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*Efforts for City to City Cooperation*  
*- Practical examples -*

**Hiroyuki MABUCHI**

Director for Water quality Management  
Sewerage and Rivers Division  
Public Works Bureau  
**Osaka City**

# Osaka City's urban management

Problems in the past (Water , Air Pollution, Solid waste) 1960's



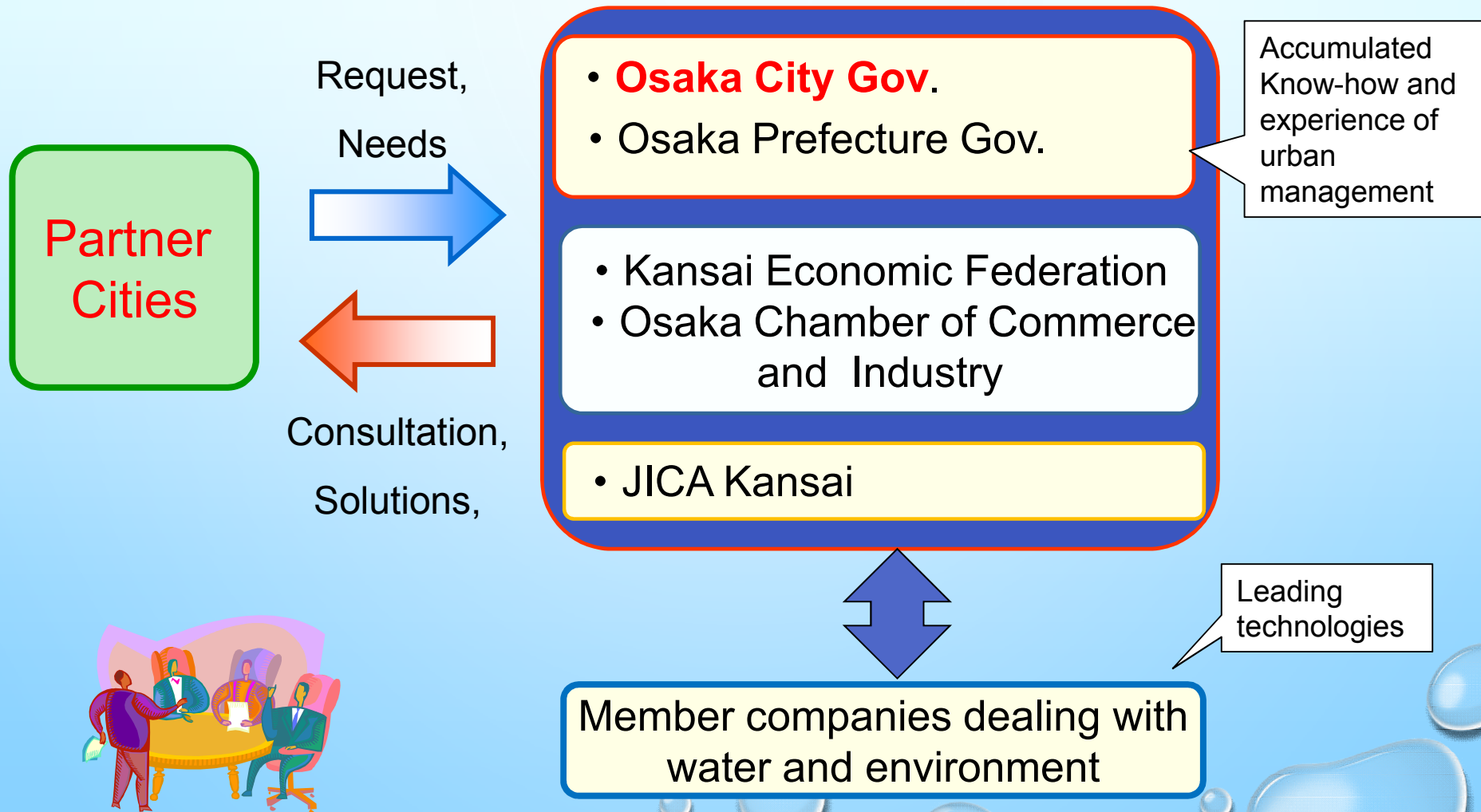
After extensive countermeasures



<Know-how and experience of pollution control >

# OWESA

## Osaka Water & Environment Solutions Association





*Our Efforts for HCMC Ho Chi Minh City  
( Vietnam )*

# Cooperation between Osaka and HCMC

## **Memorandum of Understanding in the field of water and environment** signed in July 7, 2011, renewed in 20 Mar. 2016

Purpose is to promote

- Economic relation
- Environment and water management, environment conservation, water, urban drainage wastewater treatment, solid waste



## **Memorandum of Understanding on Developing Low-Carbon City** signed in 22 Oct.2013, renewed 6 Sep. 2016

Purpose is to promote

- Capacity development for managing climate change in HCMC
- Project finding utilizing JCM (Joint Crediting Mechanism) scheme
- Awareness raising of global warming prevention and information sharing



# Cooperation Menu for sewerage development in HCMC

## 1. Dispatch technical experts

- Dispatch JICA long/short term sewerage experts to SCFC that is responsible for sewage and storm water drainage (2011-2014)

## 2. Capacity Building

- Organize training course (group / dedicated for Vietnam) in Osaka

Total 109 persons

## 3. Project formation

- On site investigation by sewage experts



Long term Experts



Training course (2012~)

# Project implementation for sewerage management for HCMC



## **Project for Capacity Development on Sewerage Management in HCMC (2011.9~2014.9)**

- Dispatch long(2persons)/short(10persons) term Experts from Osaka city
- Capacity building for proper O&M of STP
- Sewerage Mapping and information system



## **Project for Capacity Improvement for Urban Drainage Management in HCMC (2013-2016)**

- Efficient sewer cleaning inspection and repairing and safety management in O&M of sewer
- Sewerage Mapping and information system development
- Pipeline Rehabilitation Technique for aging pipes in HCMC



## **Program for Trenchless Sewer Rehabilitation Technology in Vietnam (2014-2015)**

- Pilot project for rehabilitation of aged pipe
- Establishment of technical criteria and estimating criteria of construction cost

# Dedicated training course for Vietnam

As of 2017.8.31

Course	Target	Year / times	Participants from Vietnam
Group training	O&M of STP Storm water drainage	1991 ~ / 9 times	15
Dedicated for Vietnam	Sewerage Management Administrative management	2011 ~ / 7 times	94
<b>Total</b>			<b>109</b>





# Project formation for trenchless sewer rehabilitation

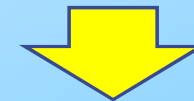
## Problems



## Solution



Program for Trenchless Sewer Rehabilitation



Study is underway toward  
**Japan's Grant Aid project**

The background is a light blue gradient with several realistic water droplets of various sizes scattered across the top and bottom edges. The text is centered in the middle of the page.

*Our Efforts for Yangon*  
*( Myanmar )*

# Our efforts in Yangon

2012

Mission team of Kansai Economic Federation  
Study on “Formulation of the plan for sewerage system development in Myanmar” (MLIT Study)



2013

Technical Exchange Program on Wastewater Management (CLAIR program)

2014

**Signing Memorandum of understanding on cooperation in key areas water, sewage, solid waste, urban planning**



2015

Capacity development of Sewer Pipes O&M and Rehabilitation Project (JICA Partnership Program, 2014 ~2016)

2016

Study for staged sewerage development plan in Yangon. (MLIT Study, 2016)

2017

Capacity development of Water quality management of STP Project (JICA Partnership Program, 2018~)



# Project implementation for wastewater management for Yangon



## Study on “Formulation of the plan for sewerage system development in Yangon” (2012)

- Engineering Investigation on O&M of STP in Yangon
- Basic study on current situation of urban drainage



## Technical Exchange Program on Wastewater Management (2013)

- Training course for O&M technique of STP
- Trenchless Sewer Rehabilitation Technology



## Capacity development of Sewer Pipes O&M and Rehabilitation Project (2014-2016)

- Onsite training of O&M sewer pipe (inspection, cleaning, rehabilitation)
- Management of Sewerage Mapping and information system

# Various Activities in 2016



The training of maintenance of sewer



Pilot project on improvement of old sewerage system



Field training for improving treated wastewater quality in sewage treatment

  
**Next Project**

# Toward SDGs

To achieve the SDGs ,Osaka City will continue to provide various technical assistance and support capacity development for the self-sustainable O&M of sewerage system.

“Osaka Water & Environment Solutions Association”

With our support, solutions will be found!

Thank you for your attention

