



City-to-City Collaboration Programme for Low-Carbon Society 2017



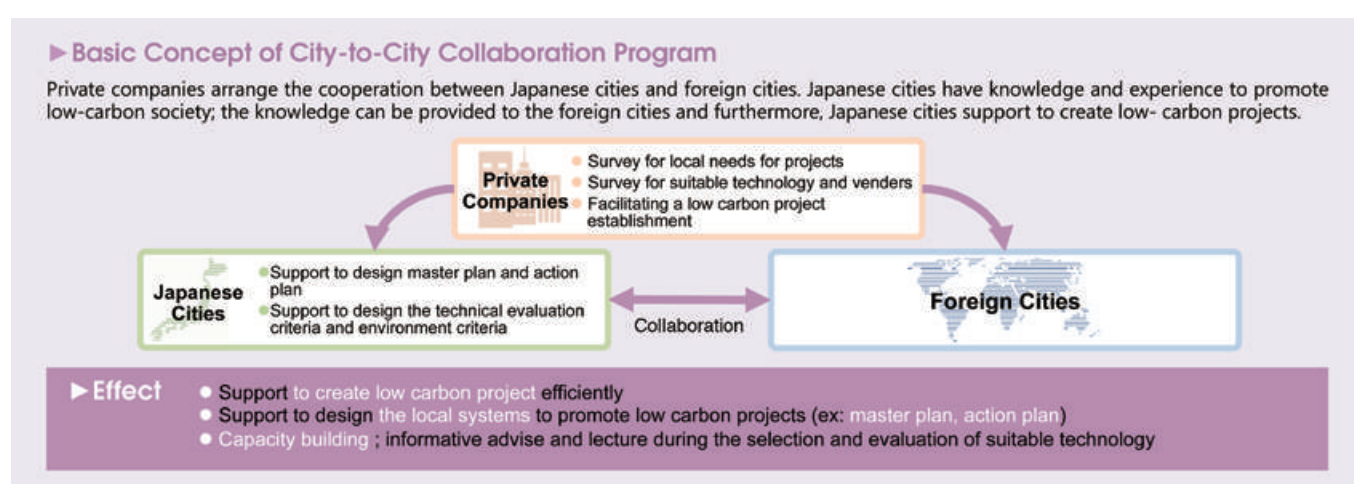
Ministry of the Environment

Overview of City-to-City Collaboration Programme for Low Carbon Society

The accelerated growth of population and urbanization in Asia is causing problems of road traffic, solid waste management and air and water pollution. Torrential rains, flooding, landslides and droughts are intensifying and all of them are considered as a result of climate change. Cities are the source of more than 70% of global CO₂ emissions, and furthermore, Asia is expected to be responsible for the half of global CO₂ emissions by 2050. Many Asian cities are also vulnerable to climate change. Therefore, the development of sustainable and low-carbon Asian cities is a crucial and urgent global challenge.

Under the above circumstances, the Ministry of the Environment, Japan (MOEJ) launched the "City-to-City Collaboration Programme for Low Carbon Society" in 2013. The programme supports the low-carbon city development in developing countries by transferring the knowledge and experiences of Japanese cities through city-to-city collaboration and identifying leading low-carbon technologies that can be introduced to the counterpart city with MOEJ's financing programme (see page 9) for the Joint Crediting Mechanism (JCM). The programme also offers the opportunities of capacity building for city government officials through the partnership building, project development and workshops/seminars.

Since cities are home to various types of infrastructure, technology, products and systems, low-carbon city development can bring benefits not only for climate change mitigation but also the improvement of living quality by ameliorating urban environments and services.



Joint Crediting Mechanism (JCM)

Joint Crediting Mechanism, JCM, is a means to facilitate the diffusion of leading low-carbon technologies, products, systems, services and infrastructure as well as the implementation of mitigation actions in developing countries of the JCM partners. The GHG emission reductions or removals produced by the JCM project is evaluated in a quantitative manner and used to achieve emission reduction targets towards the ultimate objective of the United Nations Framework Convention on Climate Change (UNFCCC).

List of City-to-City Collaboration Programme for Low Carbon Society in FY2017

Fukushima – Ayeyarwady, Myanmar

01	Study on Feasibility of Solar Power Generation System and Solar Powered Low-carbon Water Treatment System, and Promotion of Activities in Ayeyarwady Region	Implementation Body: Mitsubishi Research Institute, Inc.
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Fukushima – Ayeyarwady and Sagaing, Myanmar

02	Study on Feasibility of a Low-carbon Waste Treatment System and Micro-grid System and Promotion of Activities under Inter-regional Collaboration in Ayeyarwady Region and Sagaing Region.	Implementation Body: Mitsubishi Research Institute, Inc.
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Kanagawa – Phnom Penh, Cambodia

03	Methane Fermentation and Power Generation Project of Organic Waste Discharged from Markets	Implementation Body: Kojimagumi Co., Ltd.
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Kawasaki – Yangon, Myanmar

04	Project for Low Carbonization of Waste Management	Implementation Body: Nippon Koei Co., Ltd.
05	Project for Introduction of High-efficiency Pumps into Existing Pumping Station	
06	Waste to Energy Plant Project for Yangon City in Myanmar	Implementation Body: JFE Engineering Corporation

Kawasaki – Jakarta, Indonesia

07	Promotion on Green Innovation through City-to-city Collaboration	Implementation Body: Nippon Koei Co., Ltd.
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Yokohama – Bangkok, Thailand

08	Feasibility Study for Assisting Ports in Thailand to Reduce CO ₂ Emission and to Become "Smart Ports"	Implementation Body: Yokohama Port Corporation
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Yokohama – Batam, Indonesia

09	Project for Development of Low-carbon City through City-to-City Collaboration between Batam and Yokohama (Support of Green City Policy of Batam by Introduction of Smart LED Streetlighting System and Green Buildings)	Implementation Body: Nippon Koei Co., Ltd.
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Toyama – Semarang, Indonesia

10	Project toward Compact City Transportation System in Semarang, Indonesia	Implementation Body: Pacific Consultants Co., Ltd.
11	Project toward Resilient City by Solution-oriented Low Carbon Technologies Regarding Disaster Reduction, Environment and Energy Saving in Semarang, Indonesia	

Osaka – Ho Chi Minh, Viet Nam

12	Support for Low Carbon Promoting Projects through City-to-City Collaboration between Osaka and Ho Chi Minh (Promoting Energy Saving Technologies)	Implementation Body: Oriental Consultants Co., Ltd.
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Osaka – Quezon, Philippines

13	Support for Low Carbon Promoting Projects through City-to-City Collaboration between Osaka City and Quezon City (Promoting Solar Power Generation and Industry Energy Saving Technologies)	Implementation Body: Oriental Consultants Co., Ltd.
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Kitakyushu – Phnom Penh, Cambodia

14	Project to Realize Low Carbonization in Phnom Penh Capital City, through Introduction of Saving Energy Technologies and Renewable Energies (Kitakyushu-Phnom Penh Capital City Cooperation Project)	Implementation Body: NTT Data Institute of Management Consulting, Inc.
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Kitakyushu – Mandalay, Myanmar

15	Project to Realize Low Carbonization in Mandalay Region, through Introduction of Saving Energy Technologies and Renewable Energies (City of Kitakyushu- Mandalay City Cooperation Project)	Implementation Body: Nikken Sekkei Civil Engineering, Ltd.
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Kitakyushu – Chiang Mai, Thailand

16	Introduction of High Efficient Waste Processing Facility under Integrated Waste Management Plan in Chiang Mai, Thailand	Implementation Body: EX Research Institute Limited
17	Project to Realize and Expand Low Carbonization Model Projects in Ecological Industrial Town by Using JCM in Chiang Mai Province (Kitakyushu- Chiang Mai Cooperation Project)	Implementation Body: NTT Data Institute of Management Consulting, Inc.

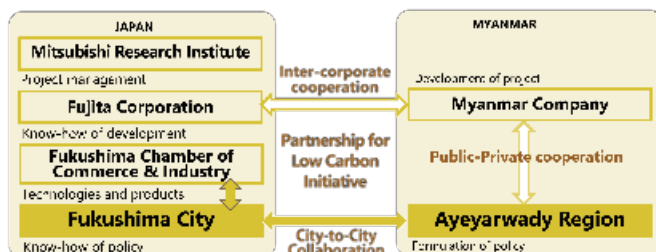
Kitakyushu – Hai Phong, Viet Nam

18	Project to Accelerate Low Carbonization in Hai Phong City (Kitakyushu-Hai Phong Cooperation Project)	Implementation Body: NTT Data Institute of Management Consulting, Inc.
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01 Study on Feasibility of Solar Power generation System and Solar Powered Low-carbon Water Treatment System, and Promotion of Activities in Ayeyarwady region

Mitsubishi Research Institute, Inc.

Under the "Partnership for Low-Carbon Initiative in Ayeyarwady" with Fukushima City, the applicability of solar power generation system and solar powered decentralized water treatment system to new industrial parks is studied. The study also suggests to support local efforts on creating regional water treatment system through capacity building and planning support for the project implementation.



Project Outline

- ▶ Local needs survey
- ▶ Information sharing on Japanese experiences, know-how and technologies for utilization
- ▶ Feasibility study of rice husk power generation project
- ▶ Estimation of GHG emission reduction potential
- ▶ Consideration of project and policy proposal
- ▶ Policy dialogue and workshop

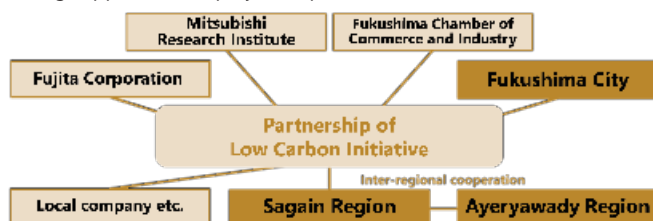


Field study in Fukushima City

02 Study on Feasibility of a Low-carbon Waste Treatment System and Micro-grid System and Promotion of Activities under Inter-regional Collaboration in Ayeyarwady region and Sagaing region

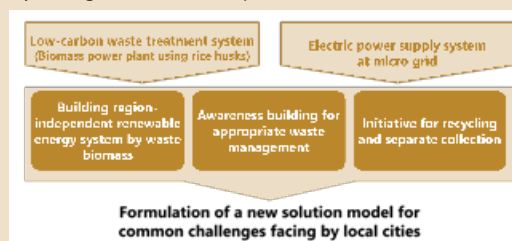
Mitsubishi Research Institute, Inc.

Under the inter-regional collaboration between Ayeyarwady region and Sagaing region and the collaboration with Fukushima City, the feasibility studies on a low-carbon waste treatment system (e.g. power plant projects using fuels such as rice husks) and a micro grid system are conducted. The study also facilitates local efforts on creating regional waste treatment system and local distributed self-reliance power system through capacity building and planning support for the project implementation.



Project Outline

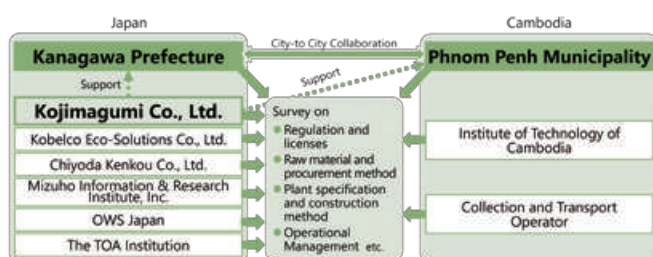
- ▶ Local needs survey
- ▶ Information sharing on Japanese experiences, know-how and technologies for utilization
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03 Methane Fermentation and Power generation Project of Organic Waste Discharged from Markets

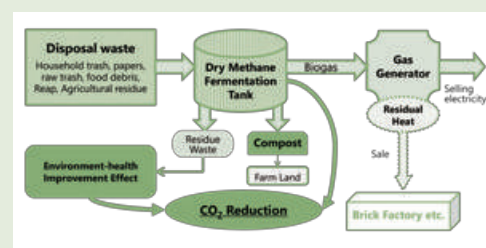
Kojimagumi Co., Ltd.

Most landfill waste in Phnom Penh are composed of organic wastes such as trash papers and agricultural residues. The feasibility study on co-generation business through dry methane (CH₄) fermentation is conducted to optimize the waste treatment system in Phnom Penh. Generated renewable energy is used for electricity sales and heat supply for surrounding facilities. The project aims to reduce GHG emissions significantly from disposal site.



Project Outline

- ▶ Improvement of air and water quality by reducing the amount of organic-waste to be landfilled
- ▶ Reduction of CH₄ emission by recycling organic waste
- ▶ Generation of clean energy

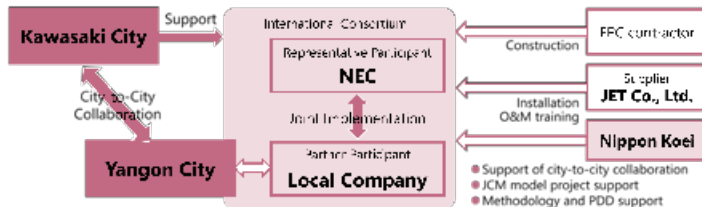


Organic Waste Treatment by Dry Methane Fermentation in Phnom Penh

04 Project for Low Carbonization of Waste Management

Nippon Koei Co., Ltd.

Yangon signed a Memorandum of Understanding (MOU) with Kawasaki in March 2016 to promote the city-to-city collaboration and create low carbon society. In this project, the optimization of garbage collection route is considered by measuring the amount of garbage in garbage bins and containers with the real-time sensors. The collected garbage is efficiently transformed into fuels for energy generation at a recycle facility.



Project Outline

- Transformation of garbage into feeds, fertilizer, fuel, etc., through fermentation and drying process with indigenous microbes
- Optimization of garbage collection route in Yangon with Internet of Things (IoT) technologies

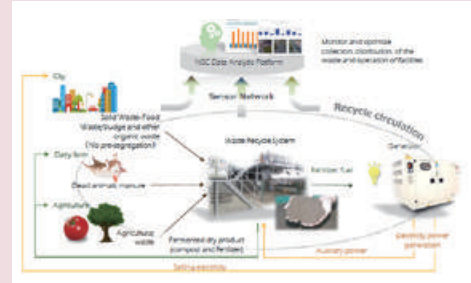
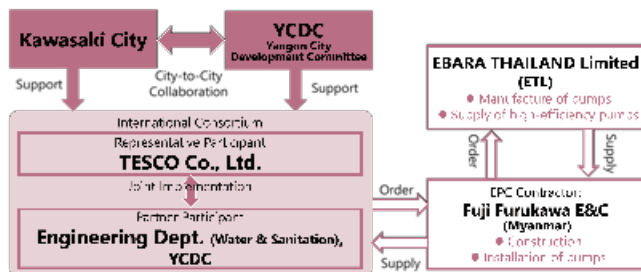


Image of Smart Waste Recycle

05 Project for Introduction of High-efficiency Pumps into Existing Pumping Station

Nippon Koei Co., Ltd.

Yangon signed a Memorandum of Understanding (MOU) with Kawasaki in March 2016 to promote the city-to-city collaboration and create low carbon society. As a pilot project of the low carbon action plan, high-efficiency pumps are planned to be installed into the existing pumping stations. This project contributes to GHG emission reduction and efficient management of supply in Yangon.



Project Outline

- To install new high efficiency pumps as replacement of existing aged pumps
- To save electricity consumption (more than 20%) compared to existing condition
- To contribute to stable water supply in Yangon city



The Existing Pumps in Yangon



High-efficiency Pumps

06 Waste to Energy Plant Project for Yangon City in Myanmar

JFE Engineering Corporation

Yangon signed a Memorandum of Understanding (MOU) with Kawasaki in March 2016 to promote the city-to-city collaboration and create low carbon society. This project aims to realize sustainable society by introducing a large-scale waste-to-energy power plant developed in Japan. This technology contributes not only to reduce GHG emissions but also to overcome the electric power shortage in Yangon.



Project Outline

- Research for social and economic situations
- Research for legal systems
- Planning of large scale of waste-to-energy power plant
- Feasibility evaluation
- Planning of business scheme



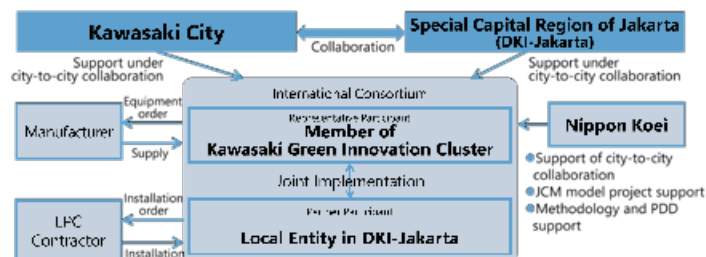
First Waste to Energy Plant in Myanmar constructed by JFE Engineering Corporation

07 Promotion on Green Innovation through City-to-City Collaboration

Nippon Koei Co., Ltd.

KA ASAKI
JAKA TA

The project formulation study is conducted to examine the possibility of installing energy efficiency technologies in office buildings / factories in Jakarta. The study aims not only to diffuse advanced low-carbon technologies but also to develop mid-and-long-term city-to-city collaboration relationship between Jakarta and Kawasaki through sharing knowledge and know-how between them.



Project Outline

- ▶ To conduct researches in the area of office buildings / factories with possible application of energy saving technologies.
- ▶ To identify technologies which could reduce emission of CO₂ by achieving energy efficiency of office buildings / factories, such as temperature control in the furnace with a sensor system, solar power generation, LED lights, etc.



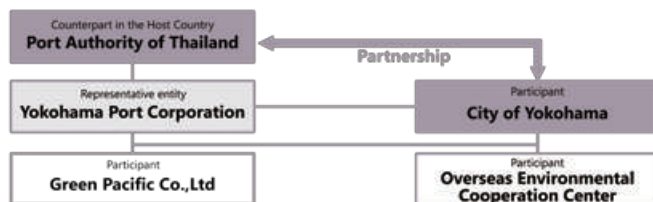
Introduction of technologies considered under the study

08 Feasibility Study for Assisting Ports in Thailand to Reduce CO₂ Emission and to Become "Smart Ports"

Yokohama Port Corporation

YOKOHAMA
BAN KOK

The Port Authority of Thailand (PAT) has been working on an environmental initiative called "Green Port Project" to realize environmentally friendly port. This feasibility study (FS) will contribute to the progress of the project by utilizing experience and know-how at the Port of Yokohama. This FS is to apply low carbon efforts and smart ports initiatives by utilizing advanced low carbon technologies and services, etc., which were proven at the Port of Yokohama, to major ports in Thailand such as Bangkok Port, Leam Chabang Port and other ports managed by the PAT.



Project Outline

- ▶ Aiming for the realization of implementation the Smart Port which uses energy efficiently by linking LED lighting and electric / hybrid cargo-handling equipment with PV power generation.
- ▶ Studying GHG emission reduction amount and business profitability after the low carbon facilities is introduced.



Solar power generation system on port facility



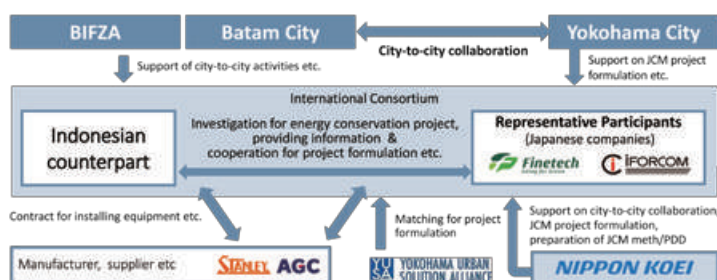
LED Lighting

09 Project for Development of Low-carbon City through City-to-City Collaboration between Batam and Yokohama (Support of Green City Policy of Batam by Introduction of Smart LED Street Lighting System and Green Buildings)

Nippon Koei Co., Ltd.

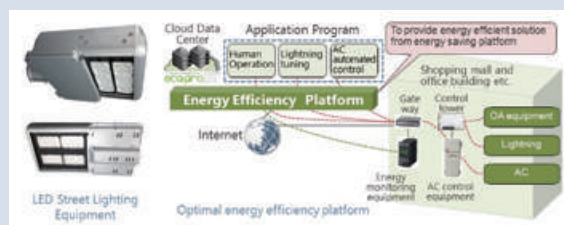
YOKOHAMA
BATAM

Batam and Yokohama signed the Letter of Intent in 2015 to promote technical cooperation. Since then, two city governments, Batam Indonesia Free Zone Authority (BIFZA) and Institute for Global Environmental Strategies (IGES) formed a task force to realize the smart and green island of Batam. This study is conducted to formulate projects for installing smart LED street lightings and introducing green buildings. The study also supports drafting Mayor's regulations for continuous promotion of these green technologies in Batam.



Project Outline

- ▶ Installing smart LED street lighting system with functions of dimming and remote monitoring
- ▶ Introducing green technology for shopping malls and office buildings
- ▶ Developing strategies for standardization of LED street lights and green buildings in Batam

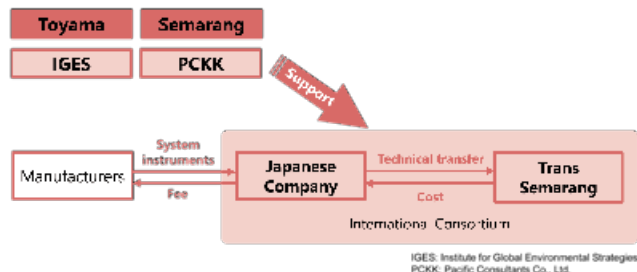


Optimal energy efficiency platform based on the needs of users

10 Project toward Compact City Transportation System in Semarang, Indonesia

Pacific Consultants Co., Ltd.

This study aims to formulate a project to build a low-carbon transportation system in Semarang by applying knowledge and experiences of Toyama City on the "Compact City Public Transportation System". The study also supports the revision of Semarang's Regional Transportation Plan toward the future vision to introduce the Light Rail Transit (LRT) based on the knowledge and experiences of Toyama City.



Project Outline

- Improvement of operation efficiency of existing Bus Rapid Transit (BRT).
Promoting modal shift from private vehicles and motorbikes.

- [Operation Improvement plan]
 - Introduction of IC cards
 - Separation and remodeling of doors for entrance and exit
 - Bus location system
 - Introduction of information provision service



Current door (one in the middle)

- Conversion of existing diesel BRT to compressed natural gas (CNG) bus

Remodeling existing BRT (diesel fuel) to CNG bus to reduce GHG emissions by fuel conversion.

- [Accompanied plan]
 - Construction of CNG stations



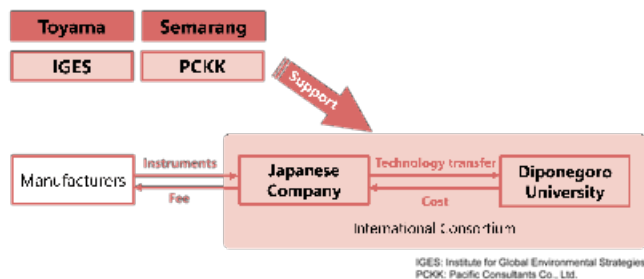
CNG bus

CNG installment

11 Project toward Resilient City by Solution-oriented Low Carbon Technologies regarding Disaster Reduction, Environment and Energy Saving in Semarang, Indonesia

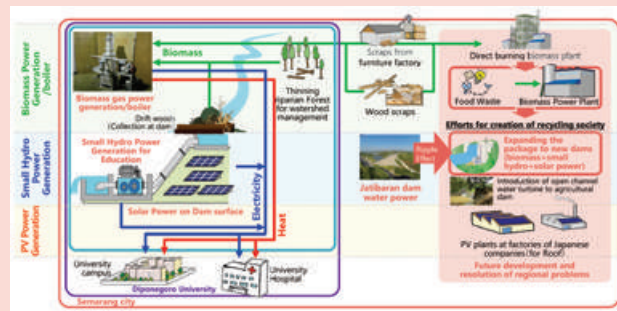
Pacific Consultants Co., Ltd.

The study aims to formulate a project to introduce a combined renewable energy system consisted of micro hydro power (MHP)/biomass/solar power generation to the Diponegoro University together with the human resource development to overcome urban vulnerability. The knowledge of Toyama City, as the Environmental Future City, is shared with Semarang under the City-to-City Collaboration and as members of 100 Resilient Cities. The project team also conducts the feasibility study of energy-saving solutions in the industrial sector.



Project Outline

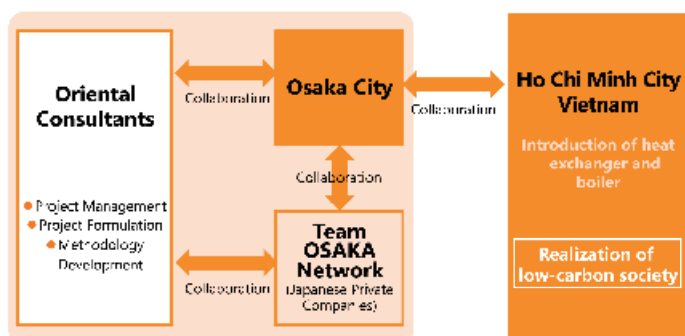
- Installation of MHP generator with the water flow management technologies with PV power generators
- Installation of biomass power generator with waste management
- Feasibility study for energy efficiency in the industrial sector



12 Support for Low Carbon Promoting Projects through City-to-City Collaboration between Osaka and Ho Chi Minh (Promoting Energy Saving Technologies)

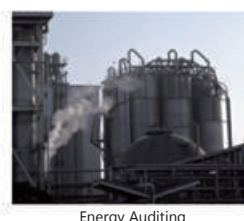
Oriental Consultants Co., Ltd.

Support for the implementation of Ho Chi Minh's Climate Change Action Plan is being provided through the City-to-City Collaboration between Osaka and Ho Chi Minh. As part of the action plan, feasibility studies are being conducted for the introduction of low-carbon technology such as heat exchangers and once-through boilers.



Project Outline

- Factory energy auditing
- Introduction of heat exchanger and boiler



Energy Auditing



Heat Exchanger



Once-through Boiler



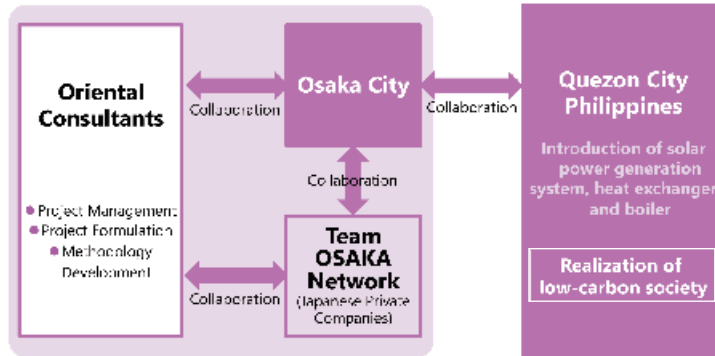
Republic of the
PHILIPPINES

OSAKA
Q
ON

13 Support for Low Carbon Promoting Projects through City-to-City Collaboration between Osaka City and Quezon City (Promoting Solar Power Generation and Industry Energy Saving Technologies)

Oriental Consultants Co., Ltd.

Through the City-to-City Collaboration between Osaka and Quezon, a feasibility study on solar power generation and energy saving in factories is being conducted and a JCM manual for facilitating future projects is being developed.



Project Outline

- ▶ Introduction of solar power generation
- ▶ Factory energy auditing
- ▶ Introduction of heat exchanger and boiler



Solar Power Generation System



Heat Exchanger



Once-through
Boiler



Energy Auditing



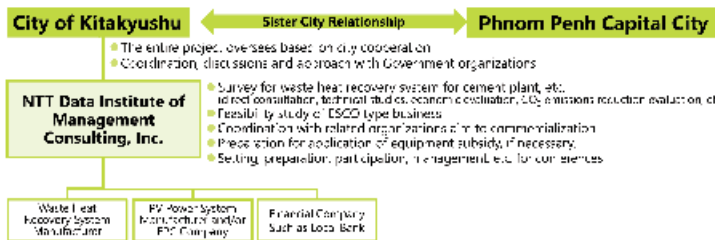
KINGDOM OF
CAMBODIA

KITAKYUSHU
PHNOM PENH

14 Project to Realize Low Carbonization in Phnom Penh Capital City, through Introduction of Saving Energy Technologies and Renewable Energies (Kitakyushu-Phnom Penh Capital City Cooperation Project)

NTT Data Institute of Management Consulting, Inc.

Under the framework of the sister city agreement between Kitakyushu and Phnom Penh, this project aims to low-carbonize Phnom Penh through making a proposal that meets the demand of a company for cutting energy-cost and creating an ESCO type business model, which combines financial service and reduces the cost burden of customers.



Project Outline

- ▶ Customized proposal for large enterprises which have needs for energy cost reduction
- ▶ Proposal of Energy Service Company (ESCO) type business model packaged with financial services



Study of Waste Heat Recovery System for Cement Plant



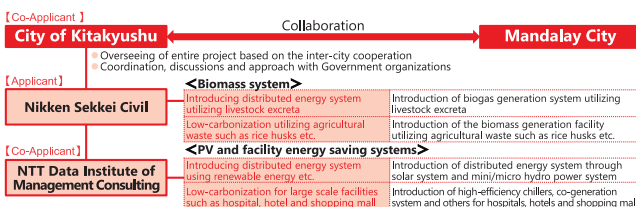
REPUBLIC OF
the UNION OF MYANMAR

KITAKYUSHU
MANDALAY

15 Project to Realize Low Carbonization in Mandalay Region, through Introduction of Saving Energy Technologies and Renewable Energies (City of Kitakyushu- Mandalay City Cooperation Project)

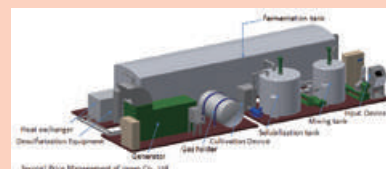
Nikken Sekkei Civil Engineering LTD.

Under the cooperative relationship between Mandalay and Kitakyushu, the feasibility studies (FS) are conducted for 1) the introduction of biomass power generation using agricultural waste, livestock excreta, etc. and 2) the introduction of energy saving (ES) and renewable energy (RE) technologies such as PV to large-scale hotels, commercial facilities, etc. Significant GHG emissions reduction is expected through promoting the introduction of ES and RE technologies in Mandalay.



Project Outline

- ▶ FS for biomass power generation utilizing agricultural waste
- ▶ FS for biogas power generation utilizing livestock excreta
- ▶ FS for ES and RE technologies at large-scale facilities
- ▶ FS for distributed energy system using RE
- ▶ Research of local needs related to low carbonization and environmental conservation other than energy sector



Biogas power generation utilizing livestock excreta

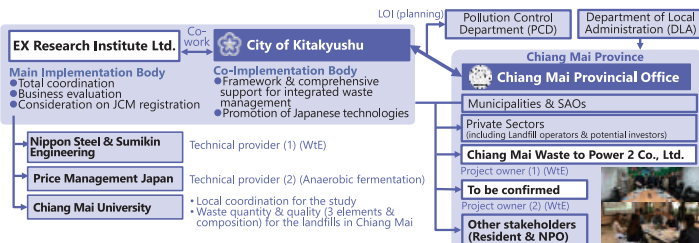


Image of High Efficiency Chiller Installation

16 Introduction of High Efficient Waste Processing Facility under Integrated Waste Management Plan in Chiang Mai, Thailand

EX Research Institute Limited

This study is implemented with the purpose of improving the waste management system in Chiang Mai province through (1) the promotion of 3Rs activities and (2) appropriate waste processing and disposal by accelerating proper infrastructure development. City of Kitakyushu introduces their experience and know-how in waste management to local authorities in the province, and conducts the feasibility study on the projects of Waste to Energy plant (WtE) and Biogas Digester with Japanese companies.

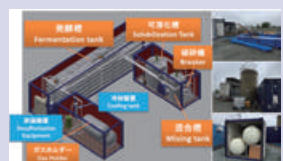


Project Outline

- Promotion of WtE and biogas collection and utilization unit to be introduced in the province
- WtE plant for waste management centres in large scale, such as a plant with capacity of 500 tons/day combustion + 8MW power generation for the landfill located in the southern part of the province
- Biogas plant for waste management centre in small size



Waste to Energy Plant
(Nippon Steel & Sumikin Engineering Co., Ltd.)

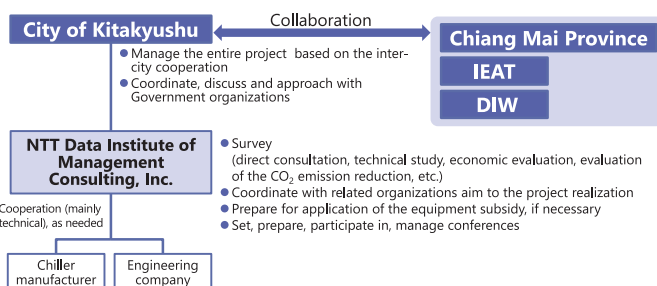


Anaerobic Digester (Container Type)
(Japan Price Management Co.)

17 Project to Realize and Expand Low Carbonization Model Projects in Ecological Industrial Town by Using JCM in Chiang Mai Province (Kitakyushu- Chiang Mai Cooperation Project)

NTT Data Institute of Management Consulting, Inc.

Under the cooperation among Kitakyushu, Chiang Mai Province, the Department of Industrial Work (DIW) and the Industrial Estate Authority of Thailand (IEAT), this project aims to reduce large amount of GHG emissions from industrial parks and commercial facilities in Chiang Mai Province through promoting energy saving and the introduction of renewable energy.



Project Outline

- Lateral development of waste heat recovery power generation project
- Discovering opportunities for applying low-carbon technologies by equipment renewal or introduction of new facilities



Industrial zone in Thailand



18 Project to Accelerate Low Carbonization in Hai Phong City (Kitakyushu-Hai Phong Cooperation Project)

NTT Data Institute of Management Consulting, Inc.

Under the cooperative relationship between Haiphong and Kitakyushu, the feasibility studies are conducted for the following projects: 1) Waste power generation business with the mixed combustion of municipal waste and industrial waste, 2) Project for large CO2 emission reduction such as waste heat recovery power generation at a cement factory, and 3) Low carbonization project combined with funding mechanism in a remote island.

Project Outline

- Waste power generation business with mixed waste of municipal waste and industrial waste discharged from industrial zones
- Project for large CO2 emission reduction such as waste heat recovery power generation at a cement factory
- Low carbonization project combined with funding mechanism in a remote island



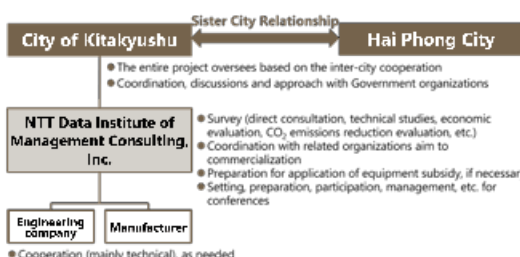
Waste disposal site



Cat ba island



Cement factory



A JCM Model Project formulated in the framework of City-to-City Collaboration Programme

■ What is “JCM Model Projects” ?

The “JCM Model Projects” is a financing programme to financially support the implementation of projects which reduce CO₂ emissions by introducing leading low-carbon technologies and evaluate Japan’s contribution to the emission reductions or removals with appropriate MRV methodologies. This acquired JCM credits are used for achieving Japan’s GHG emissions reduction target. The approved projects can receive financial support for installing low-carbon facilities, equipment and services.

*MRV: Measuring, Reporting and Verification

Yokohama - a Nang

Introduction of High Efficiency Water Pumps in Da Nang City

■ Result of the City-to-City Collaboration Programme

Based on the MOU for the technical cooperation between Yokohama and Da Nang, the followings were implemented with the support from Department of Planning and Investment (DPI): inspection of the current operation status of existing pumps in DAWACO; identification of high efficiency pumps based on the system requirement and its estimated CO₂ emission reductions; and clarification of the processes including tender for procuring new equipment.

■ Outline of GHG Mitigation Activity

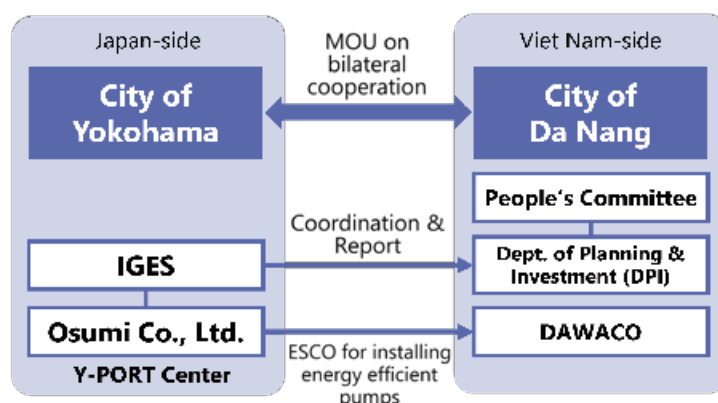
This project aims to achieve energy efficiency and GHG emission reductions by renovating the existing water pumps in Ca Do Water Treatment Plant with highly efficient ones.

■ Expected GHG Emission Reductions: 1,145 tCO₂/year

The above figure is calculated conservatively with consideration of power consumption differences between existing and new pumps.

■ Project Implementer

Japan: Yokohama Water Co., Ltd
Viet Nam: Danang Water Supply Company (DAWACO)



Knowledge Exchange and Dissemination of the Programme

MOEJ provides learning opportunities for cities and other stakeholders participating in the City-to-City Collaboration Programme through workshops and seminars held in Japan. Those were held in Kitakyushu (October 2016) and Tokyo (January 2017) and participants from 18 cities of 8 countries learned the whole picture of the JCM, progress made by other participating cities and Japanese low-carbon technology by making site visits. Participants from Asian cities also visited their Japanese partner cities to strengthen the linkages between them by having meetings with local stakeholders. The progress and outcomes of the Programme are shared with a wider audience on such occasions as side-events at the UNFCCC-COP and seminars in Japan.



Workshop



Site Visit



Open Seminar

Results of the City-to-City Collaboration Programme

Kitakyushu-Phnom Penh

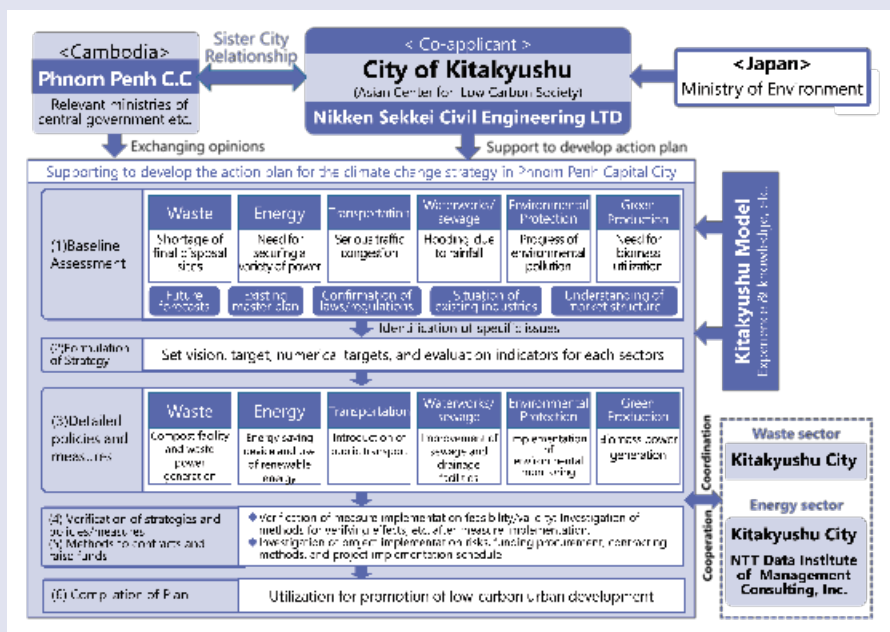
Phnom Penh City Climate Change Strategic Action Plan (PPCCSAP)

Project Overview

Cambodia has been identified as a country which will be strongly affected by climate change. The Cambodian government launched the Cambodia Climate Change Strategic Plan 2014-2023 and action plans of each department (2015-2018). However, specific measures were not implemented and specific projects for the reduction of GHG were needed. Therefore, on the basis of the sister city agreement concluded in March 2016 between the City of Kitakyushu and Phnom Penh City, the project team supported the development of PPCCSAP for 6 sectors of waste, energy, transportation, waterworks/sewage, environmental conservation and green production.

Results of the Project

Holding individual meetings and workshops with related administrative bodies, private sectors and universities, stakeholders could understand the current status, challenges, visions and directions of policies of the 6 sectors. The project team proposed specific action plans and pilot projects (PP) in each sector, and currently, the project team works for the implementation of PP. The projects included in the PPCCSAP are expected to be implemented by many of donors in and out of Cambodia.



Serious traffic congestion



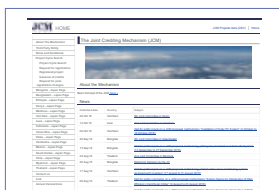
Workshop in Phnom Penh

Guidebook “Creating Sustainable Low-Carbon Cities through City-to-City Collaboration”

MOEJ published the guidebook entitled “Creating Sustainable Low-Carbon Cities through City-to-City Collaboration” to promote the City-to-City Collaboration programme to city officials and private companies interested in the programme.



Relevant Website



The Joint Crediting Mechanism

<https://www.jcm.go.jp/>

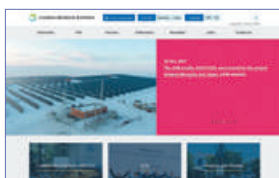
This official platform provides essential information and updates for the JCM to the public.



Web Portal for Low Carbon Development in Asia

<http://www.env.go.jp/earth/coop/lowcarbon-asia/english/>


This portal provides consolidated information regarding international negotiations and related policy trends, policies, and support systems for those who are interested in achieving low-carbon development in Asia.



Carbon Markets Express

<https://www.carbon-markets.go.jp/eng/>

This website will introduce JCM and carbon markets in the world, based on the information released by the government of Japan.



International Cooperation Office, International Strategy Division,
Global Environmental Bureau, Ministry of the Environment, JAPAN

Address:
3rd Floor, Godochosha No. 5, 1-2-2 Kasumigaseki,
Chiyoda-Ku, Tokyo 100-8975 Japan
TEL: +81-3-5521-8248
Fax: +81-3-3581-3423

Editor
Institute for Global Environmental Strategies
Kitakyushu Urban Center

Address:
International Village Center 3F, 1-1-1 Hirano,
Yahata-Higashi-ku, Kitakyushu City, 805-0062 Japan
TEL: +81-93-681-1563
Fax: +81-93-681-1564