pollution to maintain the health of citizens. We promote alternative transportation systems that are more environmentally sound.*[Indicator: The ratio of automobiles to the total transportation system (major cities only).]

3. Water Environment: *We will maintain and improve the water quality. We preserve and restore the clean environment in and around the water bodies.*[Indicator: The percentage of wastewater treatment from the households.]

4. The Natural Environment and Hydro-meteorology: *We will conserve and create green areas in our neighborhood. We conserve and recover the natural water cycle. We will nurture the industry that efficiently uses natural resources while maintaining the public functions of the forests and agricultural fields.* [Indicator: The percentage of the green areas. The percentage of abandoned agricultural fields. The environmental conservation functions, such as air purification function, flood prevention function and soil erosion prevention function.]

5. Waste and Resources: *We will reduce waste and promote the effective use and recycling of resources.* [Indicator: The per-capita percentages of incineration, land filling and recycling of general waste.]

6. Harmful Chemicals: *We will control the use of materials that can be the source of harmful substances. We will control the generation of harmful chemicals.*[Indicator: The percentage of incombustible materials in the incinerating waste.]

7. Environmental Administration: *We will establish a holistic system to enhance environmental administration and assessment.*[Indicator: The enforcement status of the environmental management tools, such as the basic environmental regulations, basic environmental plan and ISO14001.]

8. Environmental Education: *We will raise the interest and understanding of environmental issues among citizens in and around the area. We will support their voluntary environmental conservation activities.*[Indicator: Environmental education at school. The number of seminars on environmental issues at held in public halls, etc. The number of participants in those seminars.]

9. Citizens' Participation: *We will promote the participation of the residents in environmental policy making and the local activities that are led by the residents.*[Indicator: The number of resident participation in committees for environmental policy making or "partnership style" organizations.

Table- Example of Indicators: The per-capita percentages of incineration, land filling and recycling of waste

Memeber minucipals	Management of Waste														
	No. of answers or Answer year	Waste Production per capital a day	Recycled	Incinerated	Landfilled	Waste Management by the municipality					Waste Management by Multi-municipality				
						population	Waste Production	Incinerated	Recycled	Landfilled	population	Waste Production	Incinerated	Recycled	Landfilled
av. of all members	37	1,061	9%	75%	26%	2,608,684	1,010,006	758,181	89,524	265,336	810,903	276,954	224,577	35,000	82,726
av. of members in urban area	12	1,118	9%	76%	25%	2,291,885	935,242	714,354	80,593	234,973	289,128	87,201	56,029	24,996	37,894
av. in flat-land rural area	10	526	14%	59%	60%	159,259	30,590	17,940	4,402	18,283	332,286	138,413	120,032	6,060	28,919
av. in midum-land rural area	9	930	10%	62%	29%	115,535	39,204	24,469	3,871	11,362	16,829	5,393	10,503	1,056	1,082
av. in mountains rural area	6	361	12%	29%	15%	37,260	4,914	1,418	602	718	167,915	45,436	37,502	2,888	14,831
Kushiro city	1998	1,776	2%	0%	98%	194,166	125,856	0	2,428	123,428					
Obihiro city	1998	1,069	23%	72%	-	173,488	67,665	48,386	15,433						26,456
Shari town	1998	1,546	25%	-	83%	11,727	6,616		1,653	5,474					
Takikami town															
Shihoro town	1998	729	-	58%	100%	6,989	1,859	1,079		1,859					
Shikaoi town															
Ikeda town	1998	821	12%	2%	98%	9,128	2,735	42	333	2,693					
Fukaura town															
Noheji town	1998	733	-	-	56%	16,774	4,485			2,495			5,542	897	

Case 4: Environmental Model City, Minamata - Waste reduction, recycle, eco tourism, and ISO performance

Yoichi SEKI, Minamata City

1. Separate Collection of 23 Types of Waste

Minamata City introduced the separate collection of waste in 1993, before any other city in Japan. Currently, waste is divided into 23 types and collected by the station method. The collection of CFC gas has also been started. Many people responsible for administration, representatives from community creation groups visit the city every day to inspect the region so advanced in waste disposal. Recently, students from various parts of Japan also started visiting the city, during school trip as a part of their educational programs.

1. Returnable Bottles
2. Bottles (transparent)
3. Bottles (brown)
4. Bottles (light blue)
5. Bottles (green)
6. Bottles (black)
7. Flat glass
8. Steel cans
9. Aluminum cans
10. Pots & pans
11. PET bottles
12. Waste plastic
13. Newspapers & leaflets
14. Corrugated paper
15. Magazines
16. Other types of paper
17. Clothes
18. Large waste
19. Dry batteries, etc.
20. Fluorescent lights, electric bulbs, etc.
21. Landfill waste
22. Bottle caps, etc.
23. Burnables

2. Activities of Women's Liaison Meeting for Reducing Waste

Major activities of "Women's Liaison Meeting for Reducing Waste"

① Concluded "Agreement on Abolition of Plastic Food Trays" with 4 large retailers in the city

Plastic food trays were prohibited in the sale of 65 items. (September 1998)

Sales activities have been monitored on a regular basis since then.

② Engaged in the distribution of free "shopping bags" to households to do away with plastic bags offered at cash registers (November to December 1998).

③ Supported the establishment of the Eco-Shop Certification System and engaged in examination

(since April 1999).
④ Engaged in family ISO certification examination (since October 1999)
⑤ Prompted one of the large retailers to introduce a point-card system for clients coming with their own shopping bags.

3. Operation of ISO Environmental Management System

The municipal office of Minamata City obtained ISO14001, international standard for environmental management, in February 1999. Under the system, the city intends to redouble efforts for the realization of "an environmental model city" making the most of the lessons from Minamata disease and fulfill the roles local governments should play in the preservation and revival of the global environment.

<Effects>
① A significant step for Minamata City to be recognized by everybody as an international environmental model city.
② Improvement of the regional image (may give favorable effects at the Local Government Environmental Council and Mansfield Environment International Conference in 2000, Mercury International Meeting in 2001, etc.)
③ Reduction of costs through energy and resource saving, including lower costs of electricity and paper used at the municipal office and related facilities.
④ Changes of ideas on environment and progress in activities of staff members.
⑤ Rationalization of administration and progress of reform as a result of the introduction of the system.
⑥ Improvement of ideas and influence on concrete activities of citizens as a result of the acquisition of environmental ISO by the municipal office.
⑦ Support of small enterprises in the city in the acquisition of environmental ISO.

<Purposes and Targets>

Reduction of waste, etc.	40
Creation of an environmental model city	31
Promotion of energy saving	6
Resource saving and recycling	3

4. "Family ISO" (family version of ISO) - Creation of Environment-Friendly Living

<Scheme>
At home
① Declaration of activities
Choose some activities from the 35 items such as "turn off the light in an unused room" and declare them.
② Assignment works (who takes care of what) and activities
Example:
Mother - shopping-related matters
Children - management of energy and resource saving
Father - matters related to car usage
Grandmother - matters related to waste disposal
Grandfather - matters related to electricity, etc.
③ Recording of activities
Make a record to clearly show the results of the activities.
④ Reviews
Start new activities after checking the record.
↓ Three months later:
Examination: Executed by the Women's Liaison Meeting for Reducing Waste, etc., under the leadership of the Minamata Junior Chamber.
Certification: The mayor will certify families passing the examination.
*The certification is valid for three years and during the three-year period, periodical examinations are held each year.

5. "School Version of Environmental ISO" - Creation of Environment-Friendly Schools

<Scheme>
At school
① Declaration of activities
Choose some items from 76 items including "turn off the light in the classroom whenever the light is unnecessary" and declare them.
② Assignment of works (who takes care of what) and activities
Example:
Principal: general administrator of environmental management
Vice-principal: person in charge of environmental management
Chief teacher: head of executive committee
Class teacher: environmental promotion staff
President of the student council: environmental leader
Vice-president of the student council: environmental sub-leader
③ Recording of activities
Make a record to clearly show the results of

← It is important to relate Minamata-disease to children.

activities.

④ Reviews

Start new activities after checking the record.

↓ Three months later:

Examination

Executed by the School Education Section and Environment Section of Minamata City.

Certification: The mayor will certify schools passing the examination.

Other

The certification is valid for three years and during the three-year period, periodical examinations are held each year.

6. Environment Meister System

"Meister" means a "master craftsman" under a German system. Meisters certified by public organizations are given a certain status.

Minamata City established a system for certifying craftsmen who attach much importance to the environment in their production activities. This is called the Environment Meister System, and commenced in fiscal 1998, before any other city in Japan. This is to improve the status and consciousness of craftsman and promote the creation of safe and sound commodities in consideration of environment and health, reflecting their experience with Minamata disease.

In the first year, fiscal 1998, nine craftsmen engaged in the activities of papermaking, and the production of tea leaves, bread, tangerine oranges, vegetables, rice or eggs were certified. In fiscal 1999, five craftsmen including a tatami-maker were additionally certified, making the current total of certified environmental meisters fourteen. All of them produce products with confidence and pay careful attention to the environment in every part of their processes, including materials selection, production, processing, selling, and disposal of waste.

"Products produced by environmental meisters" mean safe and sound products certified by the municipal office. For some time in the past, Minamata-made products were not favorably accepted on the market due to the bad image of the city. Nonetheless, people in Minamata have learned through experience the dreadfulness of environmental pollution and because of this, they can now produce truly safe and harmless products. Before the establishment of the meister system, Minamata products were simply products produced with confidence by people who were particularly concerned about the environment. In future, however, they will be traded as brand products produced by the renowned environmental meisters of Minamata City.

<Qualification Criteria>

① Have been engaged in production in consideration of environment and health for 5 years or longer.

② Have experience in production in consideration of environment and health, including the use of natural materials and elimination of chemicals

③ Have detailed knowledge, experience, technology, etc. in relation to production in consideration of environment and health.

④ Engaged in activities in relation to the preservation of the local environment.

⑤ Have detailed knowledge about environmental problems and preservation.
⑥ Have detailed knowledge upon pollution, including the Minamata disease.

7. Promotion of Green Tourism

Minamata City is promoting green tourism, regarding the whole region as a field.

We believe that the creation of an environment rich in nature will lead to green tourism, resulting in the activation of the local economy. According to this belief, a "Minamata Green Tourism Study Meeting" was organized in April 1999, which comprised nine members, including people engaged in agriculture or forestry, and the headmen of administrative wards. These meetings are promoting efforts for information gathering and exchange and the establishment of know-how for commercialization, in order to establish Minamata City's green tourism based upon its natural features and life style unique to Minamata.

Major Activities

Eco Minamata Field Tour: October 2 to 4, 1998
Held three courses to the village, mountains, and sea for 20 people from the mass media concerned with green tourism and sought their opinion and impressions.

1st Monitor Tour: May 29 to 30, 1998
Nineteen people living in urban areas participated. Three menus - "Living in the Mountain" (Kugino area), "Living by the Sea" (Fukuro area) and "Spa" (Yude area) - were offered. Evaluation criteria were clarified, including the scale, travel means, etc.

2nd Monitor Tour: September 22 to 24, 1998
Under the title of "Enjoy the Autumn Taste in Minamata", three courses - "Natural Features and Living Created by Water" (Ishitobi area), "Living in the Mountain" (Kugino area), and "Discovery of New Spas" (Yude area) - were conducted with the participation of 17 people from the mass media as monitors. A report was prepared after the courses were completed.

Prepared pamphlets and a report on Minamata's own style of green tourism.

Separate collection of 23 types of waste

a river in Minamata

Case 5:Kaisei Town, Partnership-Building for Waste Reduction

Toru ENDO, Division of Life and Environment, Kaisei Town

Kaisei town is located in the western part of Kanagawa Prefecture, in the central part of the Ashigara Plain. The town stretches east and west for 1.7 km and south and north for 3.8 km, with a total area of 6.56 km2. Although it is quite small in area, the town is rich in soil and water since it is situated in an alluvial fan formed in the basin of Sakawa River, which flows north to south. It is built on flat land that slightly tilted towards the south and enjoys a mild climate.

Since the town is so small and flat as stated above, we have difficulty in finding an appropriate location for constructing disposal and incineration facilities. We have been relying on neighbor towns for waste disposal and thus the issue of garbage has been rather an "Achilles' heel" for the town.

Such circumstances, on the other hand, helped to foster an increased awareness of garbage issues in the residents of the town. In particular, an NGO group in the town has been at the frontier of efforts against waste issues, leading the governmental actions relating to garbage disposal. A river cleaning crusade by all the town's residents and a resource recovery campaign, typical of which is aluminum can recovery, are actions originally tackled by the NGO group.

The town has so far reflected in its garbage control such actions initiated by groups and individuals as well as taking into account their opinions. We started separate collection of incombustibles in 1982, ahead of other neighboring towns. As a result of gradually increasing resource recovery activities since then, we have achieved and are maintaining a resource recovery rate of 20%.

We have been implementing various efforts for raising public awareness in order to reduce waste and improve the rate of resource recovery. We are also promoting resource recovery by setting incentive payments for the recovery of resources by groups. Our other efforts include campaigns for raising awareness and seminars given by town officials on waste disposal at community meetings.

In addition to the above, a panel discussion on the topic of constructing a resource recycling society was held this year with the Mayor and senior members of NGO groups, among others, serving as panelists. We also constructed and commenced operation from this year of a test facility named the "Green Recycle Center" for composting yard waste and garbage. The facility is used to perform demonstration tests with a view not just to incinerating yard waste and garbage but to recycling them as compost. The final aim is to increase recycling rates in the future.

The waste problem cannot be solved through efforts initiated solely by governments. It is essential that the government, business operators, and residents cooperate and build a reliable relationship with each other. Based on such an understanding, we believe it is necessary for us to further develop our relationship with residents and business operators.

Case 6:Gold Coast City, Water Pricing and Community Consultation

Stephen NOONAN, Financial Coordinator Quality & Performance, Gold Coast City Council

Gold Coast City's Water Services

- Department responsible called Gold CoastWater
- Assets of $1.2 billion
- Average Age of Assets is 20 years
- Resident Population of 390,000
- 3.3 million tourists per year

Water Supply Assets

- Two Dams & Two Water Treatment Plants
- Water demand of 60 million m3 per year
- 2,700 km of Water Mains
- 185,000 properties with Water Services
- Full metering of customers water use

Sewerage Assets

- Six Sewage Treatment Plants
- 11% of Sewage Treated using Advanced Nutrient Removal of Biological and Chemical
- 89%to Secondary Standard
- 2,600 km of Sewerage Mains
- 550 Sewage Pumping Stations

Gold Coast Corporate Plan

- Community Focus
  - communication and service standards
- Environmental Sustainability
  - maintain the natural environment
- Economic Sustainability

National Water Resource Policy

- Conform with broader national water reforms
- All water authorities to adopt a water service charge by 1998 comprising an access and usage component
- Requires full cost recovery of O&M and return on capital
- No cross-subsidies between consumers
- Assessment required of the costs and benefits of price reform on community

Conservation of water resources

- Deferral of augmentation is major benefit
- Dam augmentation was required by 2011
- Capital cost of $75 million
- Demand management & pricing provides deferral by 10 years to 2021

Gold Coast Water Strategic Plan

2000 - 2003 targets

- 10% increase in customer satisfaction
- 3% reduction in water use per property
- 25% reduction in total nitrogen releases
- 50% reduction in phosphorus releases
- 50% increase in beneficial reuse of wastewater (currently 8%)

Capital Investment

- $200 million investment in Northern Wastewater scheme:
  - environmentally acclaimed
  - eliminate disposal of effluent to ocean
  - beneficial reuse of byproducts to canelands and power generation
- 100% tertiary treatment of all wastewater by 2003

Pricing Strategies

- Water Pricing Reform needed to be consistent with intent of Corporate Plan
- removal of free water use allowances
- pay for use charges introduced from July 2000 for residential
- pay for use charges to be introduced for commercials by July 2001
- incentive based pricing

Considerations in determining pricing policy

- Limited regulatory intervention at present
- Majority of community wanted pay for use water charges
- Consumers have potential to reduce charges
- Water demand is price sensitive

Further Considerations

- Charges are more equitable and cost reflective
- Potential shift in revenue between consumer groups
- Phased in implementation approach

Non fiscal demand management programs

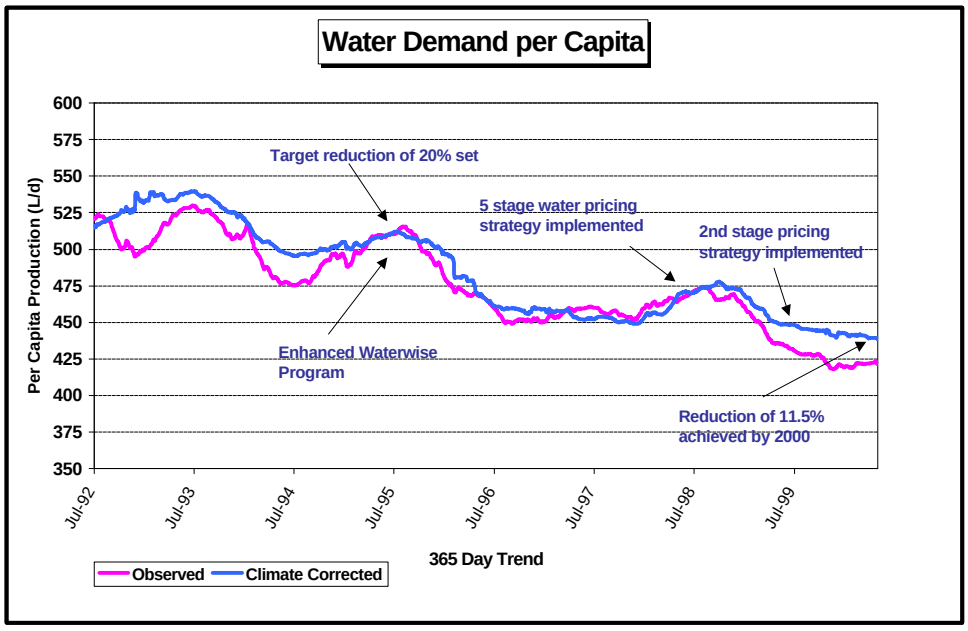
- Waterwise Communication & Education Strategy
  - to reduce water use by 20%
  - synergy with water pricing strategies
  - to increase environmental awareness
  - consultation with stakeholders
- Unaccounted for Water Program

Waterwise for Schools, Resorts and Hotels

Community Consultation

Water Pricing Community Advisory Committee in 1996

- Examine new alternatives for water pricing
- Residents, pensioners, environmentalists, businesses
- Committee recommendations to Council in 1997
- Committee report put on public display for



comment
- Recommendations endorsed by Counci

Other Community Advisory Committees
- Northern Wastewater Effluent Reuse Advisory Committee
- Trade Waste Advisory Committee

Community Consultation for Pricing
- Appointment of consultants to manage
- Free call telephone hotlines
- Discussion groups
- Interviews with Advisory Committee
- Interviews with top 25 commercial water users
- Telephone survey of consumers
- Fact sheets available on issues

Community Consultation (post pricing changes)
- Staffed public displays
- Brochures to all residents on pricing policy
- Residents information booklet
- Brochure on "How to read your Water Meter"
- Community group presentations

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Case 7: Pusan Metropolitan City, Food Reduction Program Via Participation of Community Group

Ockyung, HUR, the Institute for Policy Development, Pusan Metropolitan City

1. Profile of Pusan Metropolitan City

Population: 3,879,000
Land Area : 749km2
Budget : US$ 3.8 billion (2000)
Location

Pusan lies between 128° 45′ 54 ″and 129° 18′ 3″ east longitude, 34° 23′ 36″ and 35° 23′ 36″ north latitude. Pusan is in the same latitude as Tokyo

Climate

Pusan is in the Temperate Zone with a mild maritime climate. The average temperature of Pusan is 14?C Pusan is cool in the summer and warm in the winter.

Economic Activities

Retail, trade, services, port logistics

2. Project Description

1) Situation before starting the project

The rapid growth in industry and population of Pusan Metropolitan City has made waste management a challenge. Most food waste had been landfilled along with other domestic solid wastes by 1994 when this project was initiated. Food waste composed 31% of the total waste production in 1994.

2) Initiation of the project

As expansion of landfill sites faced public opposition because of a noxious smell and leachates resulting from the decomposition of organic waste, the city government strove to seek out the way of food waste reduction. The food waste recycling project was started by the woman's association of the Guseo Sunkyung Apartment complex in Guemjung-Gu of Pusan Metropolitan City under the guidance of Mr. Bae Myung-chang, the president of the Republic of Korea Red Cross-Pusan Chapter.

3) Processes of the project at the first stage

EM ferment was provided to be added in home food waste disposal chamber. Fermented food waste was collected every week. It was transferred to farmhouses and used as an organic fertilizer.

4) Goals

Zero carrying in of food waste to landfill sites and incineration plants and utilization of food waste as a resource

5) Objectives
- Changing eating habits
- Saving cost for constructing the waste treatment infrastructure of the city (Wasting food costs over US$6,500 million annually for nation-wide)
- Reducimg the 2nd environmental pollution posed by incineration and landfill leachate
- Improving citizen's health by providing them with organic agricultural products cultivated by compost of food waste
- Supporting livestock industry by improving feed quality

Daily Production and Management of Waste in 1994 (Unit: ton/day)

Waste Production	Recycled	Amount Treated		
		Subtotal	Landfilled	Incinerated
4,600(100%)	985(21%)	3,615(79%)	3,546(77%) Food waste:1,426(31%)	69(2%)

6) Community Participation

The project was started up by voluntary participation of the women's association of one apartment complex under the guidance of the president of the Republic of Korea Red Cross-Pusan Chapter.

7) Progress

This successful project was distributed to other communities by educational presentations. The movement was gradually expanded to the whole society of Pusan Metropolitan City. 45%(495,000 homes) of the total 1,100,000 homes are currently participated in this project.

The number (percentage) of homes participating

1995	150,000(13.6%)
1996	224,000(20.4%)
1997	292,000(26.5%)
1998	350,000(31.8%)
1999	500,000(45.5%)

3. Results Achieved

This project has contributed to

1) Changing the eating habits of the citizens
2) Saving food expenses by planned menu and planned purchasing of the food material.
3) Reducing the amount of carrying-in waste to landfill sites and incineration plants by removing the food waste.

Year	1995	1999	The amount reduced:
Amount carrying-in	2,899 ton/day	1,949 ton/day	**950 ton/day**

4) Improving the water quality of the leachate.

Year	1996	1997	1998	1999
Quality(ppm)	34,276	25,299	10,192	5,905

5) Reducing the risk of the Second pollution

4. Importance of the Project

- Voluntary participation of the local community and intimate cooperation between the city government and comminity group
- Extending landfill site use by reducing the amount of the waste production
- Increasing incineration efficiency by removing wet organic waste
- Decreasing the 2nd pollution of underground water caused by leachate
- Preventing pollution and acidification of soil

5. Applicability of the Project in Other Communities

It can be applicable and recommentdable to any communities.

EM ferment was provided to be added in home food waste disposal chamber. Fermented food waste was collected every week. It was transferred to farmhouses and used as an organic fertilizer.

Case 8 The Iida City Hall's ISO-related Initiative and the Study Group on the Community-Wide Initiative for the Environment and ISO Certification

Toshiaki KOBAYASHI, Chief, ISO Campaign Section, Environmental Conservation Department, Waterworks and Environment Division, Iida City

1. Iida City

Iida City is located in the southern part of Nagano Prefecture, which lies north-to-south in the middle of the Japanese main island of Japan. This mountain city is surrounded by the Japanese "Central Alps" to the west and the "Southern Alps" to the east. In the middle of the city flows the Tenryu River, which originates in Lake Suwa and runs south into the Enshu Sea.

Iida is known as a mountain city as it boasts natural beauty as exemplified by mountains and rivers, as well as a long history fostered by its natural environment. Along both sides of the Tenryu River run terraces shaped by the upheaval of the Alps and erosion by the river, constituting the landscape peculiar to the Ina Valley.

With a climate warmer than any other part of Nagano Prefecture, the region has been inhabited since the Jomon period (10,000 BC to 300 BC). People have established their lives here, taking advantage of the blessings of nature in the region.

Agriculture is prospering in Iida despite the fact that forest land accounts for 86 percent of the total area of the city. As Iida is situated at a latitude of 35 degrees north, where the northernmost part of the pear-producing region and the southernmost part of the apple-producing region overlap each other, various kinds of fruits are grown on the upper river terraces. Over the flat and lowest terraces extend rice paddies.

Iida City is a "**town of Ringo Namiki (rows of apple trees) and puppet shows**." The history of Ringo Namiki dates back to a big fire in April 1947. The fire was first a small one, but after being fanned by a strong wind, it became bigger and bigger and eventually burned down 80 percent of the densely-populated area in the city. Rows of old houses and other buildings that formed a beautiful city landscape, reminiscent of an old castle town, were reduced to ashes. Only the burned ruins remained. In the course of rebuilding the city, on their own initiative, the students of a middle school planted 40 apple trees along the central reservation of the main street, in a bid to create a Ringo Namiki. Their efforts eventually culminated in the construction of the "Town of Ringo Namiki." In 1999, the entire Ringo Namiki, 400 meters in length,

was turned into a park despite many hurdles such as thefts of the trees, plans to convert the street into a parking lot, and the general aging of the trees. Now Ringo Namiki, as a symbol of Iida City, gives the citizens peace of mind with the trees bearing beautiful white flowers in spring and red fruit in autumn.

As the "town of puppet shows," Iida City is filled with puppet shows during the "Puppet Show Festival" in early August each year. Since the first puppetry carnival in 1979, combined efforts to promote this cultural movement by citizens, puppeteers who love Iida, and the municipal authorities, have culminated in a form of regional culture. In 1999, the annual puppetry carnival was reborn as the "Puppet Show Festival," in which citizens and puppeteers take the initiative.

This year, nearly 300 puppet troops including some from abroad participated in the annual event. They played at a total of 85 locations throughout the city, including community centers and daycare centers. Under the slogan "everyone can take part-by seeing, playing or supporting," everyone was invited to the event.

2. Environmental Administration

Blessed with a rich natural environment, Iida City has been pursuing a progressive environmental administration. In June 1987, the city established a citizen's charter comprising five pledges, the first of which says "we are committed to cherishing nature and pursuing an Iida City with a beautiful natural environment." In October 1992, the city set up the Eco-Friendly Lifestyle Promoting Headquarters

designed to encourage energy conservation and paper recycling within the city hall. In April 1996, Iida City drew up its basic plan aimed at pursuing a Cultural Environmental city in which citizens lead sound and healthy lives and conserve the beautiful natural environment. Under this basic plan, in December 1996, the city drew up the "Iida Environmental Plan 21" designed to realize a community that cohabits with nature.

In July 1997, Iida City was designated as an "Eco-town Area" by the Ministry of International Trade and Industry (MITI). Based on the Eco-Town Plan (plan to build a eco-friendly city) and the "Tenryukyo Eco-valley Project," Iida City is pursuing a resource-recycling community with zero emissions.

In April 2000, Iida City opened part of the "Environmental Industrial Park" designed to promote recycling-related R&D businesses and environmental learning, as two such businesses were set up in the park with MITI's Eco-Town subsidies. The city is now proposing an "Eco Housing Village" (eco-friendly housing).

3. the Acquisition of ISO 14001 Certification

Iida City launched its efforts to win ISO 14001 certification with regard to the duties and affairs at all the facilities within the city hall with a declaration to this effort in July 1998. After a run-up period of one year, during which its own staff training without the help of external consultants was provided, the city announced its environmental policy in September 1999, commencing the operation of the environmental management system. After the appropriate examination and registration procedures, Iida City earned ISO 14001 certification in January 2000.

The acquisition of ISO 14001 certification by Iida City is significant for the following areas:

(1) The municipal administration in general
(2) Local businesses, in that the acquisition sets an example to be followed by them
(3) City employees, in that the acquisition raised their environmental awareness

In other words, Iida City has acquired ISO 14001 certification for three fundamental purposes.

(1) To realize a "cultured eco-friendly city" and support the implementation of Iida Environmental Program 21, based on the steps the city's environmental administration has taken so far
(2) To strengthen cooperative relations with local businesses through the activities of the Study Group on the Community-Wide Initiative for the Environment and ISO Certification
(3) To further activities to reform the duties and affairs within the city hall.

In this context, Iida City is committed to continual improvement through its environmental management system.

4. ISO 14001 and "IEMS 21 (I-I-Mu-Su 21)"

While efforts by the city hall's headquarters culminated in the acquisition of ISO certification, the branch agencies, including branch offices and municipal daycare centers did not make such efforts in a systematic way. Under these circumstances, the gap in environmental awareness between the employees at the headquarters and those at the branch offices has widened. To narrow this gap, Iida City launched, in June 2000, activities for environmental improvement called "IEMS 21 (I-I-Mu-Su 21)" as a simplified environmental initiative in line with the concepts of ISO 14001. These activities involve all city employees.

The IEMS 21 is designed to roll out the Iida Environmental Management System (IEMS) into the 21st century. "I-I" in "I-I-Mu-Su" also represents Iida and "Mu-Su" from "Mutosu," a catchword for local residents who are committed to foster community development on their own initiatives. The IEMS 21 initiative, involving all city employees, aims to realize a cultured and eco-friendly city. Some of the common goals are to reduce the consumption of kerosene, gas, electricity and copy paper, sort and reduce waste, and to encourage green purchasing.

Because IEMS 21 has been launched as a

simplified system with a simplified PDCA (Plan-Do-Check-Act) cycle, internal auditing and certification have been left out, and how these areas should be handled remains to be decided. Anyway, the initiative is significant in that it also serves as an experiment toward realizing self-compliance without examination or registration. The elementary and middle schools in the city launched an even more simplified version called "IEMS at School," in September 2000.

5. Study Group on the Community-Wide Initiative for the Environment and ISO Certification

The Study Group on the Community-Wide Initiative for the Environment and ISO Certification is a voluntary body born out of the "Eco-Town Saloon" within the "Eco-Town Project." Its aim is to "create a community culture for environmental improvement-conserving the local natural environment and creating a sustainable community."

A study group was launched in November 1997 by the city hall and five local businesses, and known as the "Study Group for the Community-Wide Initiative to Acquire ISO Certification." The idea was that local businesses have an obligation to work together for a better environment as corporate citizens. Further, it was hoped that initiatives by local businesses to acquire ISO certification would develop into a major movement involving all citizens. Once a month, the study group members visited each other's plants, inspected waste management operations, and recycled waste paper to produce copy paper.

In July 2000, the study group reviewed its organization and operations and changed its name to the present one in light of its original mission and values, as the conventional loose organization could not meet the needs of the times. For the first time, a representative has been appointed and the steering committee and the secretariat were established. The focus has been placed on the activities of five subgroups classified according to the levels of members' activities. Now the study group comprises 22 entities, of which 10 have acquired the ISO 14001 certificate and 8 are now taking steps to do so.

In addition to encouraging local businesses to acquire ISO 14001 certification, both the subgroups and the study group as a whole are developing and operating the "Iida Version of Environmental ISO," which does not follow the examination and registration procedures that involve external examiners. The study group is also looking into the standardization of paper for recycling and the circulation of "eco-money." Now the group is attracting praise and attention as its activities are led by the private sector rather than municipal authorities.

6. Remaining Problems for Iida City

It has become apparent that as the first municipality to acquire ISO 14001 certification, Iida City has a heavier responsibility and a bigger role to play than expected. The city needs to establish "genuine" communication among its employees through basic training in energy conservation and the sorting of waste, so that they can exchange frank opinions even in the case of internal auditing. In this process, it may be a good idea for city employees to "enjoy" pressure from citizens, local businesses, and other municipalities. Through checks and corrective action, which have been insufficient so far, efforts to reform the municipal government amid the trend toward decentralization, and to enlighten city employees should be systematically incorporated into everyday operations.

The acquisition of the ISO 14001 certificate is just a starting point, since the scope of its application is limited. Iida City needs to make extra efforts to expand the scope of its activities through "IEMS 21" and "IEMS at School," so that the environmental management system will succeed in all relevant agencies and operations.

Environmental improvement cannot be made by one municipality alone. It is the responsibility of Iida to exercise leadership and support local businesses and neighboring municipalities in acquiring ISO certification as the trailblazer in Nagano Prefecture. It is urgently required to firmly establish the "Iida Version of the ISO environmental certification system," primarily endorsed by the Study Group on the Community-Wide Initiative for the Environment and ISO Certification. Among the many challenges now facing this "cultured eco-friendly city" are how to secure the budget for effective investment in environmental administration, as well as the successful implementation of the Tenryukyo Eco-valley Project."

(http://www.city.iida.nagano.jp/city/index.htm)

Results of Questionnaire to 20% Club Members

The help that the 20% Club members provided with answering the questionnaire this September was much appreciated. 40 members gave answers, and many constructive thoughts and comments were made with a return rate of 66% (Inside Japan:87%). The Secretariat hopes to incorporate them into future Secretariat operations, and to keep working on bettering the Club's activity policy. Following are the results from the questionnaire.

1. The role of the 20% Club for Sustainable Cities

"Information provider or information center" had the largest number of responses (36), followed by "International network of local governments" (21 responses), and "Guide for local governments toward sustainable efforts" (9). The Secretariat is considering the possibility of dispersing information through E-mail and workshops, along with the current homepage and newsletter.

2. The current activities of the 20% Club

The newsletter, case studies, and homepage were given satisfactory votes of 34, 36, and 27, respectively. Each also received votes for need for improvement: 3, 2, and 5 votes respectively. Improvement points such as "expanding current topics in the newsletters," "introducing progressive case studies of private agencies as well as those of local governments," "requiring all members to write up their experiences in articles," and "adding more useful information" were suggested. The Secretariat will examine these comments and endeavor to reflect them in future newsletter editing and homepage building.

3. How the 20% club should continue its activities

Many suggestions were made. There were opinions related to the resetting of targets, such as: "the fifth year should be a turning point where target setting is reviewed, targets reset, and new efforts made," "new targets should be set several years later than that," "measures should be decided in accordance with the status of achievement of goals." Ideas on activities were presented too: awarding recognition to members who have succeeded in reducing environmental impacts, publishing case studies, reporting on successful practices, training programs for municipalities in developing nations, target-setting and evaluation guides.

4. The collection of membership dues

31 members answered, "There should not be any membership dues," and 6 answered, "There should be some membership dues." Strong comments such as "paying membership dues is impossible" might have been easily foreseen considering the tight budget restrictions in local governments.

5. Areas which the 20% Club should focus on

Environmental education (23 votes), Wastewater management/water resource management (21), Partnership with citizens (20), Green purchasing (18), Environmental accounting, Environmental reports (17), Indicators to evaluate sustainability (17). The Secretariat hopes to incorporate these priorities into future activities.

Information Briefs for Sustainable Cities
-Environmental Reports-

Businesses are now actively putting effort into making environmental reports that disclose the impacts their activities have on the environment, and what they are doing to alleviate it.

Just recently, the "Fourth Annual Environmental Report Award" was announced (organized by the Global Environmental Forum). This award recognizes excellent environmental reporting. For the Special Recognition, Sendai City (a member municipality)'s “Leading Eco-Plan Sendai” Sendai Ecological Initiative-Project Report for Fiscal Year (April 1, 1999～March 31, 2000)” was selected. This year four local governmental reports were submitted, with municipalities such as Setagaya and Itabashi Wards in Tokyo having previously received the Environmental Action Plan Award.

Environmental report is supposed to be an effective tool to evaluate their own environmental action, and to disclose it for local governments.

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