



PROJECT TO CREATE LOW-CARBON CITY OF KYOTO

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WASHOKU as an Intangible Cultural Heritage by UNESCO

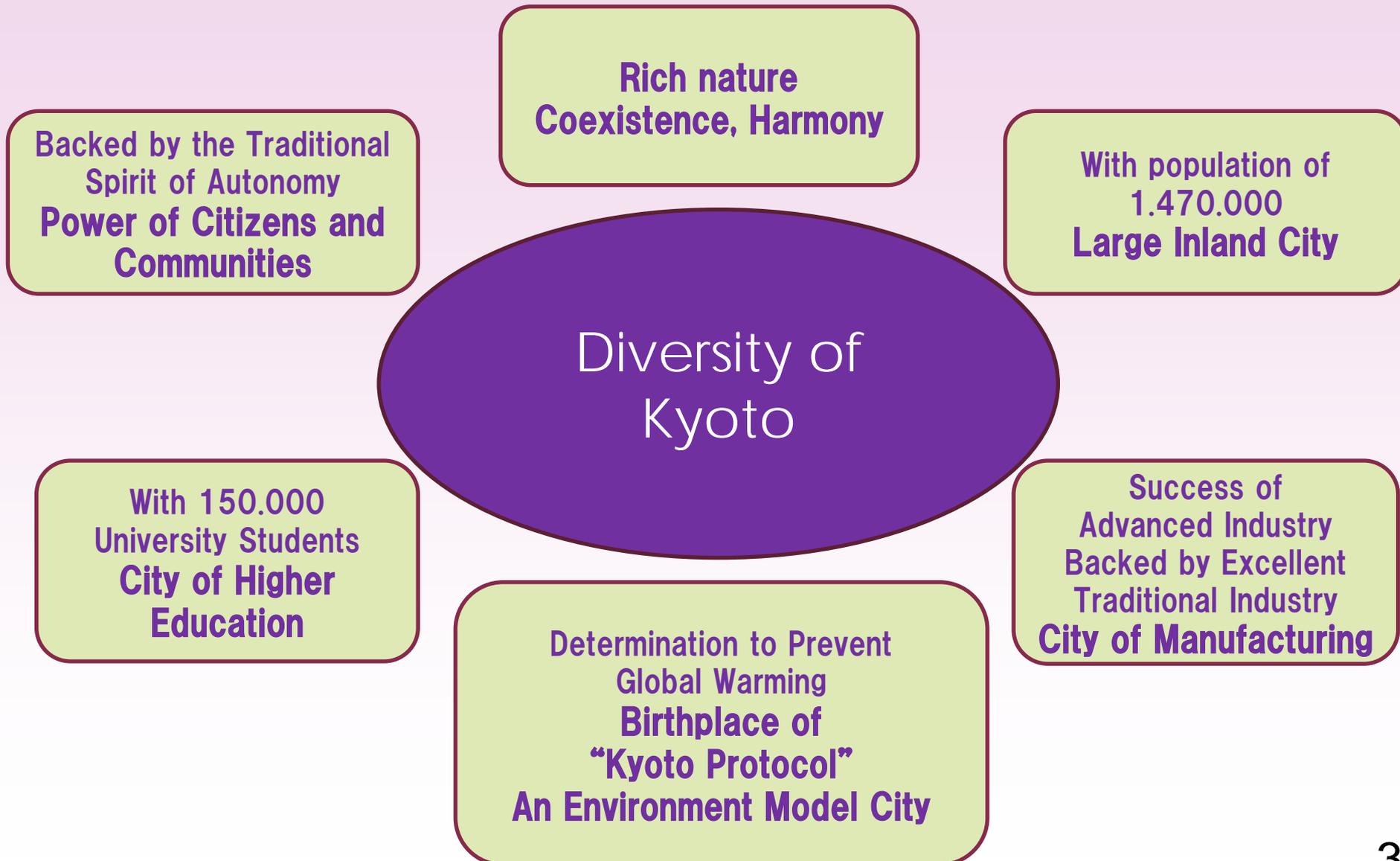
Washoku (traditional Japanese cuisine) was designated as an Intangible Cultural Heritage by UNESCO in December 2013.

- ◆ Washoku originated in Kyoto.
- ◆ The lifestyle coexisting with rich nature is still alive in Kyoto.
 - ⇒ Sense of gratitude for rich nature and life “Itadakimasu”
“Gochisosama”
 - ⇒ Use up all cooking ingredients “Mottainai”
 - ✕ The western meat-eating habitat consumes a lot of grain as feed.





Main Feature of Kyoto





the 6 visions of a society on Kyoto Program of Global Warming Countermeasures

the 6 visions of a society in 2030

City enjoyed by walking with preference given to people and public transportation: sloughing a car-centered society

City that regenerates its forests and values its “culture of wood”

City of energy creation and community recycling

Environmental-friendly lifestyles

Environmental-friendly economic activities

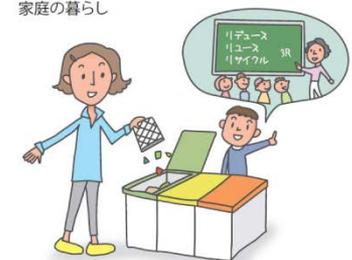
Garbage reduction



昔と比べてごみの量が減る



家庭の暮らし



リユース



お店や工場では





a city enjoyed by walking with preference given to people and public transport : sloughing a car-centered society①

● **“Pedestrian Friendly City, Kyoto” Charter (formulated in Jan. 2010)**

Promote “Creating a Charming City Where People Comes First” through the collaboration between citizens, tourists, enterprises and the city

● **“Pedestrian Friendly City, Kyoto” Comprehensive Transportation Strategy (formulated in Jan. 2010)**

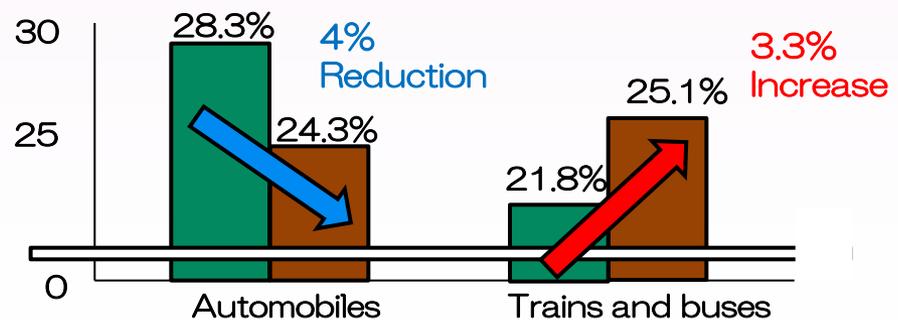
- Transform from car dependency into a healthy and pedestrian-friendly city
- Kyoto, being a representative “International Culture and Tourism City” as well as continuing to be a vibrant city generating energy

Basic Concept



In order to promote the strategy, 88 projects are steadily implemented.

Reduction of the transit modal share of automobile

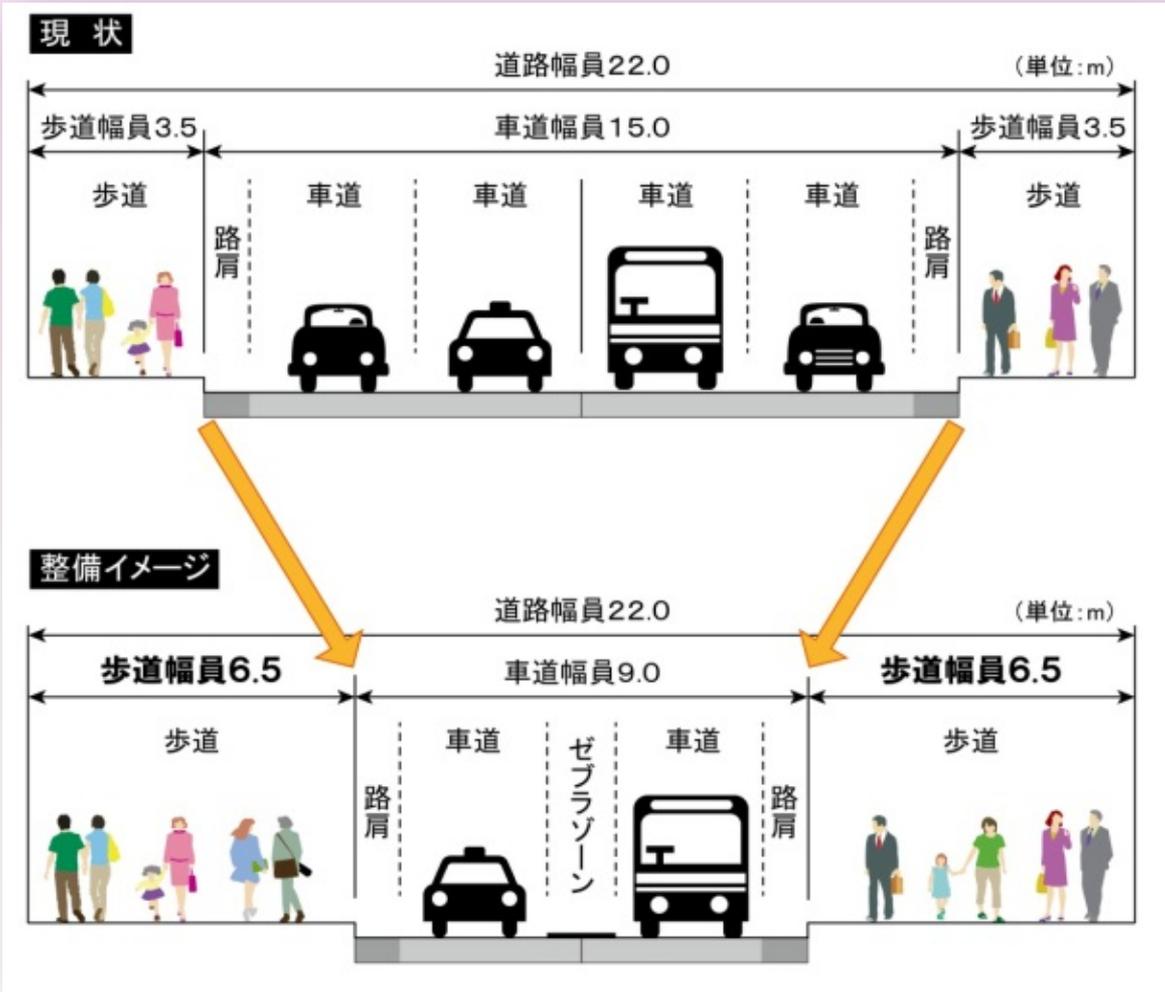


※Green for 2000 Brown for 2010

a city enjoyed by walking with preference given to people and public transport : sloughing a car-centered society②



The first among large cities !
Widening of sidewalks and cutting the width of roadways by half (four lanes to two lanes) on a main street of downtown Kyoto
Preference on public transportation

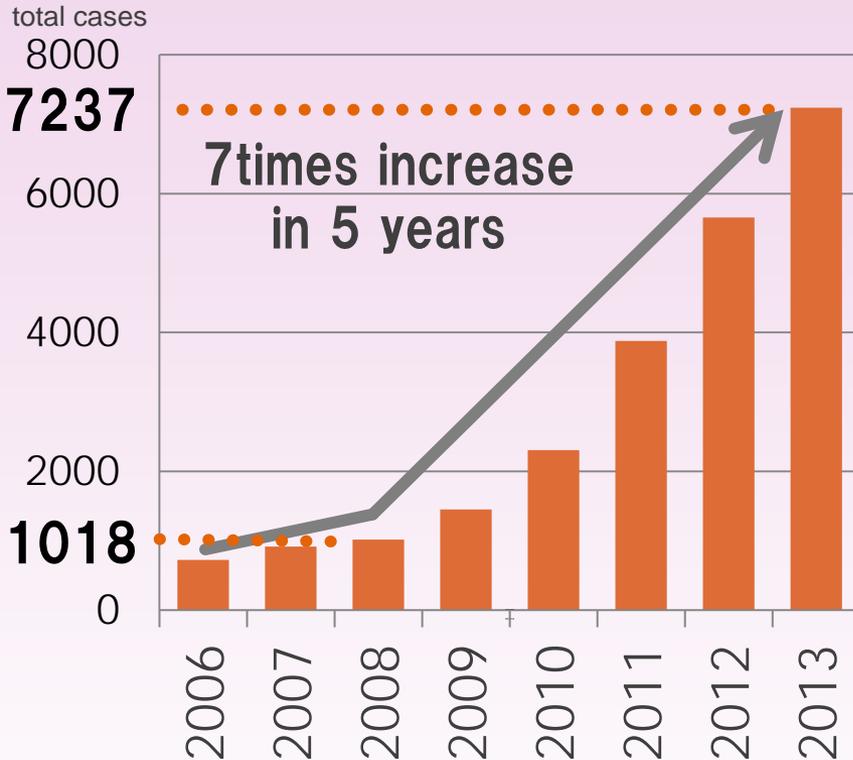


City of energy creation and community recycling①

Promotion of Renewable Energy



① Uptake at home



Number of recipients of the Solar Power System Subsidy Program

In 2014, we subsidized the installation of five types of power generation and energy saving facilities.*

(*Solar power generation system, electric storage device, solar heating system, home fuel battery system, HEMS)

② Promotion measures taken by the initiative of citizens (Citizen Cooperative Power-Generation Project)



Citizens will participate in the Power-Generation Project through investment.
The investors will be rewarded with local specialties.

③ Uptake in enterprises

One third of the costs for the installment of energy-saving facilities will be subsidized by the city to the small and medium -sized enterprises in Kyoto.



City of energy creation and community recycling②

Launched "Biodiesel Fuel Project" in October 1996

Harnessing the power of citizens and communities, used cooking oil is collected by citizens for making fuel. This fuel is used in refuse-collection vehicles and city buses.



A collection point for used cooking oil (one of about 1760)



Fuel-production facility for used food oil in Kyoto (Produces 5,000 liter /day)



- 92 city buses (B5)
- 136 garbage-trucks (B100)
- Reduction of CO₂ is 3,300 tones / year

Biomass Fuel Production (Bio Light Oil Materialization Project)

Compared to the present biodiesel fuel, bio light oil is far more compatible with vehicles and exhaust is much cleaner. In a world first, the City of Kyoto has launched a collaborative project with the Advanced Scientific Technology & Management Research Institute of Kyoto, Toyota Motor Corporation and Kyoto University on the research and development of techniques for producing high-quality bio light oil, with the hope of realizing these by FY 2018.

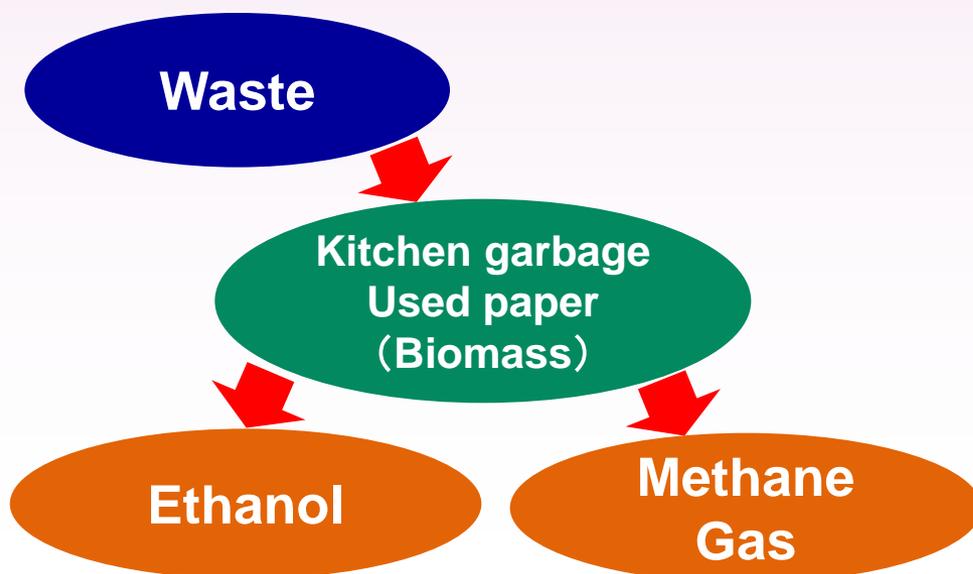
Feature of Bio Light Oil

- ① Biomass fuel does not increase CO₂ in the air
- ② High quality equals to light oil
- ③ Can produce not only from used plant oil but also from waste animal fat
(This technology is the world's first.)



City of energy creation and community recycling③ Urban “Oilfield” Development Project

- We have successfully produced about 60 liters of ethanol, at 99.5% purity, out of one tonne of kitchen garbage (40% of the total amount of garbage collected by the city) and used paper (30% of that) by adding water, enzymes and yeast to induce glycation and fermentation. Now, 5 tons is produced in one week
- By meeting the Japanese Industrial Standards for dehydrating ethanol, it is possible to use it as an oil product.
- Under a demonstration test to make a methane from the residual substance which extracted ethanol.
- This project is implemented by the collaboration between Kyoto City, Kumamoto University, and Hitachi Zosen Corporation (Subsidized by the national government)



Demonstration plant located in Kyoto



“Kyoto” is Synonymous with “Eco”

<p>KYOTO Box</p>  <p>Kyoto box provides free energy for cooking, baking, cleaning water and drying foods.</p> <p>Read more ...</p>	<p>KYOTO Turbo</p>  <p>Kyoto Turbo is a smokeless biomass cooker increasing the combustion efficiency by 300%.</p> <p>Read more ...</p>	<p>KYOTO Bag</p>  <p>The Kyoto Bag is a high-tech, multifunction plastic bag for carrying and storing water.</p> <p>Read more ...</p>
<p>KYOTO Flash</p>  <p>Kyoto Flash is a shock- and water-proof light able to provide 6 hours of light per day.</p> <p>Read more ...</p>	<p>KYOTO SunTrap</p>  <p>Kyoto Suntrap is a cost-effective 100% aluminum solar water heater with insulated tank.</p> <p>Read more ...</p>	<p>KYOTO Butterfly Solar Generator</p>  <p>Kyoto Butterfly is a multifunctional solar energy systems that allow the co-generation of electricity and heat.</p> <p>Read more ...</p>

Kyoto Products by Kyoto Energy Ltd.

“DO YOU KYOTO?”

Are you doing something good for the environment?

Commemorating the date of enactment of the Kyoto Protocol on February 16, 2005,

City of Kyoto designated the 16th of every month as

“DO YOU KYOTO? DAY”

(a day for doing something good for the environment).



Lycee Kyoto (an environment-friendly high school in France)

<For example>

“No- My-car Day” encourages citizens to refrain from using a private car.

“Light Down” is designed to dim the street lights.

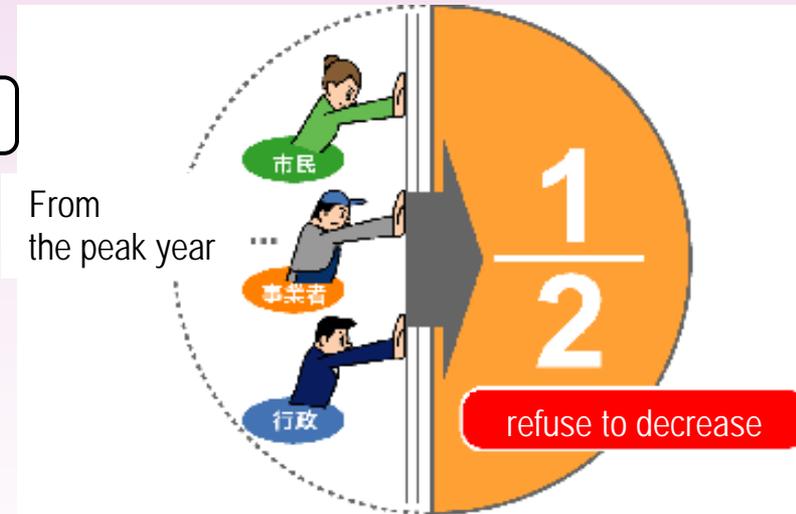
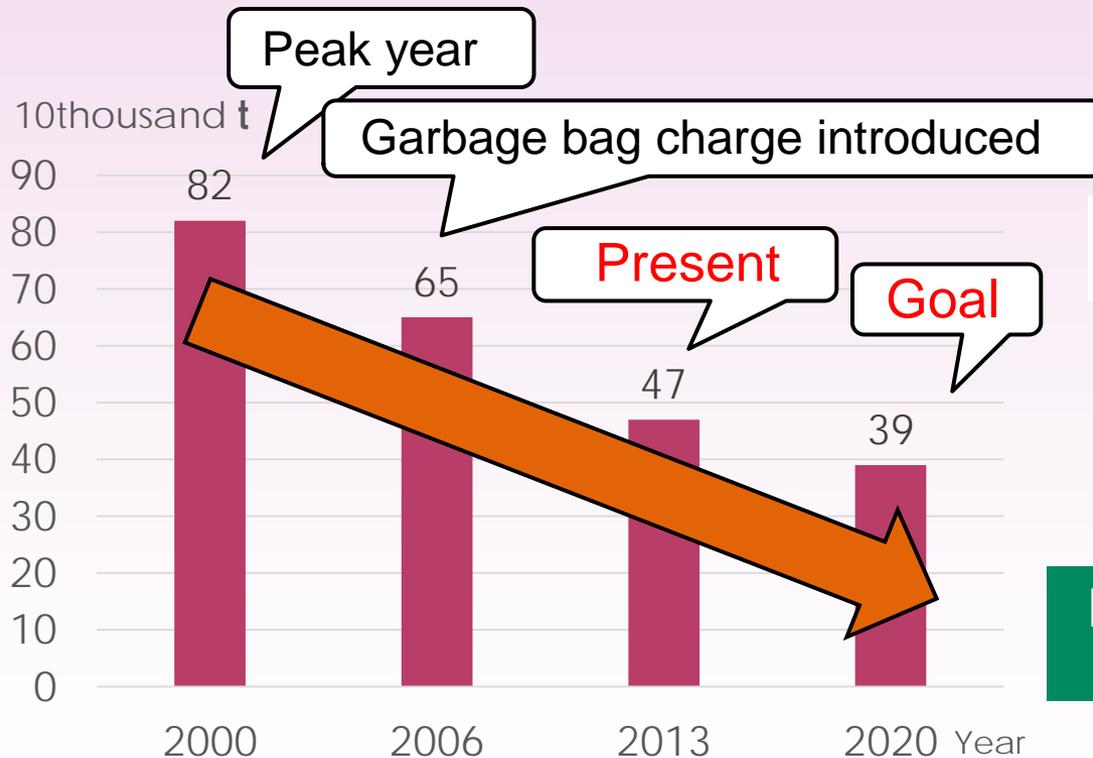


Garbage reduction Let's reduce refuse by half !



Reducing the total amount of garbage in Kyoto by 42% from the peak year (2000)
Kyoto City disposes of the least amount of garbage per person
among the 20 largest cities in Japan.

(Kyoto: 445g /capita /day Average of 19 other cities: 595g/capita/day)



Drive for building a recycling society
by cutting down refuse

- Reduction of refuse incineration plants (2004: 5 plants 2012: 3 plants)
- Cost reduction for garbage collection(2006: ¥ 9.4 billion 2013: ¥ 5.4 billion)₁₁



International Corporation through ICLEI



ICLEI – Local Governments for Sustainability

- ◆ An international association of local governments and metropolitan and regional government organizations that have made a commitment to sustainable development. (Membership of more than 1,000 governments from 84 countries and regions)
- ◆ It was established in 1990 in New York following a suggestion made by the local governments participating in the “World Conference on Sustainable Future” organized by the UN, and other international organizations such as UNEP and International Local Government Federation.
- ◆ As an official consultative organization of the United Nations, it is active in advocating the successful practices and opinions provided by local governments at international conferences such as COP .
- ◆ The ICLEI East Asia Regional Executive Committee Meeting was held in Suwon City, Korea in September 2013. The Committee members resolved to lead the local governments of East Asia for their environmental policies in light of the circumstance that 30% of greenhouse effect gas emitted in the world comes from East Asia.

JCM Feasibility Studies of GHG Mitigation Projects Contributing to Low Carbon Old Capital based on City-to-City Cooperation between Vientiane and Kyoto



(Global Environment Centre Foundation (GEC), Kyoto City, Almec Corp., Mitsubishi Motors Corp. (MMC))

Kyoto City

- The place where the Kyoto Protocol was adopted
- The historical and environmental model city implementing practical activities for sustainable development
- Preserving **cultural and historical** heritages in a sustainable manner
- Implementing advanced and creative **environmental** conservation
- Achieving urban development and **economic** growth, with receiving a number of domestic and international tourists

Support

Vientiane Capital City (Lao PDR)

- The city with various historical and cultural heritages
- Emerging problems due to urbanization
 ← caused by a lack of appropriate infrastructures to respond to rapid economic growth and increased tourists.
- **Supports needed to resolve the problems in the Least Developed Country (LDC)**
- In solving urban environmental problems, such as waste management.

Contents This project promotes the wide-spread of JCM projects in Vientiane Capital City.

- Investigate the needs of Vientiane Capital City **to achieve a Low Carbon Old Capital, implement JCM projects and develop the elements of the Plan for Low Carbon Old Capital.**
- **Provide comprehensively institutional and technological supports for sustainable development at international committees and workshops.**
- **Finding possible JCM projects (wide-spread and/or packaged types).**

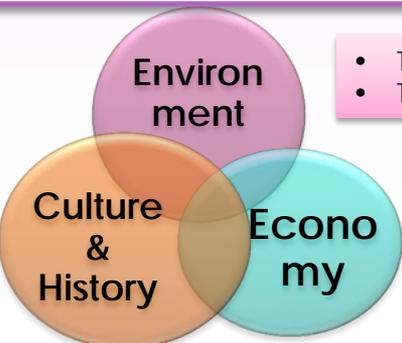
Establishment of operation & management schemes for the formulation of the Low Carbon Old Capital

Following JCM project FS will be undertaken, with the expectation of early implementation and of wide diffusion, based on local needs.

- *"The promotion of Electric Vehicles usage for taxi and government agencies"*

JCM Feasibility Studies

Expected outcomes



- The limitation of Greenhouse Gas emission and air pollution
- The appropriate management and recycling of waste

- The conservation of historical and cultural heritages
- Landscape preservation

- The establishment of urban planning and transportation infrastructures
- The development of tourist industry

Wide-scale JCM projects will be developed and implemented with the utilization of Kyoto experiences and Japanese advanced technologies, to **build the Low Carbon Old Capital** with the integration of 3 elements of sustainable development

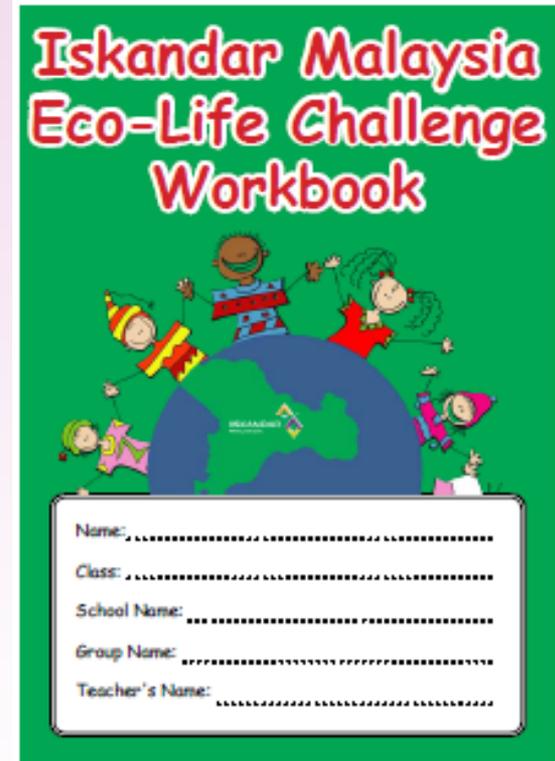


“Eco-Life Challenge for Children” in Malaysia

With the cooperation of Kyoto City, the Iskandar Regional Development Authority in Malaysia has developed a training program modeled after “Eco-Life Challenge”. In 2015, the program will be extended to all 198 schools in the region.



The implementation situation in Kyoto City



Workbook





Japan and China environmental technology information plaza



This plaza is going to be opened in friendship environmental conservation center in 2015 in Beijing. Positioning of the central facilities of the environmental education facilities which are 200 places in China. The plaza is support of the facilities administration, personnel training to be engaged in the environmental education, reporting about the environmental educations.

“Kyoto ecology center” is a model of the plaza.
Kyoto Environmental Activities Association
supports it about personnel training and effective display



Natural environment, arts and culture, food and hospitality of Kyoto



Kyoto Brand receives increased recognition for its diverse urban characteristics.

World best cities by Travel + Leisure

● 2012年

Rank	Name	Score
1	Bangkok (Thailand)	89.87
2	Florence (Italy)	89.14
3	Istanbul (Turkey)	89.11
4	Cape Town (South Africa)	88.64
5	Sydney (Australia)	88.52
6	Rome (Italy)	88.49
7	New York (America)	88.12
8	Hong Kong (China)	88.03
9	Kyoto (Japan)	87.90
10	Paris (France)	87.67

● 2013年

Rank	Name	Score
1	Bangkok (Thailand)	90.40
2	Istanbul (Turkey)	89.96
3	Florence (Italy)	89.84
4	Cape Town (South Africa)	89.57
5	Kyoto (Japan)	89.31
6	Rome (Italy)	89.09
7	Charleston (America)	88.65
8	Barcelona (Spain)	88.45
9	Paris (France)	88.35
10	Chiang Mai (Thailand)	88.15

● 2014年

順位	都市名	得点
1	Kyoto (Japan)	90.21
2	Charleston (America)	90.18
3	Florence (Italy)	89.99
4	Siem Reap (Cambodia)	89.82
5	Rome (Italy)	89.61
6	Istanbul (Turkey)	89.58
7	Seville (Spain)	89.28
8	Barcelona (Spain)	89.18
9	Mexico City (Mexico)	89.07
10	New Orleans (America)	88.74

Ranking system by the vote of its readers conducted for 19 years

Two years ago, Kyoto entered the top 10, and this year it reached No.1 in the world.

— 「Travel + Leisure」 —

Travel + Leisure is a monthly travel magazine which boasts its sale of one million copies. Most of its readers live in the North America. It is believed to be one of the most influential magazines in the world.

World Best Award is a popular vote by the readers started in 1995.

※Kyoto was also voted No. 1 City in Asia by readers of Condé Nast Traveler, a specialist travel magazine of a major U.S. publishing house with a print volume of 800,000.

