City of Hiroshima
広　島　市

KAE　MURAKAMI
Energy and Global Warming Prevention Department
Environment Bureau
The City of Hiroshima

村上　加枝
広島市環境局エネルギー･温暖化対策部企画課

Hiroshima: A City of Peace

Hiroshima City was the first city to suffer the devastating power of an atomic bomb. It transcended this catastrophe and continues to appeal to the citizens of the world to work for peace.

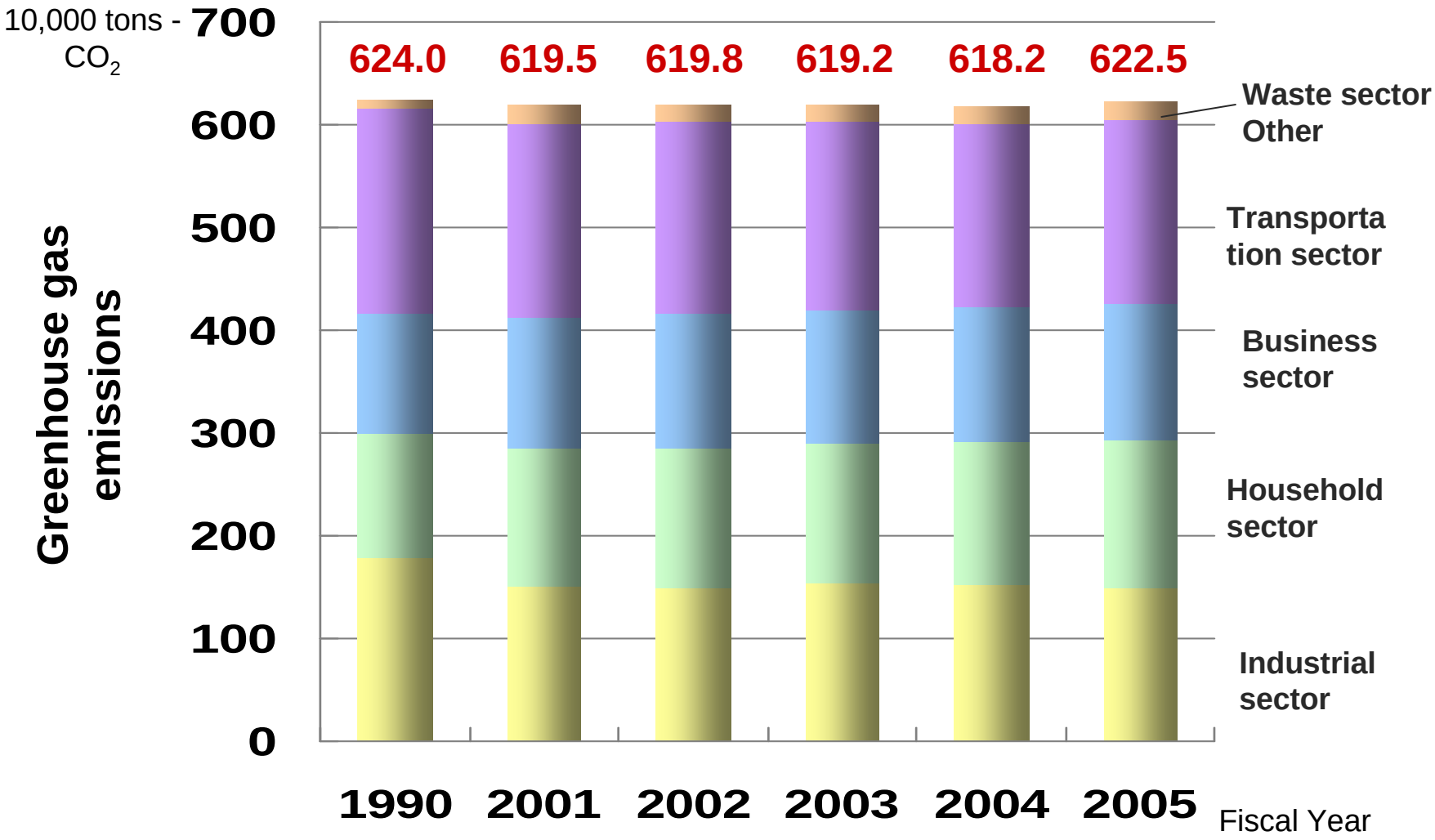
Hiroshima: Hub in the Western Part of Japan

We have a population of over one million residents and have become a hub for economy, culture and politics in the Chugoku-shikoku region of Japan.

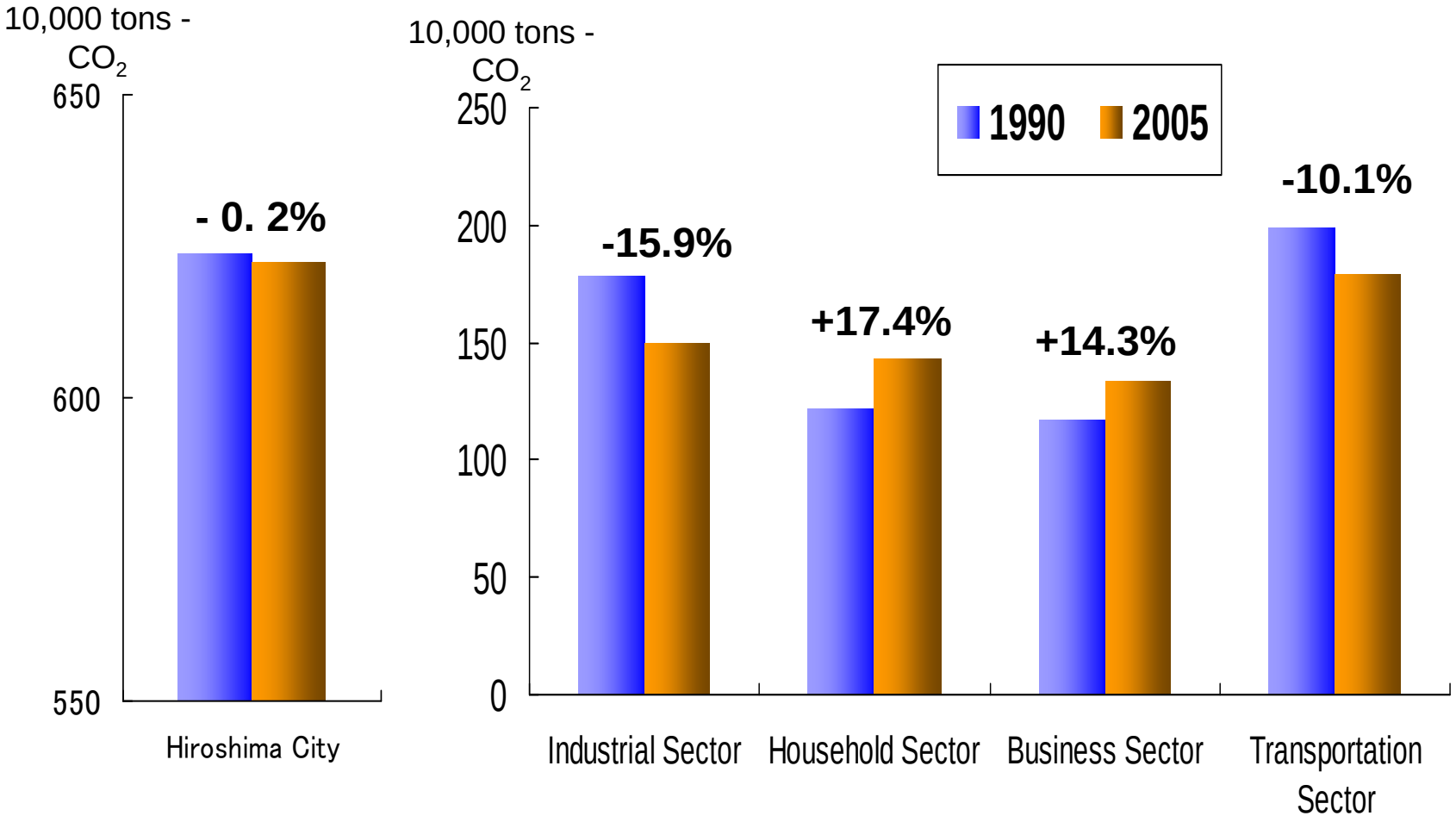
Hiroshima's Natural Landscape

Hiroshima is blessed with a rich, abundant natural environment. Six rivers flow down from the verdant mountains, through the city and out to the Seto Inland Sea. We consider Hiroshima to be an Aqua polis.

Emissions of Greenhouse Gases in Hiroshima City



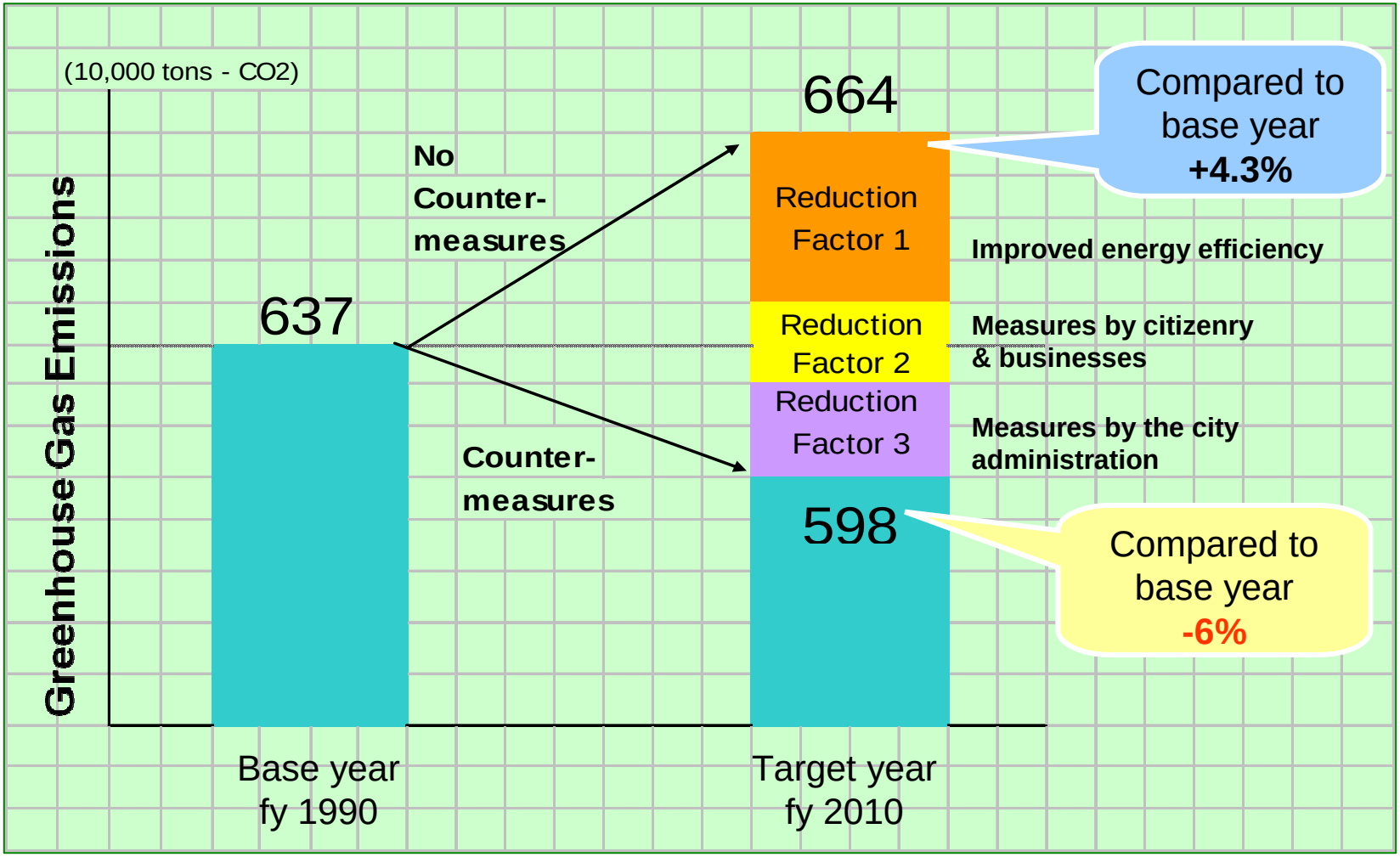
Emissions of Greenhouse Gases in Hiroshima City (Comparative Status)



Hiroshima City Global Warming Countermeasures Regional Promotion Plan

Established May, 2003

Greenhouse Gas Reduction Target for Hiroshima City: 6%



Achieving a 6% Reduction in Greenhouse Gases

Reduction Factor 1

Improved energy efficiency

Reductions of emissions in the home and office made possible through energy conservation. This will be achieved through upgrading to energy-efficient technology such as top-runner systems available for air conditioners, refrigerators, lights, TVs in homes and offices, as well as automobiles.

CO_2 reduction
439,100 tons

Reduction Factor 2

Measures taken by citizenry & businesses

Reductions of carbon dioxide through energy-saving measures during household and business activities and when using vehicles.

CO_2 reduction
154,600 tons

Reduction Factor 3

Measures by the city administration

Reductions of carbon dioxide through promoting Hiroshima City Hall Environmental Protection Action Plan and introducing equipment at waste incineration plants that generates power through burning waste.

CO_2 reduction
63,200 tons

Hiroshima Carbon Minus 70

February 2008

To keep the effects of global warming within acceptable levels, it is necessary to prevent the average global temperature from rising 2°C

In order to prevent the average global temperature from increasing 2°C, it is necessary for developed nations, including Japan to reduce emissions of greenhouse gases by 60 - 90% by fiscal year 2050.

70% reduction of Hiroshima City's greenhouse gas emissions by fiscal year 2050 (compared to fiscal year1990)

50% reduction of Hiroshima City's greenhouse gas emissions by fiscal year 2030 (compared to fiscal year1990)

Considering an ordinance for the prevention of global warming (planned for 2009)

Business Activities

●Training energy conservation advisors to run consultation services for home and office

●Development of carbon offset plans

Transportation

●Lanes for eco-friendly vehicles

●Promoting low-emission vehicles

● Promoting alternative fuels

●Attracting hydrogen stations

●Cycling City Hiroshima

Household Activities

●Encouraging residential upgrades （solar power, solar thermal conversion, housing insulation, double pane glass）

●Elimination of incandescent lights

●Reduction of plastic shopping bags

●Partnerships with the media & NPO

City Activities

●Energy conservation in city hall（lighting）

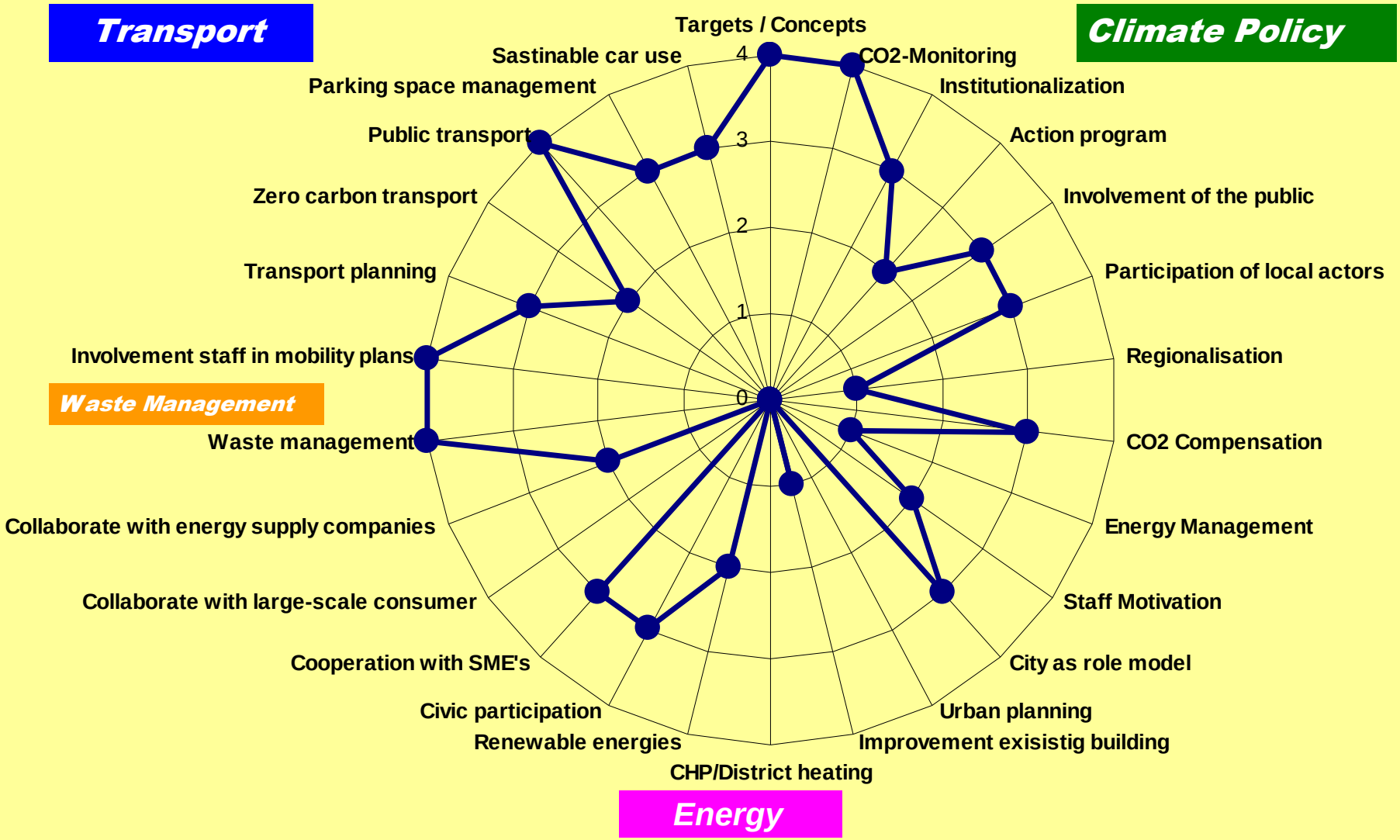
●Installing solar power in public facilities

●Rainwater cisterns, greenery on walls

●Facilitation of alternate fuel vehicles

●Energy conservation standards in city owned buildings

ACTIVITY PROFILE —HIROSHIMA—



Strengths

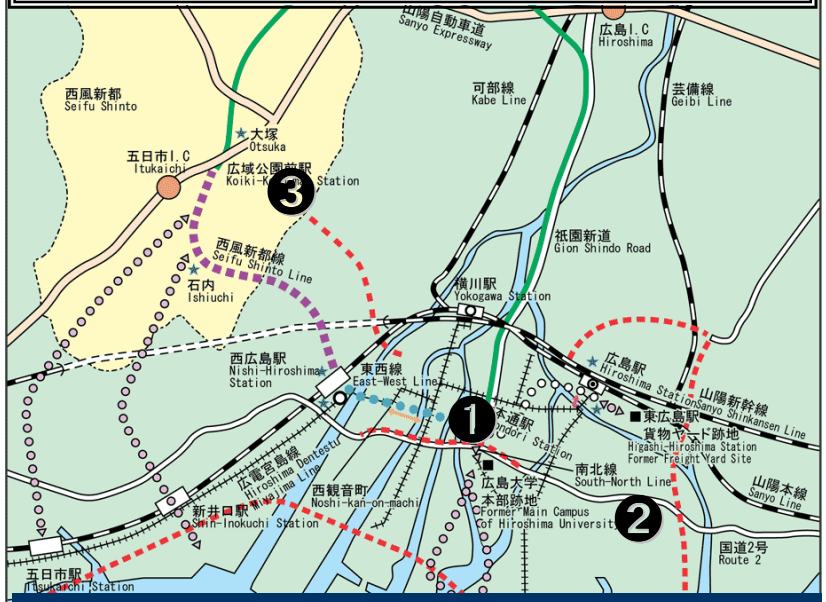
Activities	Contributing Factors
Carbon Dioxide Monitoring	・We have setup CO_2 concentration monitoring stations in the city to promote CO_2 awareness.
Waste Management	・1976: Hiroshima was the first major city in Japan to initiate a five category garbage separation system.（Hiroshima has the lowest waste disposal amounts per person among all government-designated cities in Japan.） ・Hiroshima citizens and companies have considerable awareness and concern for environmental issues, thus increasing our potential for progressive efforts.
Sustainable Transportation Planning	・Hiroshima City has created strong building blocks for transportation in the Ota River delta. ・The city has established an environmentally friendly public transportation system, such as streetcars and new transit system called the Astramline.

Good Practice1: CO_2 Monitoring

CO_2 Awareness

CO_2 concentrations are measured in specific locations in the city. The amount of CO_2 is displayed in City Hall and the Hiroshima Children's Museum.

CO_2 Concentration Monitoring Stations



① **Central downtown location**
② **Near a major road**
③ **Out in the countryside**

CO_2 Monitoring Display

Display 1

Monitoring stations have been installed at three locations:

A central part of the City
Next to a national highway with high traffic volume
In a suburban area with low traffic volume

This display makes it possible to compare modern day and 18 century emissions.

Display 2

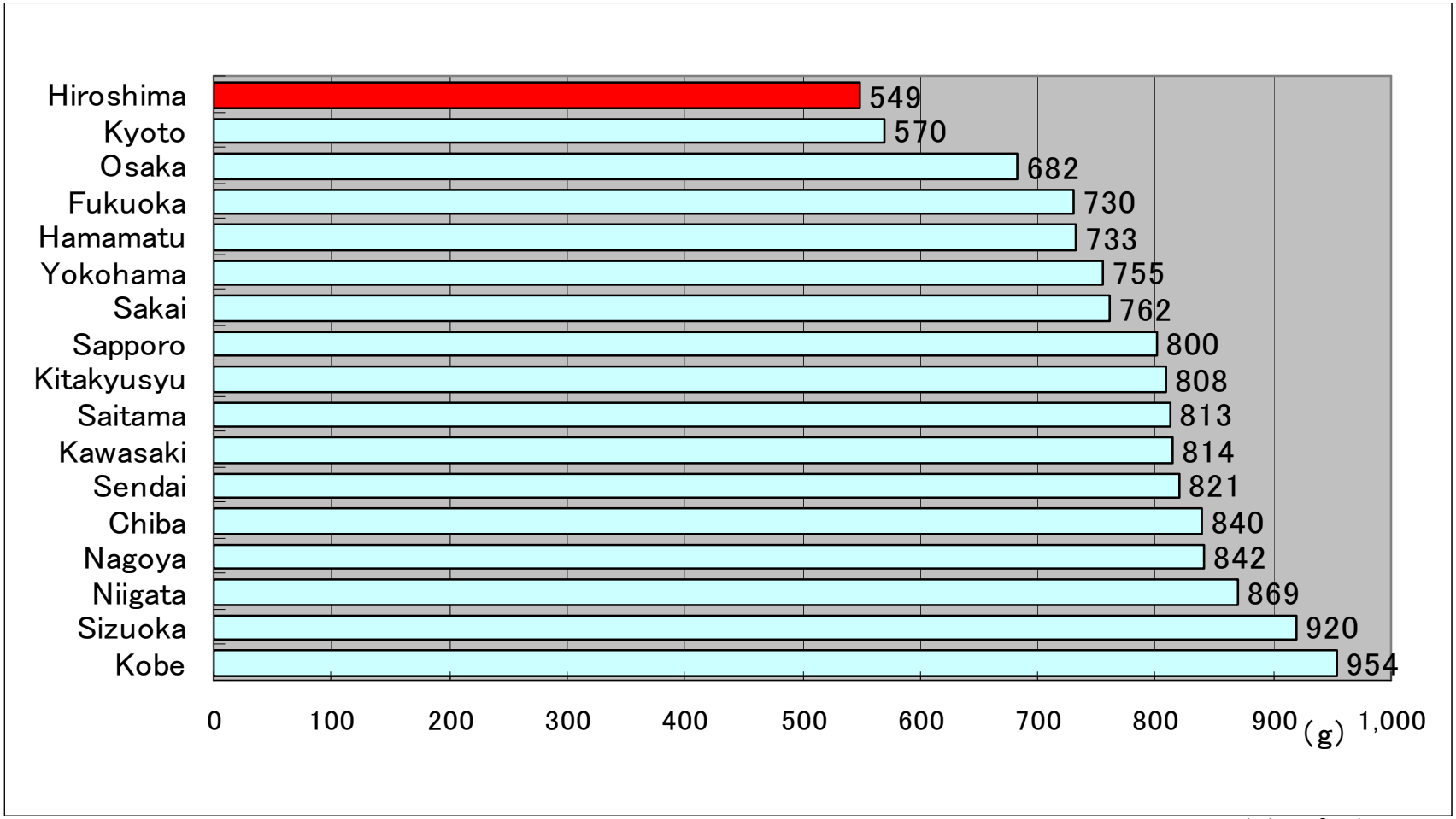
This graph shows the changes in CO_2 concentration of the previous day.

Display 3


2007年4月12日 16:47
広島市からのお知らせ
Cut CO_2 through not using Standby Power
Standby Power is the setting on electrical equipment whereby the appliance is ready to be quickly turned on by remote control or timer settings. This function can often be found on TVs or video/DVD players. However, setting an appliance in standby uses energy.
Take just a little time to think about it. There are certainly appliances you don't use very often. Consider unplugging them when not in use. Through doing so, one household can reduce their carbon footprint by 90 kg per year. This will also amount to a savings of about 3,300 yen for you.

Good Practice 2: Waste Management

Amount of Household Waste Disposed of Daily per Citizen



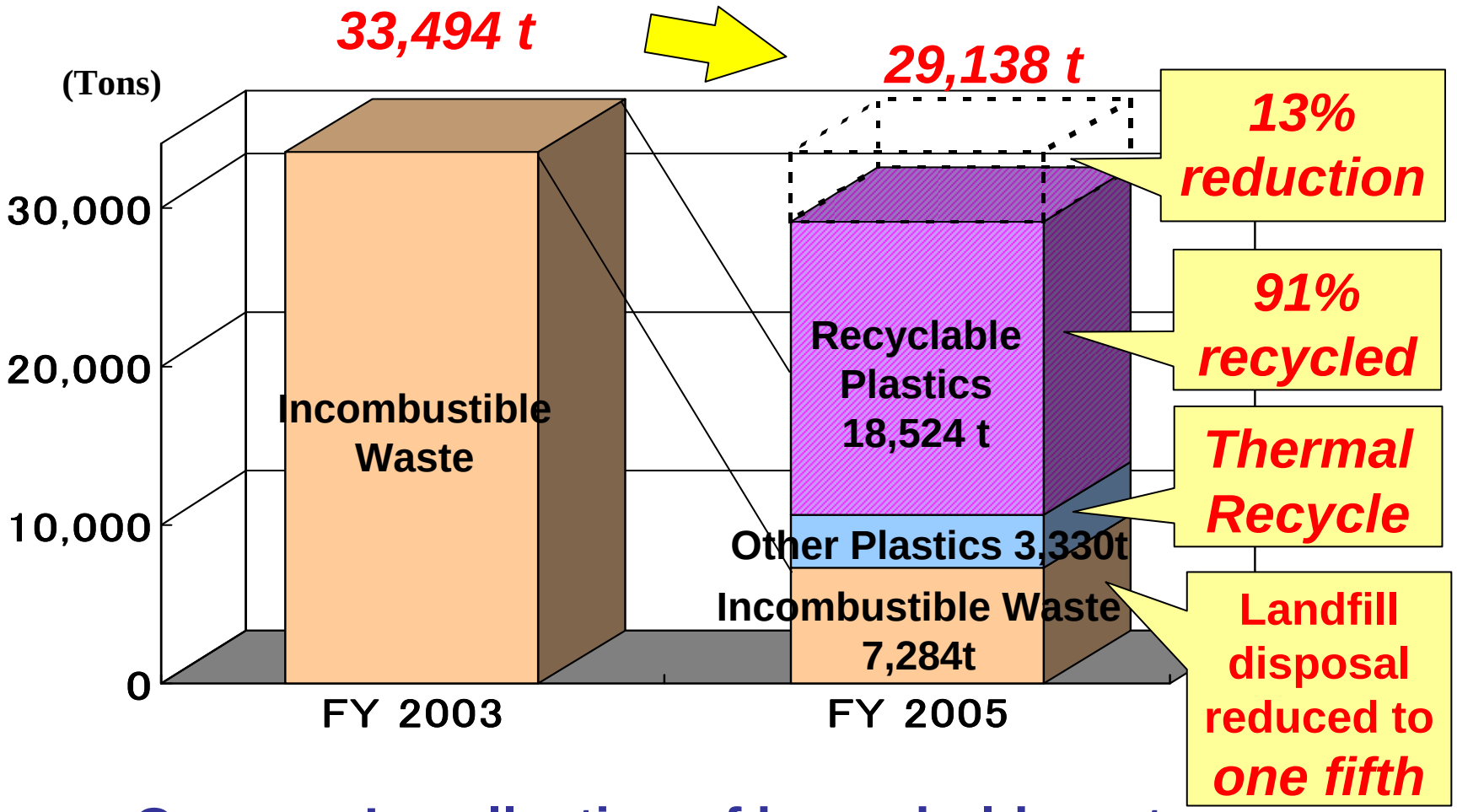
(g/per day/per person)

Japan Ministry of the Environment,
Survey on the Disposal of General Waste FY 2005

“Hiroshima 8”

- 8 Categories for Household Waste Disposal -

Results of “Hiroshima 8” Waste Disposal Policy



One year’s collection of household waste

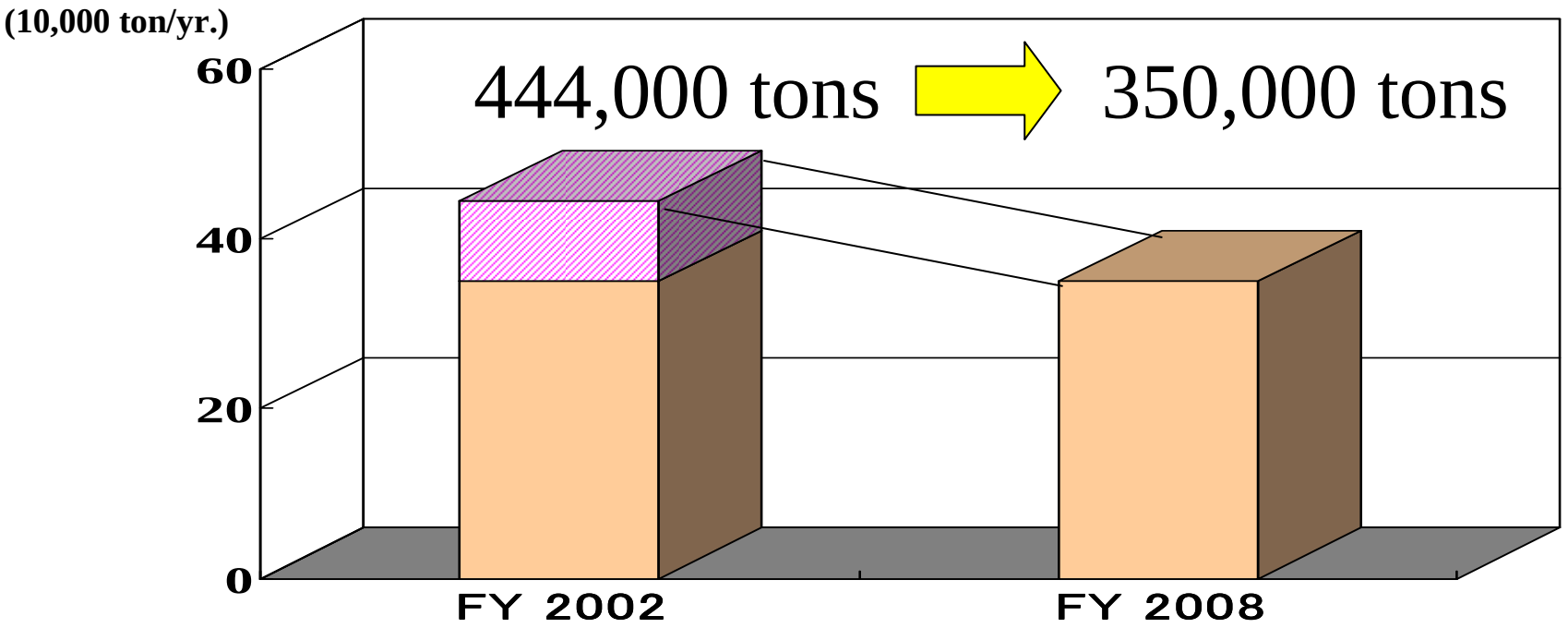
Toward Zero Emissions in the City of Hiroshima
Waste Reduction Program
– A Declaration by 1.1 Million People –

City residents, the private sector and the local government are working together on our 8 challenges to achieve three goals.

(Established in July, 2004)

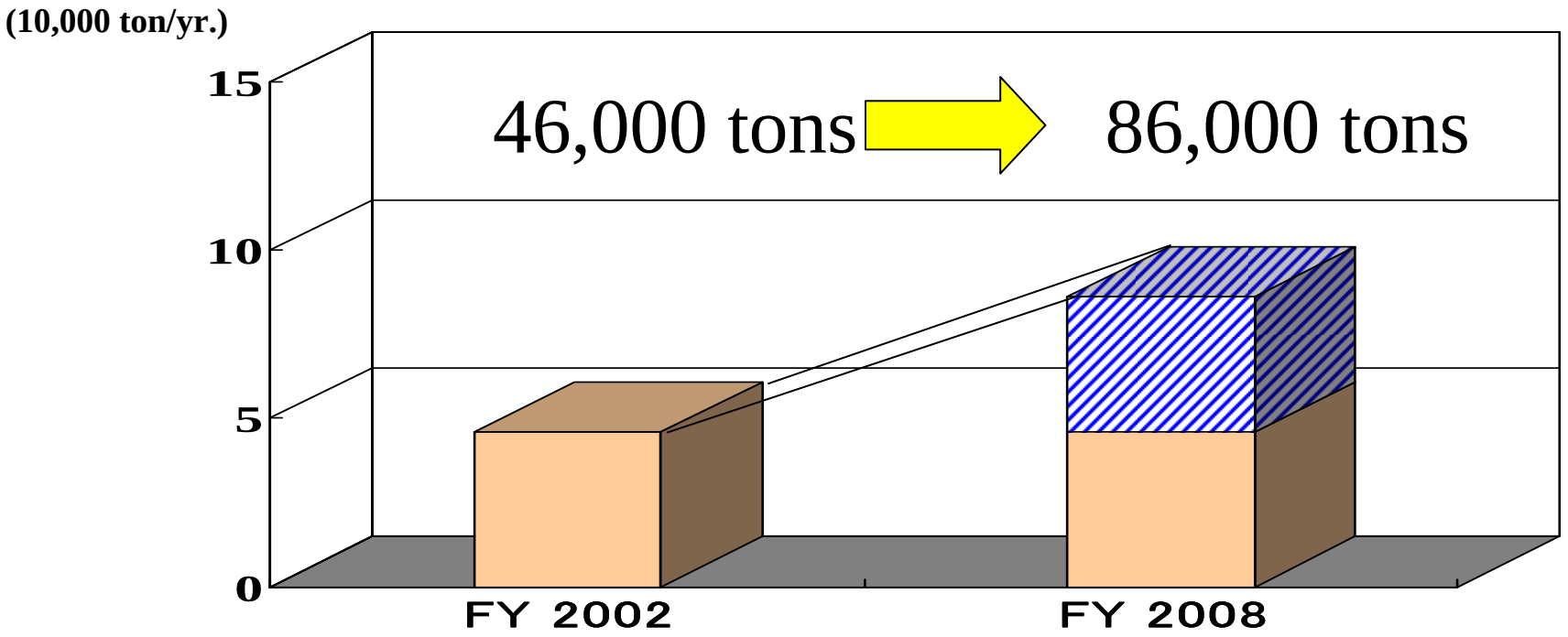
Goal 1: Reduce the Total Amount of Disposal

Lifestyle innovations will reduce the total amount of disposal by 20% or more.



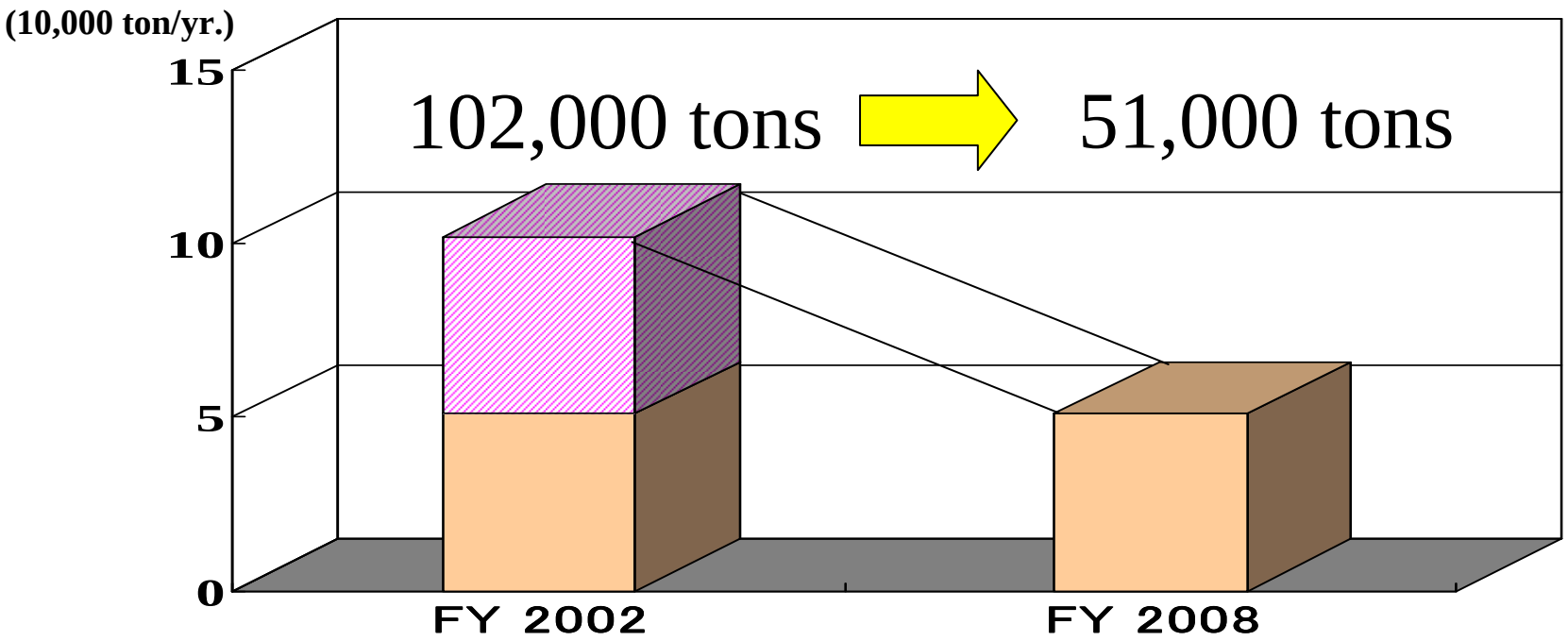
Goal 2: Increase the Amount of Recycling

Thorough compliance with the waste collection system will nearly double the amount of recycling.



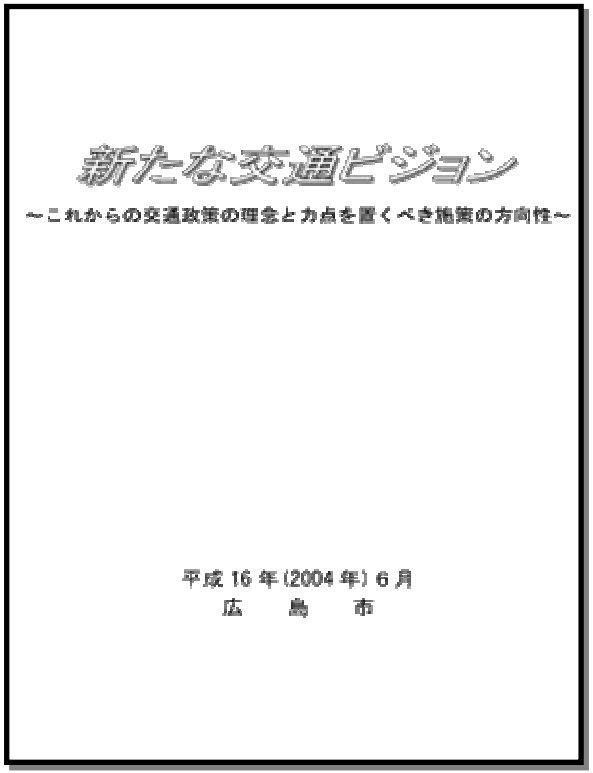
Goal 3: Reduce the Amount of Landfill Disposal

The reduction and recycling of waste will reduce the amount of landfill disposal by up to 50%.



Good Practice 3: Transportation Planning

Future Transportation Vision
comprehensive concepts and policies



Established in June 2004

Public Transport Infrastructure for Everyone

Strengthening the public transport network

Upgrading public transport services

Improving connections between different public transportation services

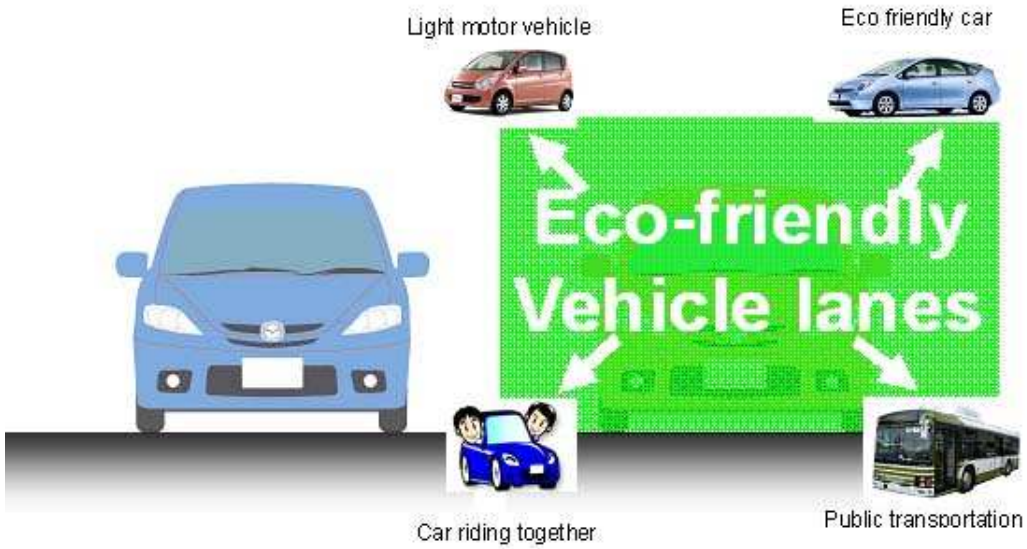
Putting express bus services in operation

Upgrading several of our streetcars to LRT

Improving public transport nodes

Encouragement of alternative means to automobile, promotion of traffic demand management measure

Eco-friendly vehicle lanes



Eco-friendly roadways

Cycling City Hiroshima

Improving cycling routes

Weaknesses

Inadequate policies directed at energy efficiency

Proposed Activities	Contributing ... tors to our weakness
Improve energ... fficiency as a ... basic principle ... planning	... energy
Renova... the industr...	... the ... ased new and ... newable
Enco... CHP and distr... cooling system	... uate long-term vision for urban planning

Improvement of energy policies

<u>We must</u>

Collaborate with energy companies

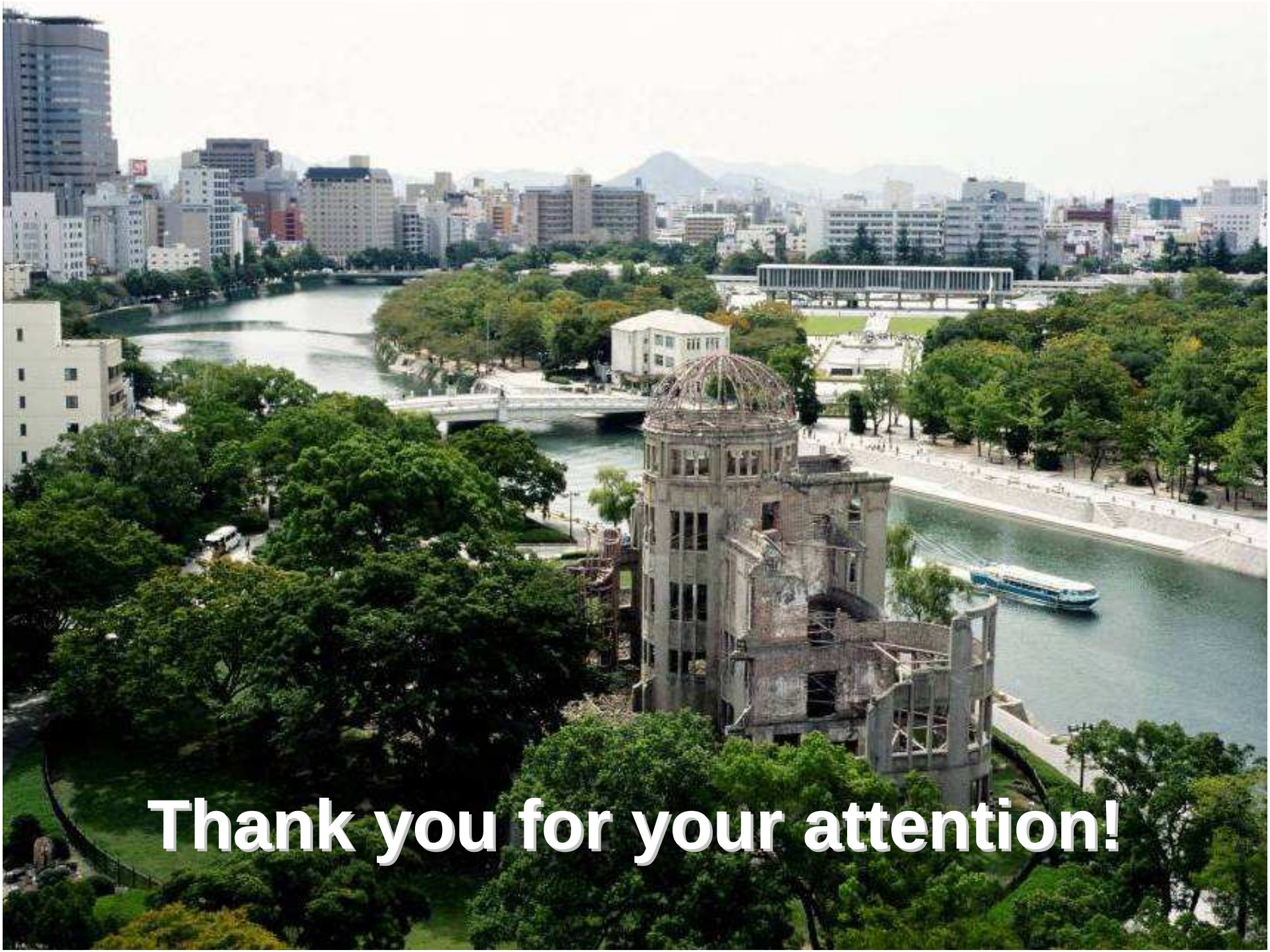
Define energy efficiency as a basic principle of urban planning

Collaboration with our sister city – Hanover, Germany

Set up CO_2 Concentration Monitoring Systems

Provide Hanover with material on energy consultation services for citizens and businesses

Environmental education exchange for children focused on energy and resource conservation


Thank you for your attention!