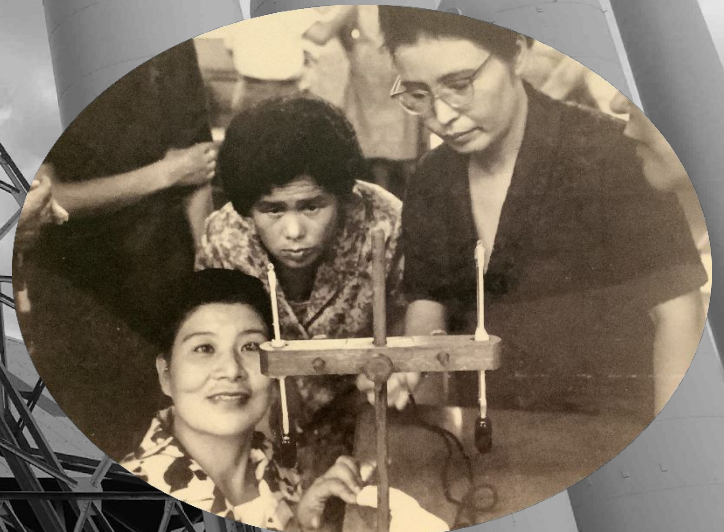


Kitakyushu Higashida Hydrogen Town: Conquest of pollution to SDGs Future City



NPO Satoyama
Yoshimasa Ito

*The 3rd Kitakyushu SDGs Training
Mar. 15, 2022*

Kitakyushu Hydrogen Town Project

2010-2016: Conducted the project in which hydrogen is supplied to households, public facilities, stores, etc. through a pipeline to evaluate the safety and stability of hydrogen and hydrogen fuel cell.

2020-2030: Try to expand use of hydrogen and introduce the hydrogen power generation and establish a large-scale hydrogen supply system.

Until 2040: Try to establish the CO₂ free hydrogen supply system.

But Why Hydrogen?

- Hydrogen is very clean and earth friendly source of energy.
- Kitakyushu area developed with the steelworks.

A low-angle photograph of an industrial facility. In the center, a tall, complex metal structure, possibly a blast furnace or converter, is labeled with the number '1901' in a white box. To the right, several large, cylindrical storage tanks are visible. The sky is blue with scattered white clouds. The overall scene depicts a large-scale industrial operation.

1) The steelwork produces hydrogen as a waste

2) By working with the steelwork, the project installed the 1.2km hydrogen pipeline from the steelwork to the town.

But Why Kitakyushu city is committed to the earth friendly energy?

Air and Water Conditions of Kitakyushu in 1960s



There was no blue sky because of smoke came out from factories.

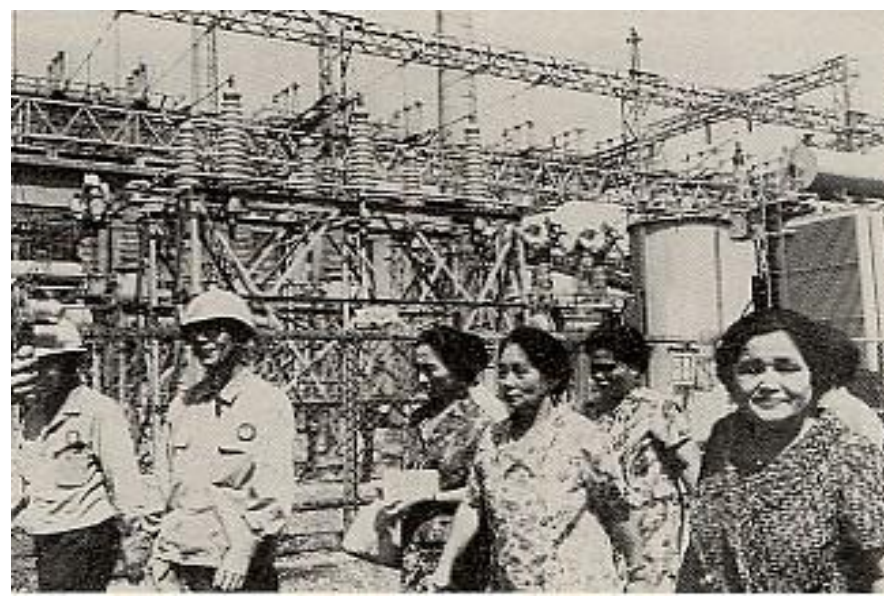


Water turned to red because of wastewater from households and factories. No living organisms.





Learned a way to measure air pollution



Inspected equipment at local companies



Sent letters to the city council and companies



Made a documentary film titled "We want blue skies"

Companies' responses

Shifted to resource and energy saving production process and significantly reduced pollutants and waste.



The city's responses

Made a regulation that was stricter than the national regulation.



Organized a system to monitor the air and water conditions for 24 hours.



Air and Water Conditions of Kitakyushu in 1990s



**We now enjoy blue sky and blue water.
No serious pollution anymore.**

**Local Government Honours Programme
of the
United Nations Conference on Environment and Development**

**Rio de Janeiro, Brazil
June 1992**

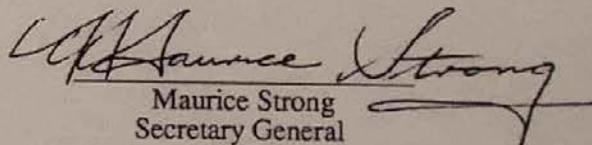
*In special recognition of the contribution made
to sustainable development and to the protection of the environment of this planet,
the United Nations Conference on Environment and Development hereby presents honours to*

Kitakyushu City, Japan

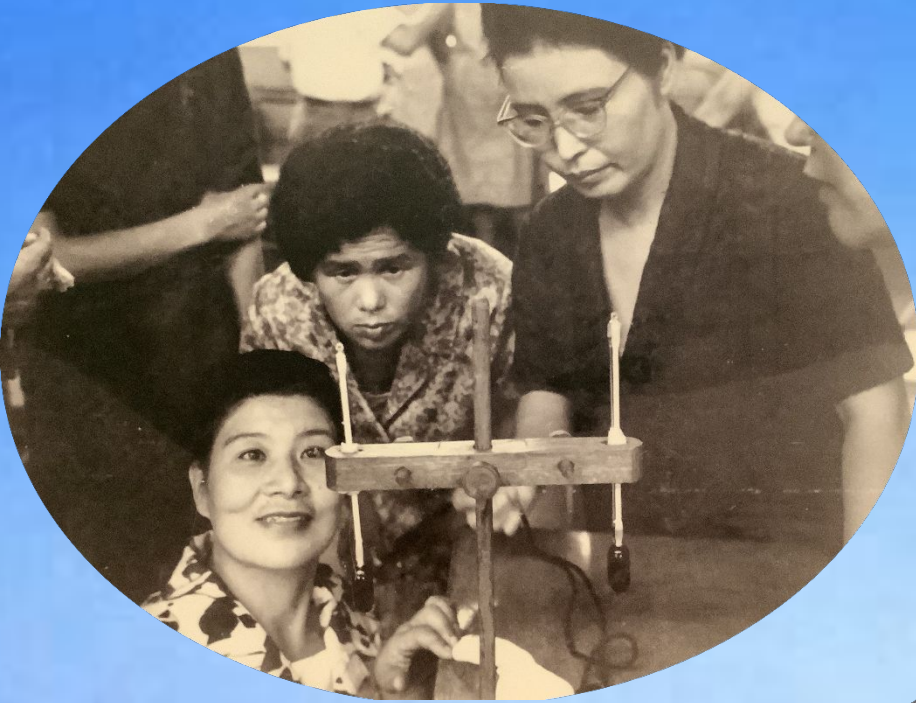
*and its citizens and partners from the private, public, and non-governmental sectors
for successful implementation of*

From the "Sea of Death" to International Environmental Leadership

*as one of twelve finalists in a special global competition
honouring local initiatives to address the environment and development challenges of the 21st century.*


Maurice Strong
Secretary General
UNCED

Paying It Forward to The Future



Is Hydrogen Used in Real Life?



More than 30 hydrogen fuel cell cars are running in Kitakyushu City



2 hydrogen station in the city.



Is Hydrogen Used in Real Life?



The Olympic flame for the Tokyo Olympic game used hydrogen provided by pipeline.

Is Hydrogen Used in Real Life?

◆ Initiatives of the Olympic and Paralympic Village Area Energy Project

A hydrogen station, hydrogen pipelines, and pure hydrogen fuel cells will be installed to supply hydrogen to fuel cell buses and other vehicles, and to blocks through pipelines. In February 2018, a basic agreement was concluded with six companies represented by Tokyo Gas Co., Ltd (Tokyo Gas Co., Ltd., Harumi Eco Energy Co., Ltd., ENEOS Corporation, Toshiba Corporation, Toshiba Energy Systems & Solutions Corporation, and Panasonic Corporation), commencing the project.

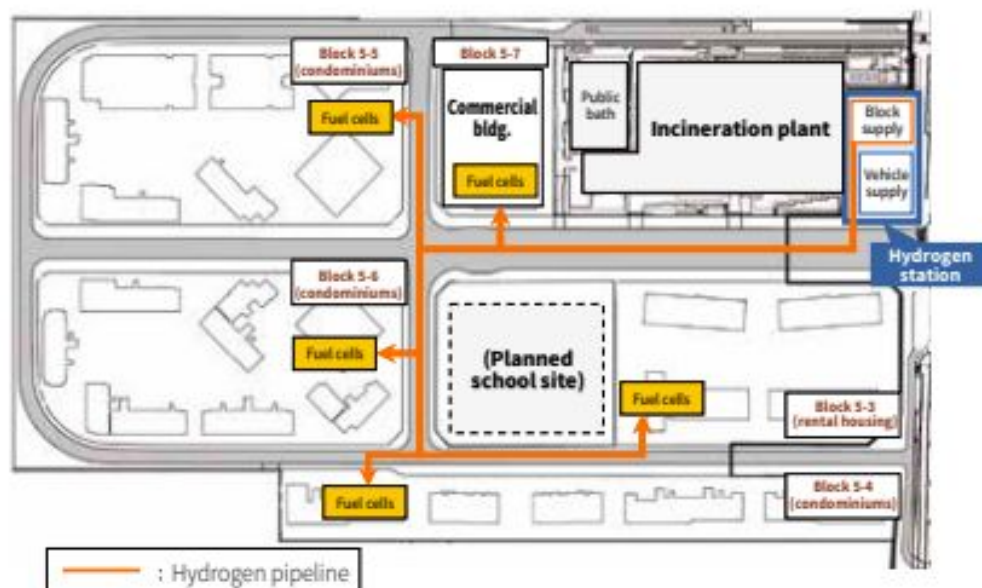


Image of hydrogen pipeline installation



Hydrogen supplied to fuel-cell buses and vehicles



Hydrogen station (image)

1. The Olympic and Paralympic Village district indicates the "Olympic and Paralympic Village and its surrounding area during the Olympic and Paralympic Games Tokyo 2020" (Source: Olympic and Paralympic Village Area Energy Development Plan, Mar. 2017)

**Thank you very much
for your attention!**



1.4 t (0.14 t/m²/月) Dustfall value 7.6 t/km²/mo.