



Osaka City

Ho Chi Minh City - Osaka City Cooperation Project for Developing a Low Carbon City



The 8th Asia 3R Conference
for Asian Local Governments

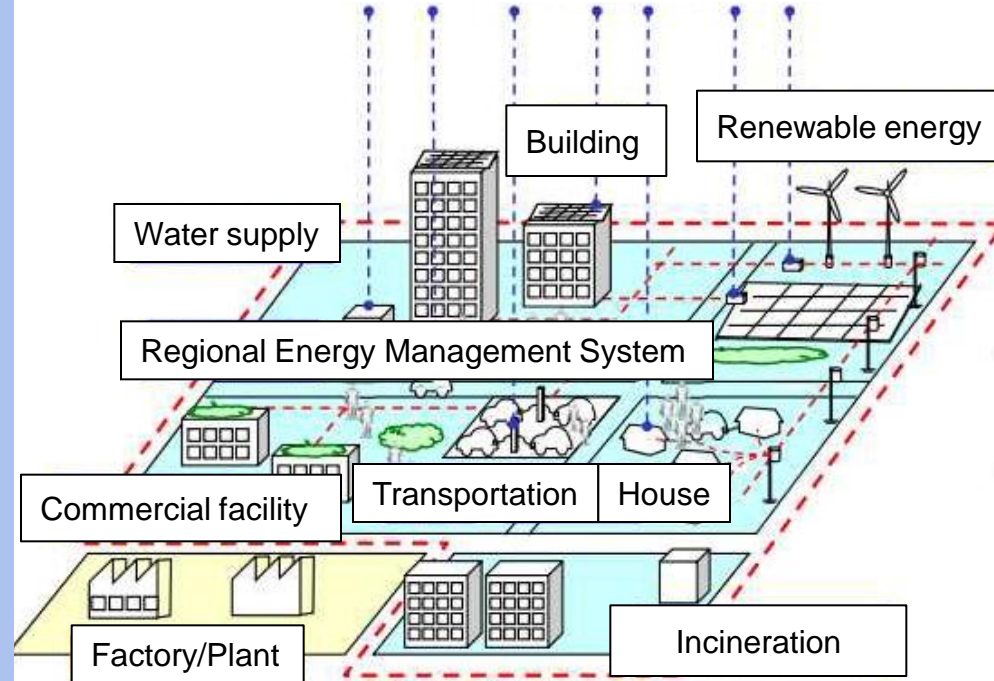
Osaka City Government



Ho Chi Minh City-Osaka City Cooperation Project for The Development of a Low Carbon City



Japanese low carbon technologies



Plants to expand to a low carbon city

Adapted from : Ministry of the Environment

Based on Osaka City-Ho Chi Minh City Cooperation

Osaka City provides expertise and offers a support package that includes environmental technologies and administration.



Ho Chi Minh City -Osaka City Cooperation Project for Developing a Low Carbon City

Ho Chi Minh City

- Viet Nam’s largest city in terms of both population and economic scale.
- Concern about the increase in GHG emissions and environmental impacts resulting from rapid urbanization and economic growth.

International Symposium

Osaka City, 2013



Ho Chi Minh City, 2015

Support from Ministry of the Environment, Government of Japan

- Signatory to the Joint Crediting Mechanism (JCM) between Japan and Viet Nam (July 2013)
- Selection as site or feasibility study for the development of JCM large-scale project (2013-)

Support from Osaka City

Conclusion of the MoU between Ho Chi Minh City and Osaka City on Developing Low Carbon City (Oct 2013)



Supporting the development for a low carbon city in Ho Chi Minh City Based on the MoU



MOU on Development of a Low Carbon City between Ho Chi Minh City and Osaka City

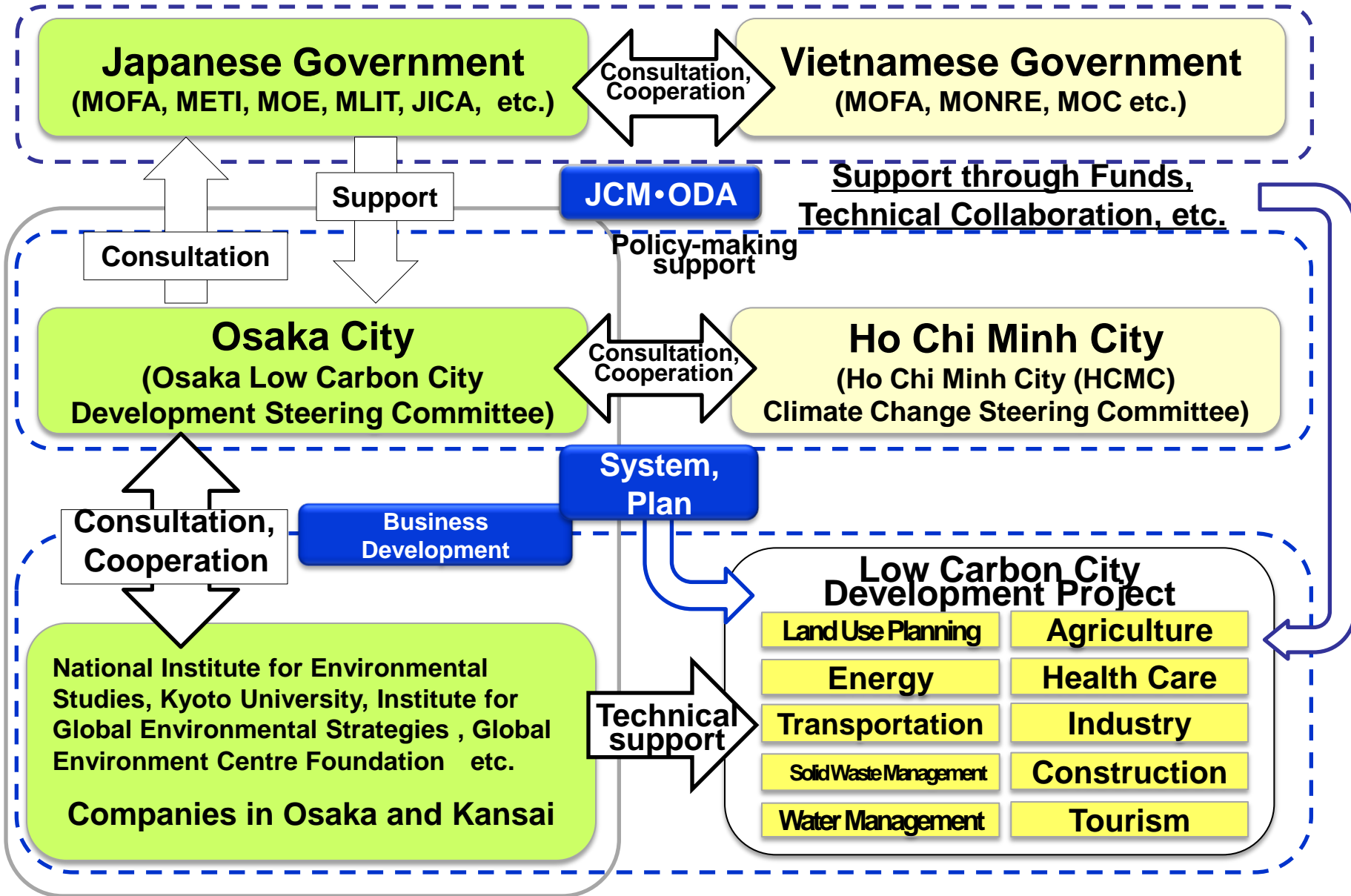
Signed by Osaka City Mayor and Chairman of Ho Chi Minh City People's Committee on October 22, 2013



- The MOU agreed to do the followings until 2015:
 1. Cooperation on the creation of a Climate Change Action Plan
 2. The implementation of a yearly policy dialogue between Mayors
 3. The implementation of projects through public and private cooperation



Cooperative Framework between Ho Chi Minh City and Osaka city





Field Survey

River



Air pollution



Waste collection



Introduction of rainwater utilization





Ho Chi Minh City/Osaka City partnership -Cooperation Activities-

Policy-making Support towards the Development of a Low Carbon City

- **Transfer of Osaka City's knowledge, experience, technology, and systems in urban management and urban development.**
- **Consultation on specific cooperation details through mayor-level policy dialogues.**
- **Sharing of knowledge and solutions for problems through trainings in Japan and working groups.**



Local working groups on Climate Change Action Plan and projects

Early Realization of Projects through Public-Private Partnerships (PPP)

- **Project proposals for each sector (10 sectors), including land use, energy, transportation, waste, etc.**
- **Formulation and implementation of JCM project**
- **Development of the Ho Chi Minh City Climate Change Action Plan in order to strategically move forward with activities.**



Briefing on JCM projects for Japanese companies



Ho Chi Minh City Climate Change Action Plan (2016-2020)

Climate Adaptation Strategy based on cooperation with Rotterdam City , as formulated in 2013



Climate Change Action plan (2016-2020) (CCAP) based on cooperation with Osaka City, as formulated in 2015

Climate Adaptation Strategy Ho Chi Minh City

moving towards the sea with climate change adaptation

Measures of 10 sectors for CCAP

- 1.Land Use Planning 2. Energy 3.Transportation
- 4.Industry 5.Water Management
- 6.Solid Waste Management 7. Agriculture
- 8. Healthcare 9. Construction 10. Tourism



GHG emission reduction target

10%-20% below 2013 levels by 2020





List of Suggested Projects for Ho Chi Minh City Climate Change Action Plan 2016-2020

Draft List of Suggested Projects for HCMC CCAP 2016-2020

- Legend
- Project already begun for preparation
 - Project already partially under operation/construction, or project to be prioritized by the proposal from Osaka City
 - Project to be implemented in the future

No	Sector	Project	Description of Project	Target of Project (*Urban area, etc. means that project with concrete implementation plan.)	Related plans/programmes of HCMC	Merits of Project Implementation	Experience of Osaka City	Relevant request from HCMC
II-1	Transportation	Traffic Demand Management	Optimization of traffic demand of private vehicle and public transportation is promoted, and smooth transportation flow is comprehensively ensured. Specifically, route guidance, traffic control/regulations, and the provision	Urban area	- HCMC CCAP 2015 Appendix 1-419 "Development in HCMC" - project in the social target program in SONRE, 2013-2014	- Mitigation of traffic jams - Improvement of air quality	Osaka City Basic Environmental Plan (Promotion of Traffic Demand Management (TDM) method) - Seek to the restraint of demand for vehicles due to the promotion of TDM methods 4,000 traffic signals (Presented at High-Level Symposium held in Osaka, 21 Oct. 2013)	- "HCMC does not have appropriate transportation policy and system" (comment from Dept. of Planning and Environment (DPE), at meeting with DRF on 21 Oct. 2013)
II-2	Transportation	Construction of Subway	Construction and analysis of data of fuel consumption, run distance, driving attitude, etc.	Urban area		- Improvement of fuel efficiency - Reduction of traffic accidents	Practical experience of Osaka City 4,000 traffic signals (Presented at High-Level Symposium held in Osaka, 21 Oct. 2013)	- "Improvement of fuel efficiency and load efficiency" (MoU signed by mayors of HCMC and Osaka City on 22 Oct. 2013, and presentation at High-Level Symposium at Osaka, on 21 Oct. 2013) - "Supports to establish IT cloud system including archives are appreciated" (comment from HCMC, at WOCAPW2.2 held in HCMC, on 14 Aug. 2014)
II-3	Transportation	Construction of Subway	Modal shift to public transportation by construction of subway	Urban area	Construction of Metro #1 of HCMC		Osaka City promotes the further utilization.	to a low-carbon city" (comment from HCMC, at WOCAPW2.2 held at HCMC, on 14 Aug. 2014)
II-4	Transportation	Development of underground malls	Creating pedestrian space in the underground area by developing underground malls	Urban area	Construction of Metro #1 of HCMC	- Mitigation of traffic jams - Pedestrian's safety - Development of underground malls	Management of 6 underground malls in Osaka city by a Osaka local company (Osaka Chikagai Corp., Co., Ltd.) - In order to secure pedestrian's safety - Contribution to the mitigation of traffic jams	"The management of underground infrastructures such as underground electric cables and pipes should be undertaken because they are under disorder." (Comment from HCMC, at WOCAPW2 held at Rex Hotel on 21 Aug. 2014)
II-5	Transportation	Promotion of Use of Subway	Promote the use of subway as an alternative transportation mode, to achieve modal shift to public transportation	Urban area	Construction of Metro #1 of HCMC	- Mitigation of traffic congestion - Improvement of air quality	Osaka City has 9 subway lines (total rail distance is 137.8km) and approximately 2.9 million passengers/day use them. In addition, Osaka City promotes the further utilization.	"Subway will contribute to a low-carbon city" (comment at the at WOCAPW2.2 held at SONRE on 22 Aug. 2014)
II-6	Transportation	Collection and management of traffic information	Collect and manage information on traffic volume, occurrence status of congestion, required travel time, etc. as basic information for traffic demand management	Urban area		- Mitigation of traffic jams - Improvement of air quality	Road traffic census (amount of traffic, speed and road conditions) of national and prefectural roads (including some city roads) are conducted once every 5 years.	
II-7	Transportation	Wide-range traffic control	Mitigate traffic congestion by traffic light cycle management by collecting information on traffic volume and congestion	Urban area		- Mitigation of traffic jams - Improvement of air quality	Road traffic census (amount of traffic, speed and road conditions) of national and prefectural roads (including some city roads) are conducted once every 5 years.	

Related plans/programmes of HCMC

Relevant request from HCMC



JCM Model Projects in Ho Chi Minh City

- **Utilization of Biogas from Solid Waste at Binh Dien Wholesale Market**

Japan implementer: Hitachi Zosen
GHG reduction: 3,355tCO₂/year



- **Eco-Drive Project with Digital Tachographs (HCMC and Hanoi)**

Japan implementer: Nippon Express
GHG reduction: 315tCO₂/year





Ongoing JCM Projects in Ho Chi Minh City

- Integrated energy efficiency improvement at buildings

Japan company: Shimizu Corporation



- Park & bus ride system with utilization of shopping mall parking lots

Japan company: Nikken Sekkei Research Institute



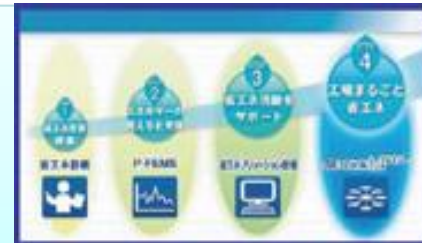
- Integrated energy-from-waste project

Japan company: Hitachi Zosen



- Energy efficiency improvement in factories

Japan company: Panasonic Corporation and Tepia Corporation Japan



- Photovoltaic power generation

Japan company: Next Energy & Resources Co., Ltd.



Solid Waste Management Projects

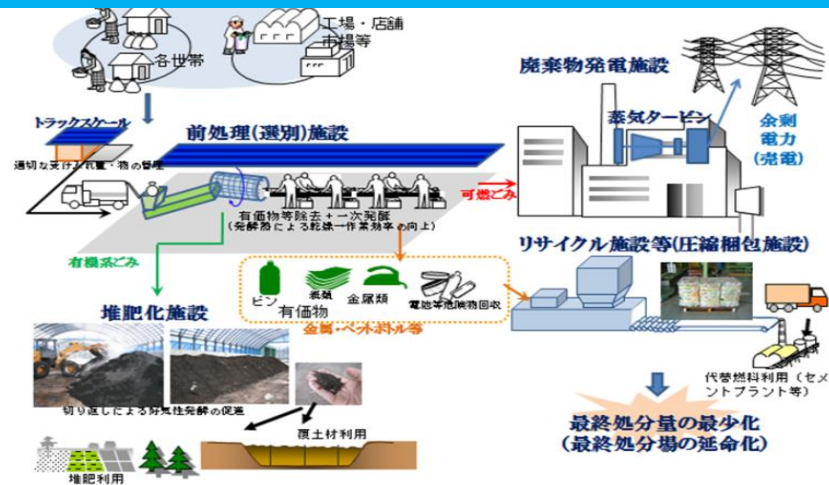
for Developing a Low Carbon City in Ho Chi Minh City

Future

Structural change of waste treatment

- The realization of a low carbon society
- Improvement of integrated solid waste management systems

Integrated energy-from-waste project



Diversify of lifestyle

Change in the quantity and quality of waste

Change in industry structure

Household waste separation at source



Utilization of biogas from solid waste at Binh Dien wholesale market



Current

- Waste disposal at Landfill sites
- Promotion of recycling
- Prevention of Illegal dumping



Low Carbon Society in tandem with Economic Growth

**Subway complex
(Ben Thanh Station)**



Underground shopping area



Waste-to-energy



Energy-efficient hospitals

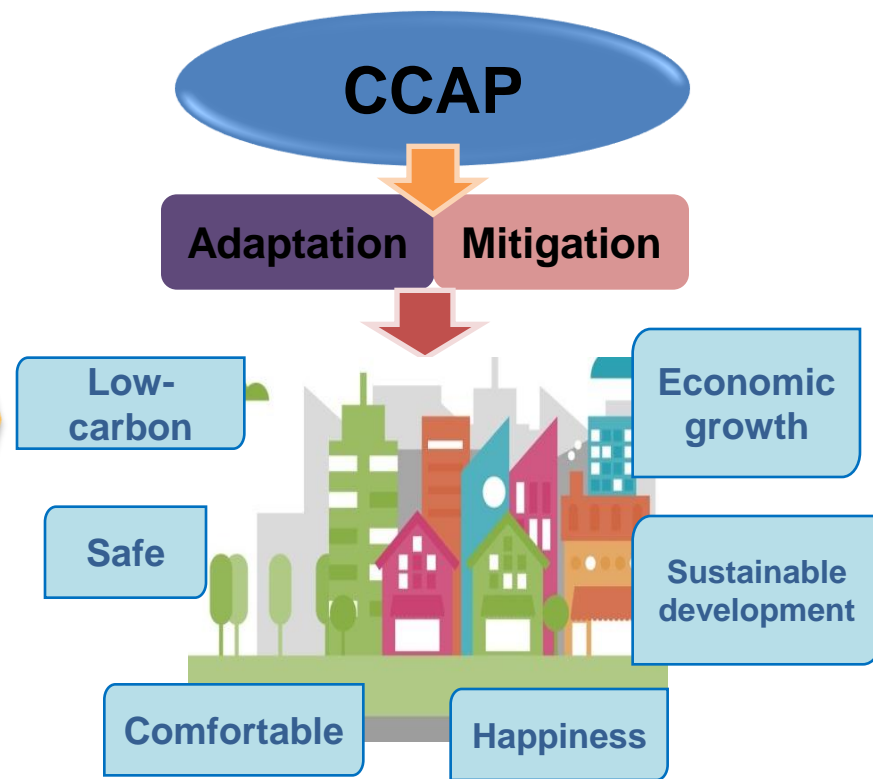
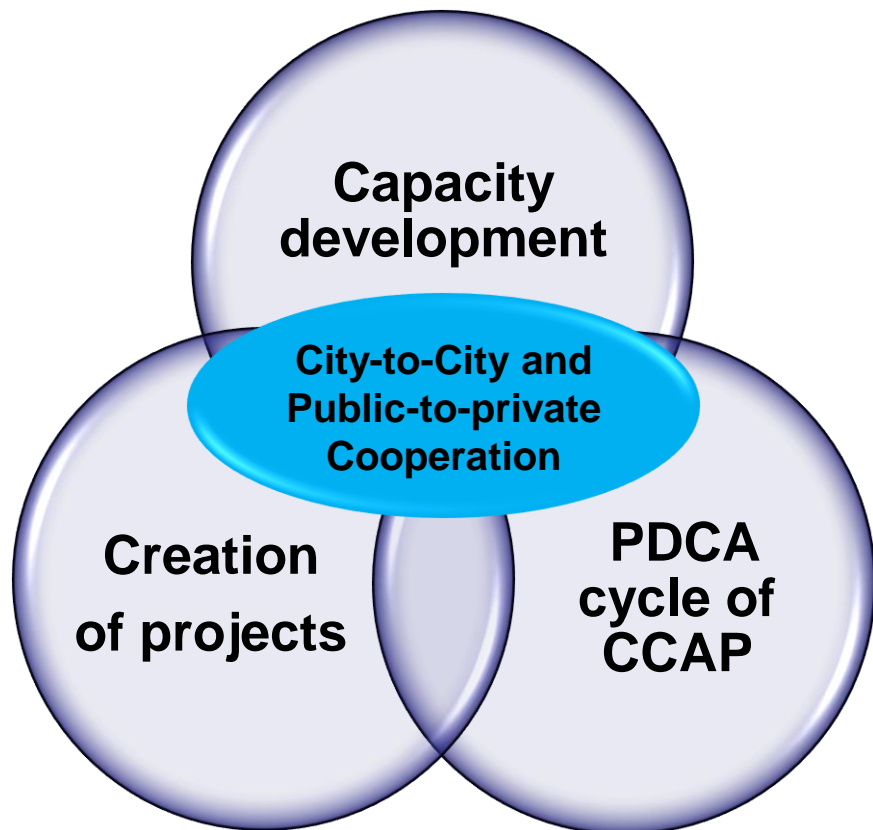


Promote the inter-city cooperation in a wide range field and support the safe, comfortable and low carbon town planning at Ho Chi Minh City



Toward the Realization of the Development of a Low Carbon City in Ho Chi Minh City

Sound Implementation of CCAP



“Ho Chi Minh City Climate Change Action Plan (CCAP) (2016-2020)”

In order to promote mid- and long-term climate change countermeasures, including mitigation and adaptation in Ho Chi Minh City



Expected outcomes from the inter-city Cooperation Project

Lifestyle improvement through economic development and the achievement of “leapfrog” development, in which there is simultaneous achievement between a low carbon, recycling oriented society and a naturally-symbiotic society.

- **International announcement through COP and other platforms**
- **Ho Chi Minh City will “leap” forward as a model for other megacities in Asia which face similar issues**
- **Contribution for GHG emission reduction and environmental conservation globally, using technologies in Osaka and Kansai**



Thank You for your kind attention

