

Kyoto City's Challenge to jointly achieve 1.5 °C

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“Treat the Earth well.

It was not given to you by your parents,

It was loaned to you by your children.

We do not inherit the Earth from our ancestors,
we borrow it from our children.”

— Ancient Indian Proverb



【 Era of “Climate Crisis” 】

Without fighting this crisis, neither the life nor
the culture that we have built up can survive.

Rebuild global warming countermeasures at the
core of urban management in city.

Do not mourn the generation of children and
grandchildren, “Why didn't you aim for 1.5C?”

For that purpose, we must fulfill our

“Responsibility for the future”.

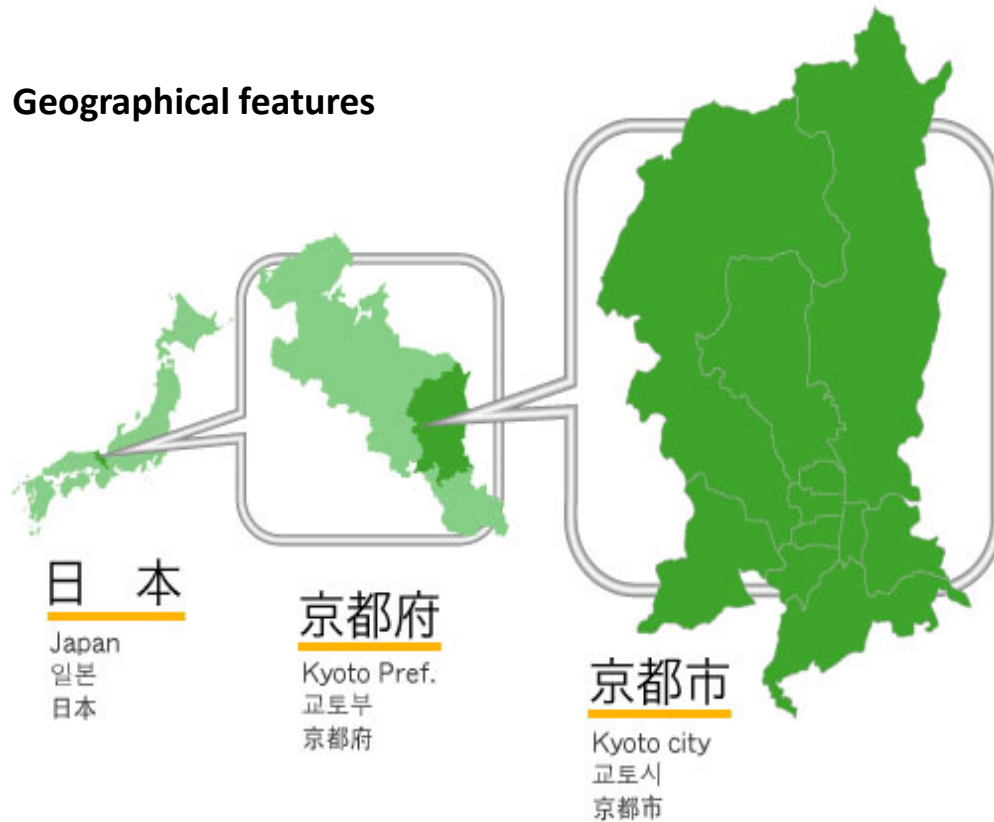


We borrow this earth from
future children.

Can we return a rich natural
environment to future
children?

Introduction of Kyoto City

Geographical features



Population: 1,469,000

Area: 827.8 km²

Gross City Product: 57.4 billion US\$ (2015)

Historical city

- Approx. 20% of national treasures exist in Kyoto City.
- 14 temples/castles designated as World Heritage.

Tourist city

- More than 50 million tourists per year.

City of universities & students

- 38 universities & colleges
- University students accounts for 10% of the population.

Rich natural environment

- 3/4 of total area is forested.

Manufacturing City

- Flourishing high technologies based on superior traditional industries

Timeline of Kyoto City's Global Warming Countermeasures



1997



COP3, Adoption of Kyoto Protocol

Formulation of Global Warming Countermeasures Plan

Target 10% reduction by 2010, compared to FY1990

2004



Ordinance on Global Warming Prevention (first in Japan)

2009



Selected as Environmental Model City by Japanese gov' t.

2010



Full revision of ordinance

Goal achieved! 15% reduction in GHGs compared to FY1990!

Target Compared to FY1990, 25% reduction by 2020, 40% reduction by 2030

2011



Formulation of new plan to achieve new targets

Great East Japan Earthquake

Consistently emphasizes the need for “non-reliance on nuclear power and structures for stable and safe electricity provision”

2013



Formulation of “Strategy for the Promotion of Energy Policy”

Target (by FY2020, compared to FY2010)

Reduce energy consumption by over 15%, increase adoption of renewable energies by over 3 times

2015



COP21, Adoption of Paris Agreement

2017



Revision of plan (strengthened measures in household/business sectors, “Path to Project ‘0’”, addition of adaptation measures, etc.)

Release of “Kyoto Declaration for Cultivating a Culture of Sustainable Cities”

2019



Commemorative Symposium on the IPCC Session in Kyoto, Kyoto Appeal to jointly achieve 1.5 °C, Mayor pledges net-zero CO₂ by 2050

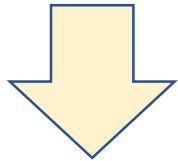
【Kyoto city's starting point for global warming countermeasures】
The 3rd session of the Conference of the Parties
to the United Nations Framework Convention on Climate Change (COP3)



【Background】

United Nations Framework Convention on Climate Change (1992)

⇒ Regulation on greenhouse gas reduction was non-binding.



To advance global warming countermeasures,
legally binding numerical targets were required.

COP3 in Kyoto (From 1 to 11 December 1997)

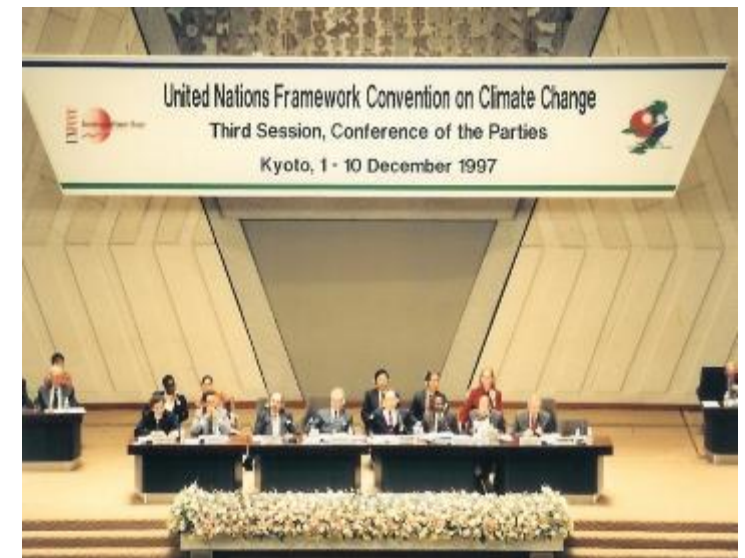
Venue : Kyoto International Conference Center

Participants : 9,850 people from 161 countries

⇒ "Kyoto Protocol" was adopted

<Key points of the Kyoto Protocol>

- For the first time, set legally binding numerical targets on greenhouse gas emissions of developed countries for each country.
- Introduced the "Kyoto Mechanisms" to achieve the target (CDM: Clean Development Mechanism, ET: Emissions Trading, JI: Joint Implementation)



C O P 3

Kyoto City's initiatives as host city of COP3

Creating a foundation for holding support

- ① Strengthening the organization within the City Hall Office
- ② Formed a public relations organization with citizens and local media
- ③ Establish a support system in all Kyoto and all Kansai beyond the boundaries of local governments



Environmental Concert & Talk

About 140 initiatives implemented to boost momentum for COP3



International Conference on Environment and Culture in Kyoto



Junior Global Environmental Conference



welcome reception for COP3 participants



Civil Environment Festival

“Kyoto City’s Initiatives in response to COP” ①

Miyako Agenda 21 Forum(Established in 1998)

Established with the aim of promoting various initiatives to realize sustainable societies based on cooperation among industry, academia, government and citizens



中小企業版
環境マネジメントシステム **KES**

家電製品の
省エネラベル



Miyako Ecology Center(COP3 Memorial Hall) (Opened in 2002)

Total number of
visitors exceeds
1.5 million!



Core facility for expanding
environmentally-friendly activities

“Ordinance on Global Warming Prevention” (2004)

- Japan's first ordinance specializing in global warming countermeasures
- Write emission reduction targets in ordinance
- Obligate large emitters to submit of a plan reducing CO2 emissions.



“Kyoto City’s Initiatives in response to COP” ②

The Earth Hall of Fame KYOTO (from 2008)

The Earth Hall of Fame Kyoto is an award to honor in perpetuity the achievements of those who have contributed to conservation of the global environment. It is given in the name of Kyoto, the birthplace of the Kyoto Protocol.



Ceremony



IPCC

This year's
Hall of Fame



Former President of Ireland
Mary Robinson

Promotion of “DO YOU KYOTO ? ” (from 2009)

“DO YOU KYOTO ? ” is the phrase that is connected with “The Kyoto Protocol” and it is a message Kyoto wants to transmit to the world. It is a slogan that means “Are you doing something good for the environment?” Kyoto City is implementing various measures against global warming using this as the slogan.



Environmental mascot
of Kyoto city



Light down campaign
at landmarks



Converting Starbucks coffee
lighting to LED lamps

“20th Anniversary of the Kyoto Protocol” Kyoto Conference on the Global Environment 2017 (KYOTO+20) (2017)

The “Kyoto Declaration for Cultivating a Culture of Sustainable Cities” was adopted

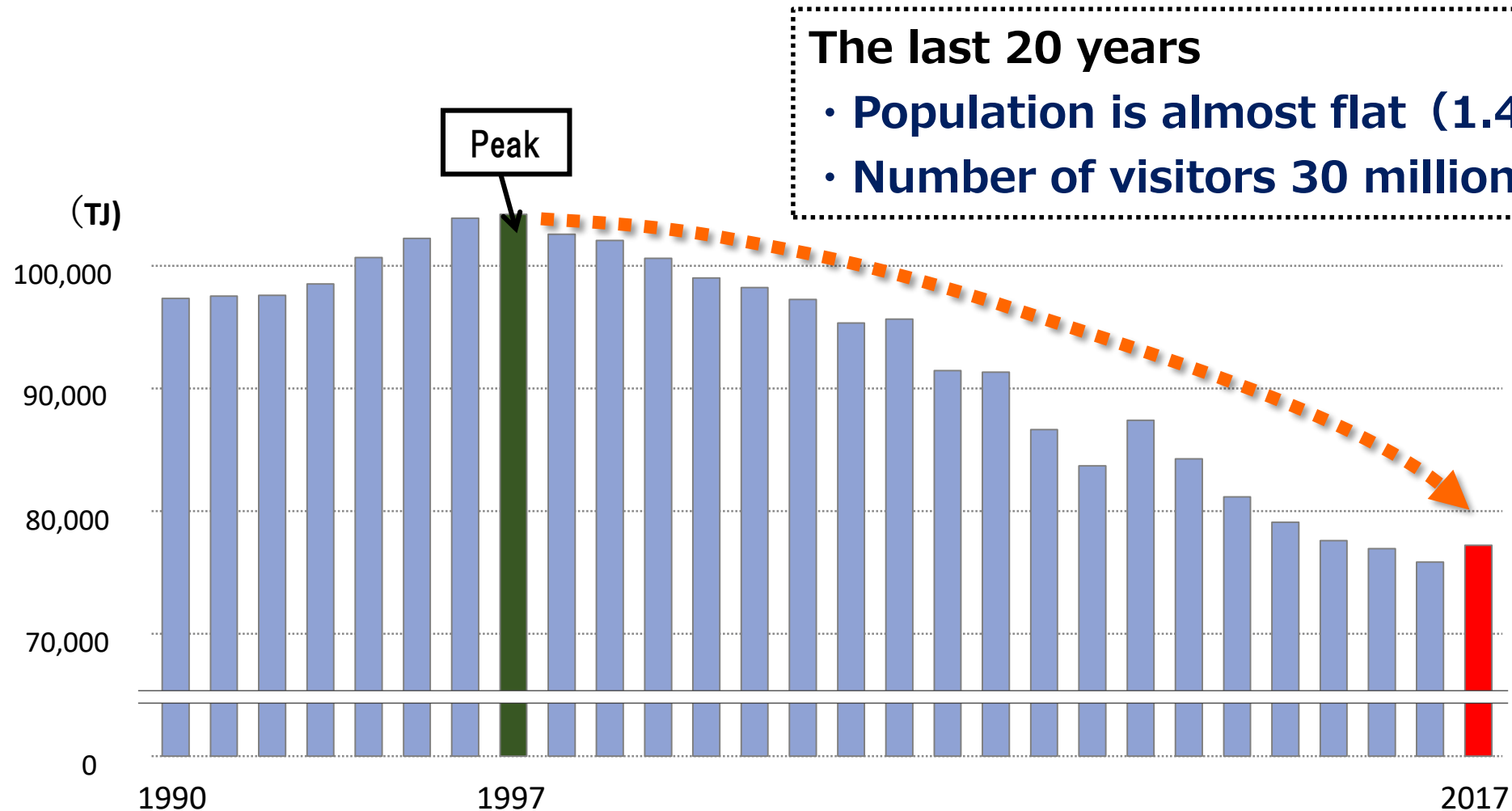
Vision for cities of the world in 2050

- Coexistence with nature is realized
- Change in people’s values and lifestyle is advanced
- Leaders for building a sustainable society are nurtured
- Resource efficient and circular economy is realized
- Strategies for adapting to the impacts of climate change are in place , in parallel with technological innovation for decarbonization
- Urban mobility with low environmental impact is achieved,
- Energy autonomy of cities is realized
- Peaceful resolution of social problems such as poverty and disparity is well advanced



Energy Consumption

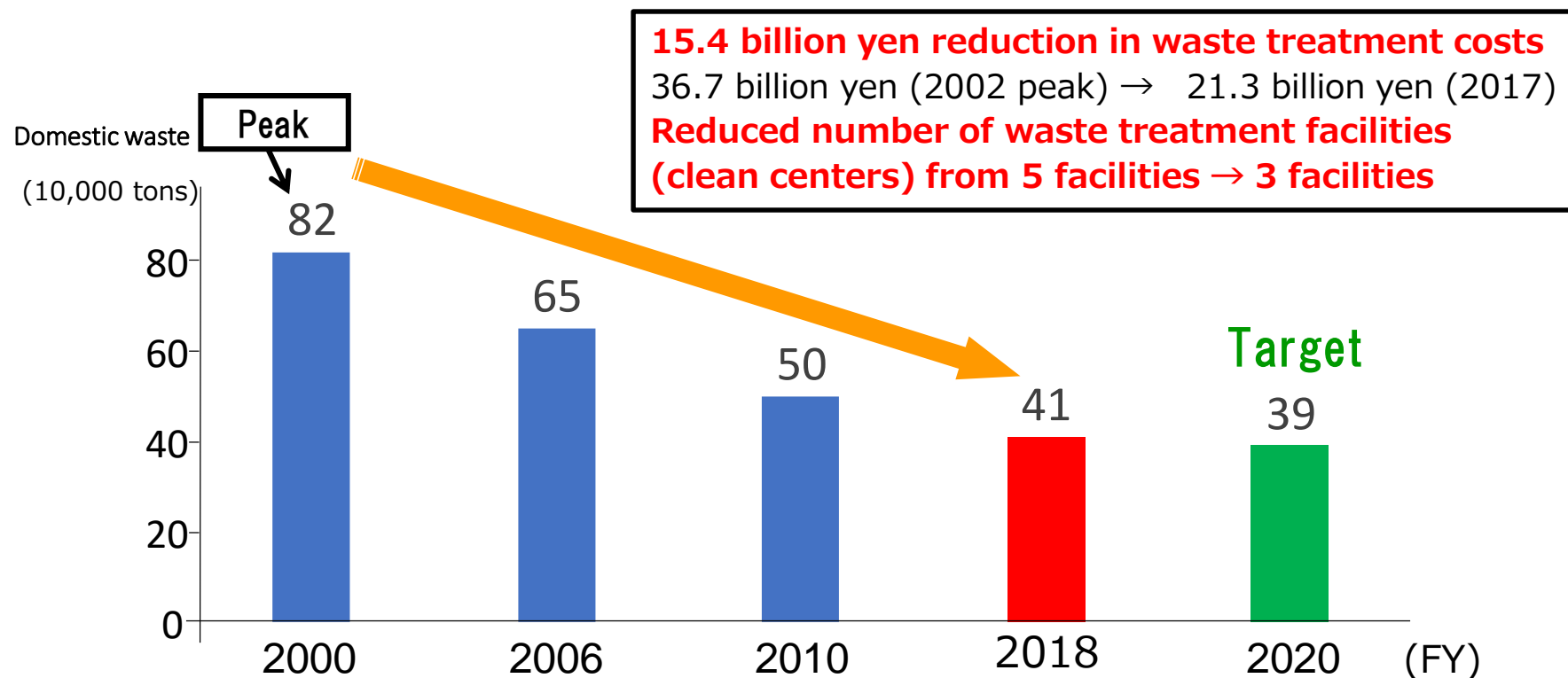
Energy Consumption **26% reduction from peak**
(FY1997)



The last 20 years

- Population is almost flat (1.47 million)
- Number of visitors 30 million⇒ 50 million

Waste cut in half based on citizen involvement !

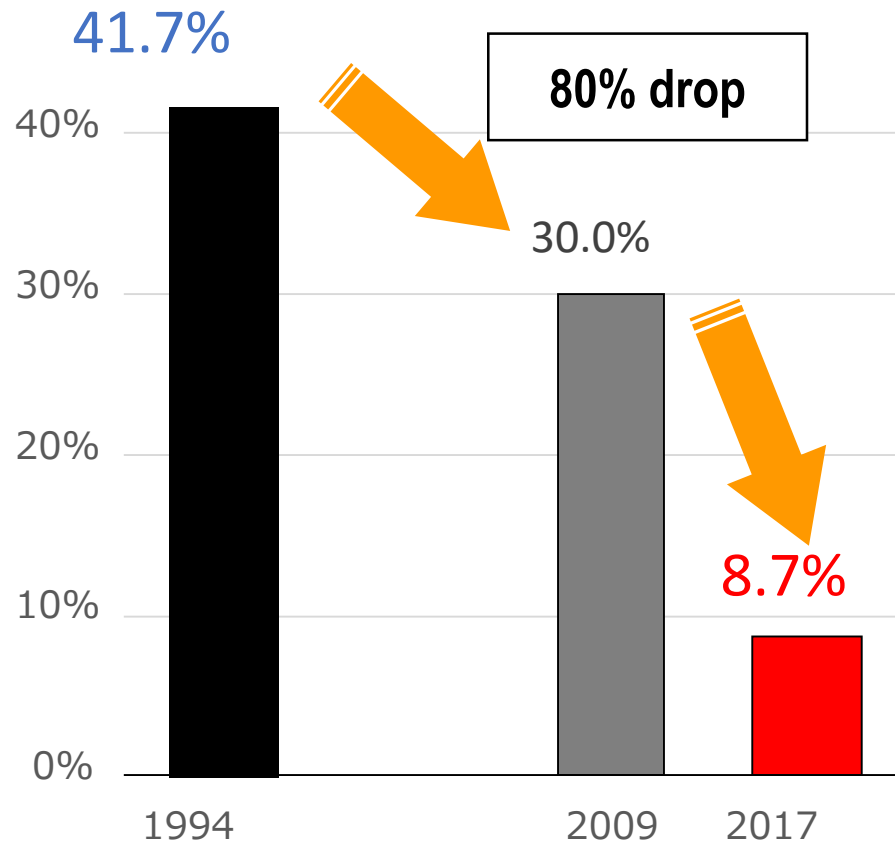


【Per capita domestic waste volume of citizens】

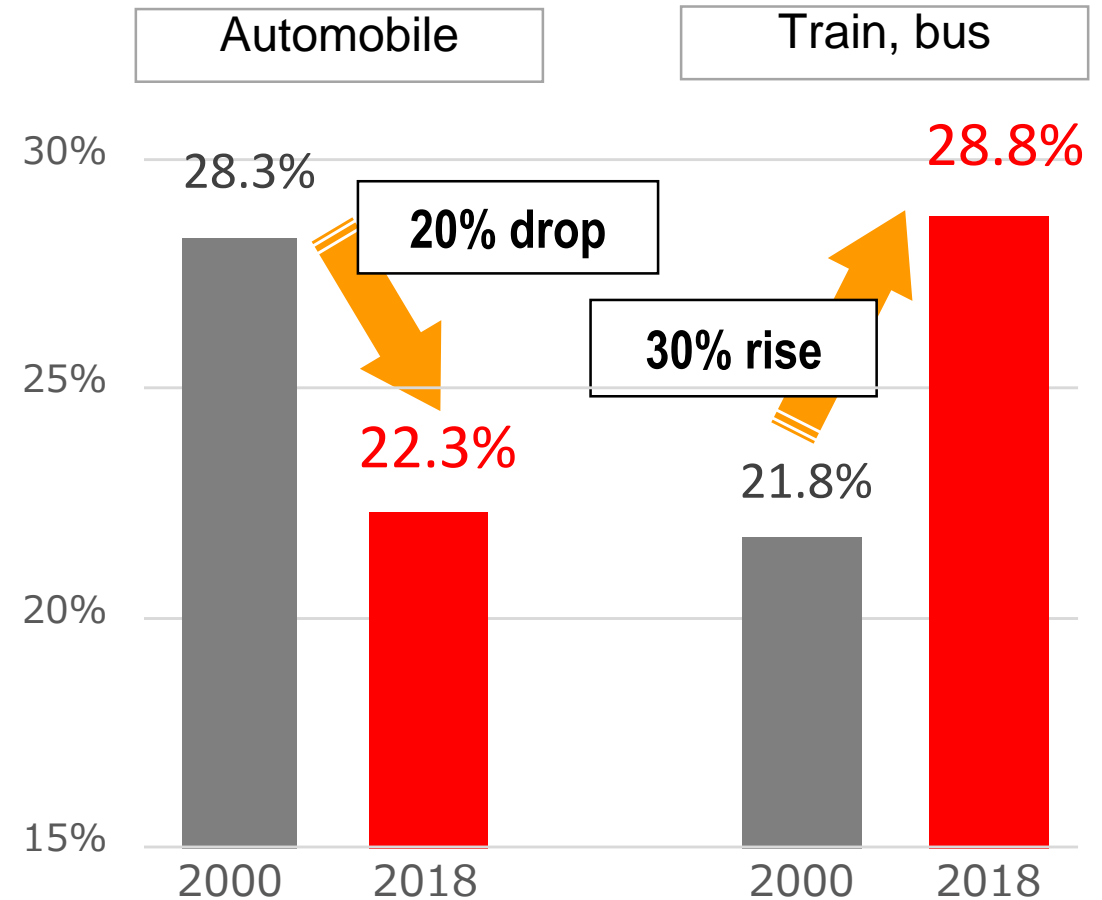
Kyoto City:	399 grams (FY2018)
Average for Japanese cities:	555 grams (FY2017)

"Pedestrian-friendly Kyoto," prioritizing people and public transportation

Ratio of visitors to Kyoto by car

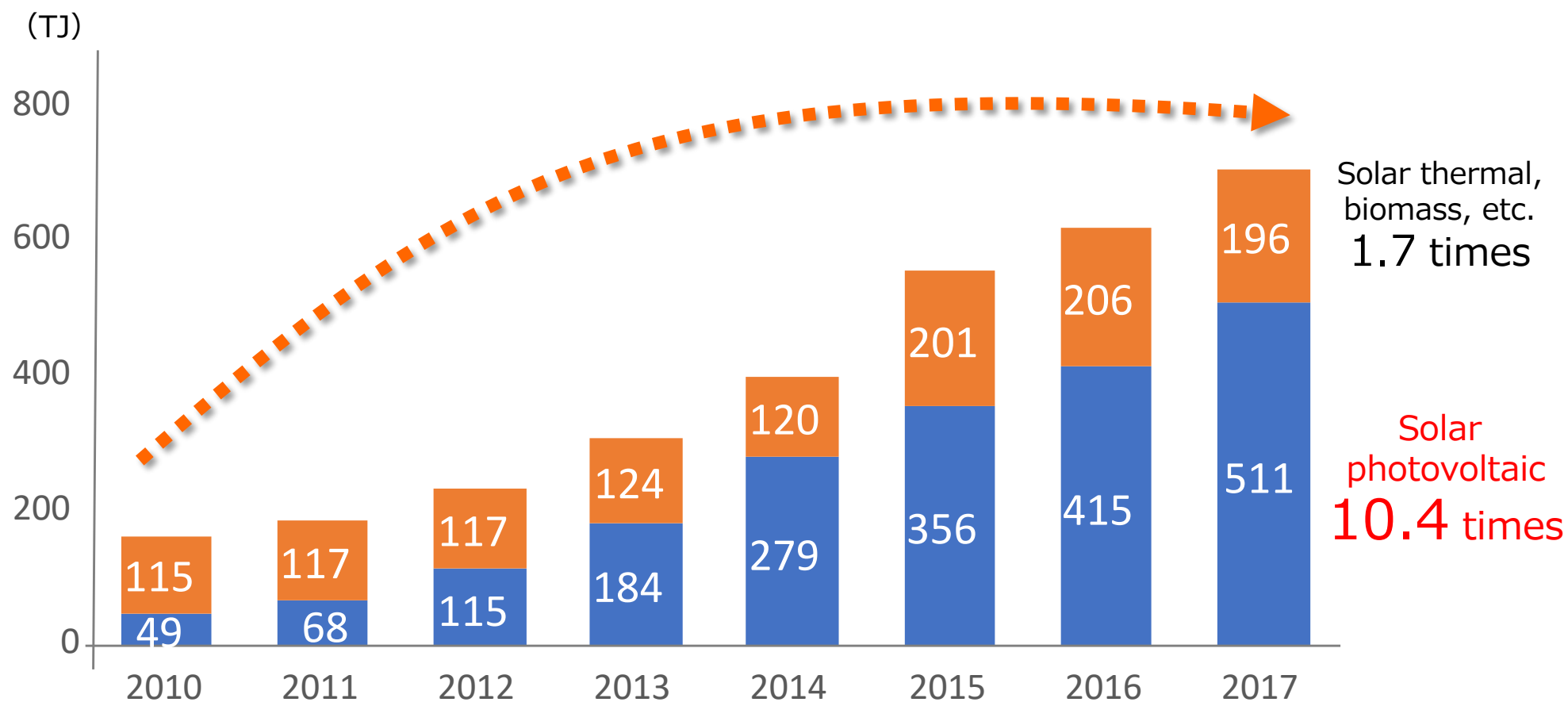


Allocation of means of
transportation



【"Kyoto City Achievements since COP3"④】

Renewable energy output increased by **4.3 times**



【"Kyoto City Achievements since COP3"⑤】

First-in-Japan "Ordinance on Global Warming Prevention" (2004)

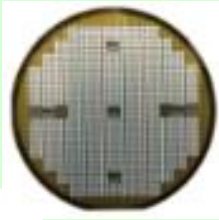
98 concrete initiatives based on citizen involvement!

Promoting innovations through concentration of the knowledge of industry, academia and the public sector

- Striking energy-saving effects of

SiC (Silicon carbide)

Aiming for mass production and societal implementation



- Plant-derived new material

CNF (Cellulose Nanofiber)

5 times the strength of steel, 1/5 the weight

Involving communities in volunteer environmental activities



- **Eco school districts**

All 222 school districts in Kyoto City



Fostering tomorrow's leaders

- **Kyoto City Environmental Education Standard**

Environmental education in all curriculums at the primary and jr. high levels

- **Children's Eco-life Challenge**

More than 110,000 primary school students have taken classes, and supported by Volunteers, have involved families in energy-saving



Partnership-based Initiatives

- Nationwide expansion after trial at "Miyako Agenda 21 Forum"



Small and medium-size enterprises edition

KES Environmental Management System

Energy-saving labels

on household appliances



Mayor of Kyoto City announced "Net-zero CO₂ emissions by 2050"



Challenges from Kyoto to achieve 1.5 °C

Kyoto Appeal to
jointly achieve 1.5 °C

The first time ever in Japan



net-zero CO₂
emission



by 2050

IPCC Kyoto Guideline

to support implementation of Paris Agreement



Three Determinations

Responsibility for the future

Responsibility as Kyoto

Resolution

Governments tend to set “**Achievable Target**”.
It is important to consider whether there are
achievable steps when setting target.

But is it correct to not set “**Needed Goal**”
because all means of achievement have not
been found **despite the impending climate
crisis**?

To set the carbon neutral target for 2050

- The ordinance of global warming countermeasures
- The climate action plan

be subject to amend by 2020FY

PR: Climate Crisis



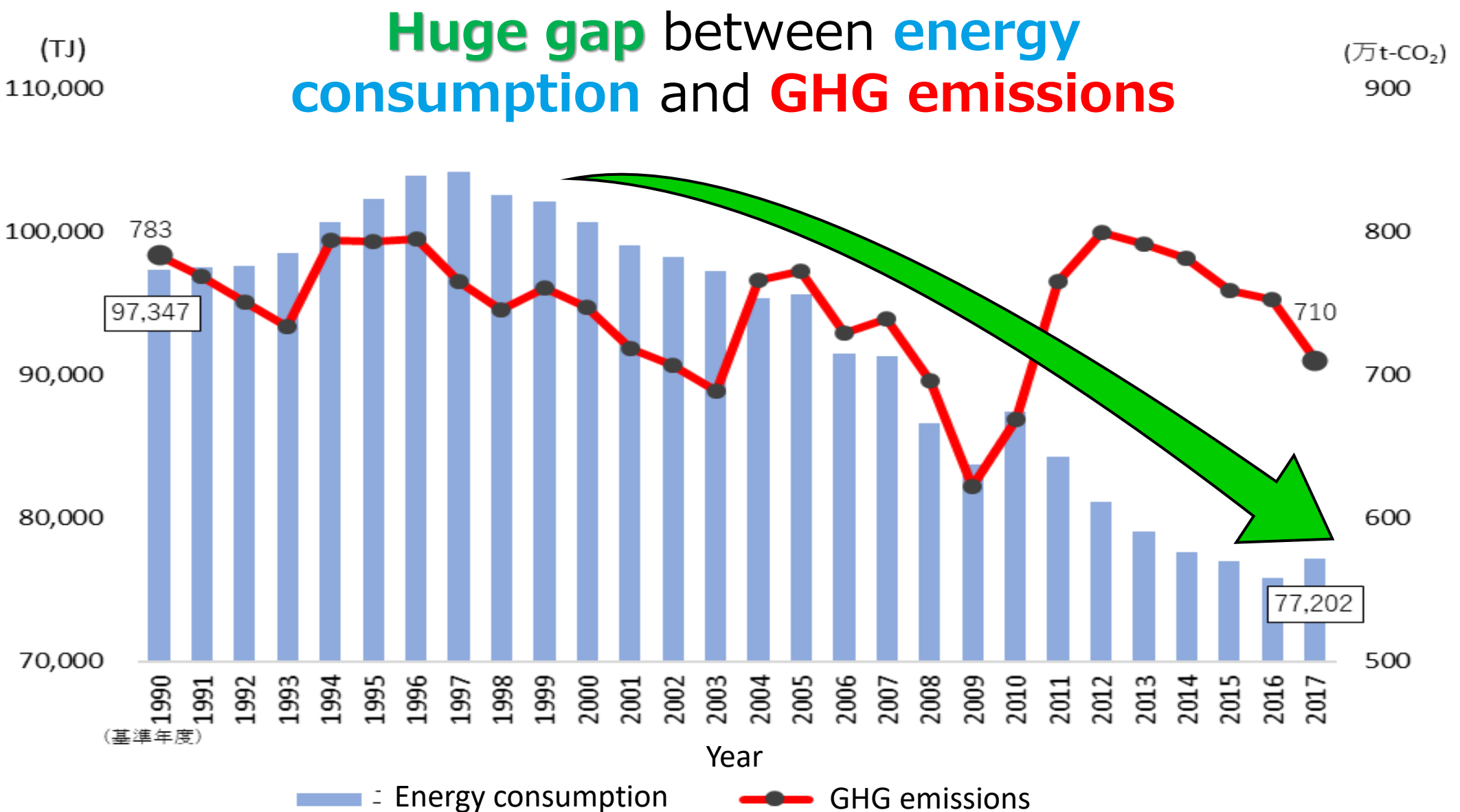
City Council



Environmental Advisory Committee



Transition on Energy consumption and GHG emissions



The Path to Net-zero CO₂ Emissions by 2050

“Road to Zero Project” advanced ver. (draft)

Project 2 Necessary actions to 2050

To introduce advanced measures after research period

e.g. Decarbonized public transportation, local energy for local consumption, innovation

Open to evolve with additional measures (raise ambition)

Project 1

To implement concrete measures for 2030

Present

Plus Action

to add further measures

Reduction target

more than

40%

by 2030

Plus Action

Net-zero CO₂ emissions



by 2050

Contribution to the path to zero

- Kyoto Forest's contribution (Forest absorption – ▲100,000 tons + α)
- Additional measures by businesses – CDP, RE100

Sub targets

- ◆ Energy Consumption: **40% reduction** from its peak
- ◆ Share ratio of RE: **35%**

※ Base year is 1990

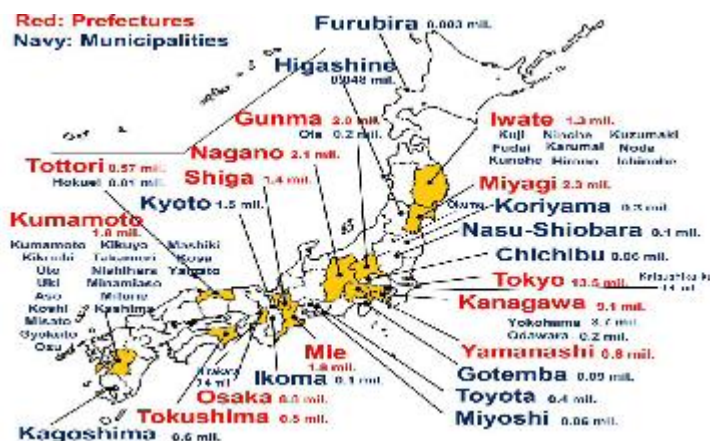
- 412 cities and regions aim for net zero by 2050

Urgent and ambitious climate action is needed

2050 Zero · Carbon · Cities in Japan

- 59 local governments including Kyoto, Tokyo, and Yokohama announced

※ As of 11 Feb. 20



Source: Ministry of the Environment website

These local governments represent

- 50 million people
 - About 40% of Japan's population
 - About 75% of the UK population
- 2 trillion USD in GDP.

Kyoto City's activity report at COP25



The role of local governments

- ✓ Act together to achieve high goals
- ✓ Leading to further reduction targets of Japan



Kyoto City's Initiatives toward COP26 (Road to Glasgow)

Build on GHG reduction targets
in collaboration with local governments and non-state actors around the world



ICLEI



JAPAN CLIMATE INITIATIVE



Covenant of Mayors for Climate & Energy

Action for early agreement to use the “**IPCC Kyoto Guidelines**”

IPCC Kyoto Guidelines

“IPCC Kyoto Guidelines” were adopted at the 49th Session of the IPCC held in Kyoto. They are expected to be used for the preparation of an GHG (greenhouse gas) emissions and removals inventory (=National GHG Inventory), which must be submitted by all states and regions participating in the Paris Agreement.

“IPCC Kyoto Guidelines”
to support
implementation of
“Paris Agreement”



49th Session of the IPCC