
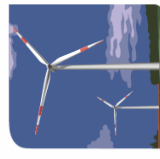





<p>Survey Report Promising Environment Technologies of the Northern Kyushu Region</p>  <p>February 18, 2009 Hidetoshi YOSHIMURA The Univ. of Kitakyushu</p>	<p>Overview of the Industrial Economy of Northern Kyushu</p> <ul style="list-style-type: none"> <li>• Area: 25,000 km<sup>2</sup></li> <li>• Population: 10 million</li> <li>• GDP: ¥35.6 trillion (roughly \$395 billion)             <ul style="list-style-type: none"> <li>◦ Rivals that of Switzerland, Belgium and Sweden</li> </ul> </li> <li>• Value of industrial shipments:             <ul style="list-style-type: none"> <li>◦ ¥18.1 trillion (roughly \$200 billion)</li> <li>◦ Major industries: automobiles, semiconductors and food products</li> <li>◦ Next-generation industries: energy and the environment</li> </ul> </li> <li>• Quality of life: Historical structures, abundant natural beauty, rich food culture and a mild climate</li> </ul>
<p>Special Initiatives in the Northern Kyushu Area</p> <p>Fukuoka City</p> <ul style="list-style-type: none"> <li>• Eco Hustle Projects             <ul style="list-style-type: none"> <li>◦ Establishment of a 'Citizens' Environmental Fund' financed by the imposition of fees on garbage bags.</li> <li>◦ Initiatives aimed at environmental conservation and greater understanding of the environment amongst citizens are subsidized.</li> </ul> </li> <li>• Semi-Aerobic Landfill Systems             <ul style="list-style-type: none"> <li>◦ Encourages fast stabilization of reclaimed land and purification of seepage water</li> <li>◦ Successfully introduced overseas to such countries as Malaysia and China</li> </ul> </li> </ul>	<p>Kitakyushu City</p> <ul style="list-style-type: none"> <li>• KITA (Kitakyushu International Techno-Cooperative Association) in 1985</li> <li>• the Eco-Town Project in 1997             <ul style="list-style-type: none"> <li>◦ A buildup of recycling businesses</li> <li>◦ Development of leading experimental studies in environmental technology</li> </ul> </li> <li>• a basic research base within the Kitakyushu Science and Research Park in 2001             <ul style="list-style-type: none"> <li>◦ Comprehensive support for activities ranging from basic research to demonstration tests and commercialization</li> </ul> </li> <li>• the Eco-Model City in 2008</li> </ul>

<p><b>Saga Prefecture</b></p> <ul style="list-style-type: none"> <li>• <b>In the ceramics industry and agriculture</b> <ul style="list-style-type: none"> <li>◦ The development of ceramic firing techniques that result in lessened CO<sub>2</sub> emissions</li> <li>◦ The utilization of biomass energy to grow greenhouse <i>mikans</i> (Japanese tangerines)</li> </ul> </li> <li>• <b>The application of fees to the processing of waste in all municipalities within the prefecture</b> <ul style="list-style-type: none"> <li>◦ The daily per capita output of household waste is the lowest in Japan</li> </ul> </li> <li>• <b>The rate of residential solar power generation ranks as the highest in Japan</b></li> </ul> 	<p><b>Nagasaki Prefecture</b></p> <ul style="list-style-type: none"> <li>• The environment and new energy sources are a top priority for the prefecture.</li> <li>• The creation of <b>networks</b> made up of the government, academia and the private sector <ul style="list-style-type: none"> <li>◦ About 100 companies participate in the network.</li> </ul> </li> <li>• Environmental technology features: <b>water treatment, new energy sources</b></li> <li>• The prefecture has opened an office <b>Shanghai</b> and is proactively technological exchanges.</li> </ul> 
<p><b>Minamata City</b></p> <ul style="list-style-type: none"> <li>• <b>Waste separated into 22 types</b> <ul style="list-style-type: none"> <li>◦ Introduction of biodegradable plastic garbage bags for kitchen waste</li> <li>◦ Profits from recovery activities are returned to the region <ul style="list-style-type: none"> <li>• Separation of aluminum and steel cans</li> <li>• Compost made from kitchen waste</li> </ul> </li> </ul> </li> <li>• <b>Recognition of Eco-Town and Eco-Model City status by the government</b> <p style="text-align: center;">↓ ↓ ↓</p> </li> <li>• <b>A sense of pride in being a top-tier environmental model city</b></li> </ul> 	<p><b>Oita Prefecture</b></p> <ul style="list-style-type: none"> <li>• The transmission &amp; matching of environmental business information <ul style="list-style-type: none"> <li>• Participation by 24 companies within the prefecture</li> <li>• Faculty of Oita University coordinate matching efforts</li> </ul> </li> <li>• <b>Hita City: biomass power generation using kitchen waste and other organic matter</b></li> <li>• <b>Tsukumi City: creation of solid fuel from refuse</b></li> <li>• <b>Distribution of an Energy Conservation Check Sheet to households</b></li> </ul>  <p style="text-align: right; font-size: small;">Biomass Power Generation Center in Hita City</p>

<p><b>Common Efforts by Local Governments</b></p> <ul style="list-style-type: none"> <li>• <b>Recognition of recycled products, etc.</b> <ul style="list-style-type: none"> <li>• Creation of print materials for promotional purposes</li> <li>• Local governments take the initiative in introducing these products → Desirable results are achieved</li> </ul> </li> <li>• <b>Financial support in the form of loans &amp; subsidies</b> <ul style="list-style-type: none"> <li>• Installation of environmentally-friendly equipment</li> <li>• R &amp; D for environmental technology</li> </ul> </li> <li>• <b>Dispatching of environmental education advisors</b></li> </ul> 	<p><b>An Aid Organizations for Environmental Industry</b> <i>'Kyushu Recycling and Environment Industry Plaza; K-RIP'</i></p> <ul style="list-style-type: none"> <li>• Cooperative organization for individuals in the environmental and recycling industries <ul style="list-style-type: none"> <li>◦ Number of members:500</li> </ul> </li> <li>• <b>Activities;</b> <ul style="list-style-type: none"> <li>◦ Providing information,</li> <li>◦ personnel development,</li> <li>◦ support for commercialization</li> </ul> </li> <li>• <b>Serving as a contact point for overseas development</b></li> </ul>
<p><b>In Conclusion</b></p> <ul style="list-style-type: none"> <li>• While there is an abundance of promising technology in the northern Kyushu region, this technology remains largely under-utilized.</li> </ul> <p style="text-align: center;">↓ ↓ ↓</p> <ul style="list-style-type: none"> <li>• Unification of information</li> <li>• Creation of a system that is better able to respond to a broad range of needs</li> </ul> 	

⑩ 北部九州地域の事例紹介  
 ・ 水俣市

 <p><b>Joint efforts by Citizens and Local government in Minamata city</b></p> <p>Mitsuru Ichigozaki Deputy Division Chief of Eco-Model City, Minamata City</p>	<p><b>Brief Overview of Minamata City</b></p> <p>Location: Farthest south of Kumamoto Pref.              Pref. border with Kagoshima</p> <p>Area : 162.87 Km<sup>2</sup>              Population : Approx. 28,400              Family : Approx. 12,000</p>  <p>City of Kitakyushu              Fukuoka              Oita              Myazaki              Kumamoto              Kagoshima              Saga              Nagasaki</p> <p>Minamata City</p> <p>"Hot spring" Sea side              "YUNOKO"</p> <p>"Hot spring" Mountain side              "YUNOTSURU"</p>
<p><b>Minamata Disease</b></p> <p>Officially conformation : May 1, 1956              Officially certified patients : 2,268 persons              (including 1,655 of dead)              As of Dec. 31, 2008</p>  	<p><b>Relief of victims and reconciliation of citizens</b></p> <ul style="list-style-type: none"> <li>• Reconciliation, prayer, reunion</li> </ul> <p><b>Learning from Minamata Diseases and transmission of information</b></p> <ul style="list-style-type: none"> <li>• Environmental education</li> <li>• Storyteller</li> </ul> <p><b>Eco-friendly urban development</b></p> <ul style="list-style-type: none"> <li>• Waste reduction and recycling</li> <li>• Women's liaison conference on waste reduction</li> <li>• Eco-town</li> <li>• Environmental ISO</li> <li>• Environmental Master (Meister)</li> <li>• Minamata Prize for the Environment</li> </ul>



## Separated collection



March, 1993 : Initiation at model area  
 April, 1993 : Implementation at all area ( 20 separation )  
 City Government officers handled daily collection  
 ( 11名 総市 )  
 November, 2001 : Reuse of 1 liter liquor bottle ( 24 separation )  
 ( 24 separation )  
 April, 2004 : Reuse of 1 liter liquor bottle ( 24 separation )  
 April, 2004 : Reexamination of separation ( 22 separation )

## 22 waste separations by citizens



Community residents are cooperating each other for own waste separation. Junior high-school students are also assisting.

## Women's liaison conference on waste reduction

- It is composed of 16 association in City
- How can reduce waste from household



## Environmental Master (Meister) 28 Persons

Minamata experienced tragic Disease, for the reason, we can produce safety and security goods with Minamata brand, cold-shouldered in the past





- Accreditation of ISO 14,000 (February, 1999)



Minamata original  
Environmental ISO

**Household version ISO**

**School version ISO**

**Business version ISO**

**Hotel & Inn version ISO**

**Kindergarten version ISO**



- ISO14001 Advertisement (September, 2003)

Audit by city audit team



Waste separation  
experience center

Reexamination  
work for items



Graphic out of the results



Campaign for save  
electricity

## Eco-town

Zero-emission

Waste plastic recycling facility

Used oil recycling facility

Home appliance recycling facility

Glass bottle reuse and recycling facility

Construction waste recycling facility

Food scrap recycling facility

PET bottle recycling facility

Fertilizer production plant from human waste

Minamata environmental technology center

Area assignment for the creation of  
environmental business

February, 2001



## Training course for oversea participants, such as JICA



Minamata Prize for the Environment

MINAMATA PRIZE FOR THE ENVIRONMENT

環境水保賞授

Minamata Environmental University