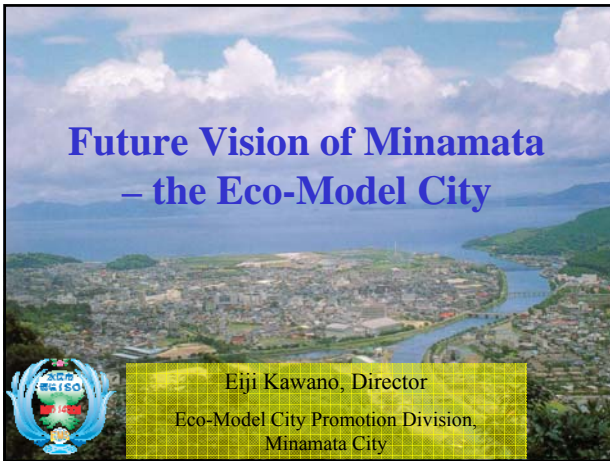
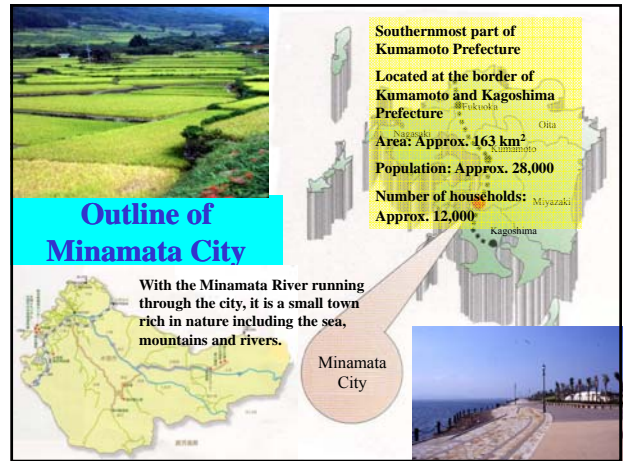


Future Vision of Minamata – the Eco-Model City



Eiji Kawano, Director
Eco-Model City Promotion Division,
Minamata City

Outline of Minamata City



Southernmost part of Kumamoto Prefecture
Located at the border of Kumamoto and Kagoshima Prefecture
Area: Approx. 163 km²
Population: Approx. 28,000
Number of households: Approx. 12,000

With the Minamata River running through the city, it is a small town rich in nature including the sea, mountains and rivers.

Definition of the Eco-Model City

Ideas for a sustainable small municipality model whose economy is in harmony with nature.

Current state of greenhouse gases

Emissions → **Slightly increased**

- Civilian sector → **Increased**
- Waste sector → **50% reduction**
- Industrial and traffic sector → **Remained at the same level**

Absorption → **Slightly reduced**

Four sectors requiring a reduction in greenhouse gases

A: Environmentally Friendly Living (Civilian sector)
B: Development of environmentally friendly industries (Industrial sector)
C: Development of a nature-oriented ecological town (Natural environment preservation sector)
D: Development of the city for environmental learning (Promotion of environmental awareness)

Target reduction rate of greenhouse gases

Base year 2005

2020 **-32%**

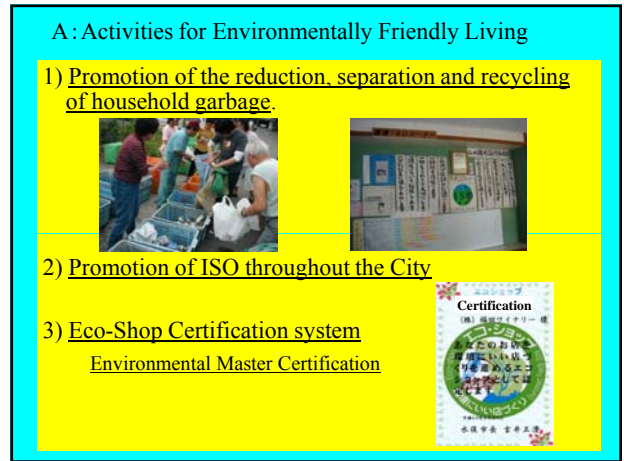
2050 **-50%**

Follow-up

- ★ Promotion activities and progress management based on the Action Plan
- ★ Data management, creation of a survey table on the status of gas emissions
- Cooperation among citizens, companies and local government

A: Activities for Environmentally Friendly Living

- Promotion of the reduction, separation and recycling of household garbage.
- Promotion of ISO throughout the City
- Eco-Shop Certification system
Environmental Master Certification



Promotion of the Reduction, Separation and Recycling of Household Garbage.



Current separation: divided into 22 categories with the cooperation of local residents.

(Recyclability: 40% → 90%)

- Declaration of "Zero-Waste" (defining a goal)
- Further separation and recycling (microelectronics products, used cooking oil, etc.)
- Promotion for reducing use of shopping bags (Carry-Your-Own-Bag Campaign)
- Promotion for "reusing" and "reducing" rather than recycling

Promotion of ISO throughout the City



Distribution of simplified ISOs

- New ISO for Households
- ISO for Schools
- ISO for Nursery Schools and Kindergartens (Conducting monthly "Energy-Saving Contests," etc.)


Eco-Shop Certification System
 Increase the current number of certified shops from 16 to 50
 Assessment by the Women's Liaison Conference on Waste Reduction



Certification for Environmental Masters
 Production of safe and hygienic foods and products
 Increase the current number of environmental masters from 25 to 60

B: Development of Environmentally Friendly Industries


- 1) Producing biomass energy using regional resources
- 2) Safe and reliable production in agriculture, forestry and fisheries
- 3) Development of a Second Eco-Industrial Housing Complex



Producing Biomass Energy Using Regional Resources



Utilization of regional resources (Citrus fruit waste, bamboo, food waste, etc.)
 ↓
 Production of bio-ethanol → E3 → Use of alternative fuels
 • Production of useful byproducts → Commercialization → Sale



Safe and Reliable Production in Agriculture, Forestry and Fisheries



Development of a "school lunch farm" service, expansion of allotment gardens, and establishment of morning markets and direct sales depots.
 ↓
 Promotion of local production for local consumption
 → Reducing food mileage


Eco-Town

Zero Emissions

- Recycling facilities for household electronic appliances
- Recycling facility for used oil
- Recycling facility for construction waste and asphalt
- Facilities for reusing and recycling bottles
- Recycling facility for food waste
- PET bottle recycling facility
- Facility for producing fertilizer from human waste

Minamata Environmental Techno Center

Development of a Secondary Eco-Industrial Housing Complex
Creation of new environmental businesses



C: Development of a nature-oriented ecological town

- 1) District Environment Agreement System
- 2) Development of a "Citizen's Forest" and "Kelp Forest"
- 3) Utilizing New Energy and natural energy



District Environmental Agreement System

Kagumeishi District Environmental Agreement

- We will preserve the waterfront, rivers and streamside forests, the habitat of fireflies and dragonflies.
 - We will not pollute water resources and will preserve riverside scenery.
 - We will ensure that districts save clean water.
 - As a rule, unless an agreement is made by Kagumeishi District, we prohibit quarrying in forests due to the risk of rock-falls, the outflow of soil and landslides. Quarrying from valleys is also prohibited to prevent the landscape from being spoiled and the outflow of soil caused by freshets.
- We will reduce the amount of household garbage and try to recycle it.
 - We will reduce over-packaging and try to take as little waste home as possible.
 - Under the slogan "mottainai", we will try to use things for as long as possible by repairing them.
 - When we dispose of recyclable garbage, we will make sure to separate it based on city guidelines.
 - We will make compost from garbage.
- We will take care not to cause disasters when we construct roads or cut down trees in the mountains.
 - We will guard the districts against illegal dumping.

Kagumeishi District Residents' Association (Environment Department)

Regulations and rules for residents regarding regional environmental preservation

↓

Current designated districts: 8 → In 2050: 15

Development of a "Citizen's Forest" and "Kelp Forest"

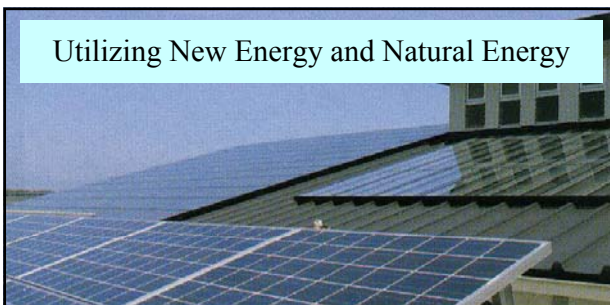


- Development of a "Citizen's Forest" and appropriate management for it → Expansion of forest lands
- Cultivation of seaweed and kelp, reconstruction of kelp farms → Revitalizing the sea with abundant marine plant life

↓

Maintaining and improving absorption levels of carbon dioxide

Utilizing New Energy and Natural Energy



- Encouraging the use of New Energy in public facilities and schools
- Financial assistance system for general households
- Establishing a system to promote use of the energy in business offices

↓

Promotion of an environmentally friendly community and living


D: Development of the City towards Environmental Learning

- 1) Improvement of Minamata Environmental University and Minamata Environmental Private School, etc.



- 2) Development of the Complete Village Living Museum

City Museum of Minamata Disease



- 3) Development of base facilities for environmental education

Improvement of Minamata Environmental University and Minamata Environmental Private School, etc.



Efficient programs, availability throughout the year, privatization

↓

Effective promotion by participants

Kagumeishi village Complete Village Living Museum

Study through the experience of nature, history, life, products, etc.

↓

- Increase in the number of designated districts → Promotion effects by visitors
- Instill confidence and improve the environmental awareness of residents in the districts



Development of Base Facilities for Environmental Learning




City Museum of Minamata Disease

Aimed at improving services in the facilities, the cooperation between them and developing the surrounding area.




National Minamata Disease Information Center

Kumamoto Prefectural Environmental Center

The "Eco-Model City" Minamata

A: Activities for Environmentally Friendly Living

- Improving energy saving, resource saving and recycling systems
- Changes in lifestyle
- Establishing and promoting environmentally friendly living systems
- Producing, using and promoting local resources

B: Development of Environmentally Friendly Industries

- Recirculation of resources, energy saving, resource saving
- Utilizing advanced environmental technologies
- Transferring to Clean Energy
- Producing biomass energy
- Safe and reliable production in agriculture, forestry and fisheries

C: Development of a nature-oriented ecological town

- Support for activities in mountainous and coastal areas
- Strengthening relations with the central town
- Cultivation of water resources and forests by the residents, revitalization of the sea
- Accelerate the absorption of carbon dioxide
- Use of natural energy

D: Development of the City for Environmental Learning

- Publishing the lessons of Minamata Disease
- Promotion effects inside and outside the city by developing personnel
- Development of a base for environmental learning
- Establishment of natural environmental learning and excursion programs

Coordination and promotion

Residents

Government Companies

Planning, Data management, Progress management

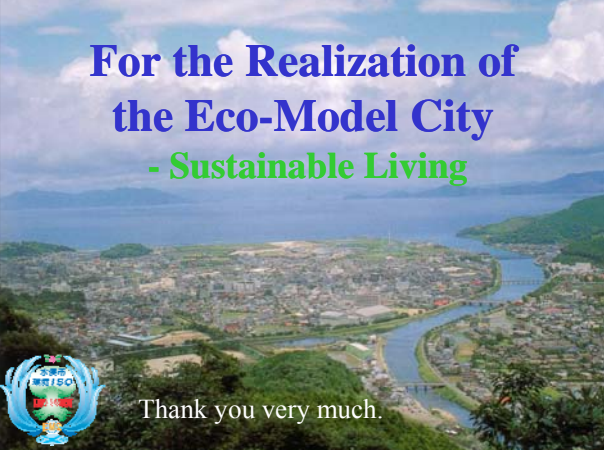

Reduction in greenhouse gases

Creating local energy resources

Creating a sustainable local community whose economy is in harmony with nature.

For the Realization of the Eco-Model City

- Sustainable Living

Thank you very much.