Input & Outcome of the Corporation
Phnom Penh Water Supply Authority with
Waterworks of Kitakyushu City

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City of Kitakyushu

- Western part of Japanese archipelago, northernmost tip of Kyushu ⇒ Gateway to Asia
- Manufacturing city with industrial and technical capacity ⇒ Steel, chemical, machinery, ceramics, IC, other
- Rich, natural surroundings ⇒ 210km coastline, 40% of city area is forests

Basic Data
- Area: 488km²
- Population: 980,000
- Ave. temp: 16°C
- Ave. rainfall: 1,600mm
- GDP: 3.5 trillion yen
City of Kitakyushu

- 1901: The first government-managed steelworks in Japan
- Developed with progressing of heavy industry
- 1960s: Seriously polluted city
- 1971: Tackle to control pollution

Gray City to Green City → the World Capital of Sustainable Development

One of Green Cities Program of OECD
Waterworks Bureau of City of Kitakyushu

Waterworks Bureau

Established in 1911

Production Capacity 769,000m³/D

Fighting with polluted water resource

Fighting with water leakage ← Huge difference of altitude

Technical cooperation and Expansion of Water services to adjoining cities

International Cooperation

- Phnom Penh Water Supply Authority (PPWSA) + 8 cities of Cambodia/
  Haiphong of Vietnam/ Dalian of China

- Technical cooperation with MHLW, JICA/ Consulting services

- O & M of facilities/ NRW reduction/ Human resource management
History

- 1993  First Expert from Kitakyushu
- 2001-2003 Transfer of Distribution monitoring system
- 2003-2006 Capacity Building Project phase 1 supporting by JICA
  - Kitakyushu → PPWSA
- 2007-2012 Capacity Building Project phase 2 supporting by JICA
  - PPWSA/Kitakyushu → Water Supply Utilities of Provincial towns

Contents

- Capacity Building
- Formulation of Standard Operation Procedures
- Reduction of Water Losses
- Carbon Emission Reduction Program
Capacity Building in Cambodia

Phase 1 Project
In Phnom Penh

Input
Huge effort from PPWSA
Experts from Japan

Outcome
* NRW Reduction
  → Financial Soundness
* Drinkable Tap Water
  → Peoples Life
* Skilled staffs
  → New teachers

Phase 2 Project
In 8 provincial cities

Input
Rehabilitation by JICA
Experts from PPWSA/Japan

Outcome
* NRW Reduction
  → Reliable Tap Water
* Peoples Life
* Skilled staffs
  → Stable operation of WTP
PPWSA makes big effort to set up 41 zones in the distribution network.

Kitakyushu supported to use equipment and expertise in setting up *Zone-Monitoring System*. 
Monitoring flow data of the distribution network

→ Effective information for leakage detection.

Decreasing of NRW → Securing financial sustainability

( Water tariff unchanged since 2001 !!)

→ Helping to the most vulnerable people.
Duration: 2003-2006

Input

- Total Numbers of Trainees: 514 Trainees Ministry/PPWSA/Provincial Waterworks
- Chief Advisor from JICA
- 15 Experts from Kitakyushu (69.5 Man-Months) → 21 PPWSA Counterparts
- 3 Experts from Yokohama (7.5 Man-Months) → 6 PPWSA Counterparts
- Training course in Japan on 3 PPWSA Counterparts
- Financial Supporting by JICA

Outcome

- Capacity of O&M of counterparts was improved.
- Standard Operation Procedure on operation and maintenance of water treatment plant and water distribution network, securing the sustainability of supply of water for the city.
  - Securing *drinkable water from Tap* to million of people.
  - Effective and efficient operation, keeping the *cost of water low*. 
Inputs

- 31 Kitakyushu experts and 18 PPWSA experts → 131 trainees from 8 provincial waterworks/ 9 trainees from Ministry
- Financial Support from JICA

Outcome

- Capacity of the operation and maintenance of 131 staff from 8 provincial waterworks have been improved.
- 8 provincial waterworks can provide reliable water in 24 hours in a day.
- Helping the sustainable growth in financial aspects for enabling the future investment to expanding supply network.
Effect from Drinkable tap water

* The spread of drinkable tap water decrease the waterborne diseases.
* Children will be free from heavy duty to carry water.
* People don’t need boil water.

→ 35t-CO2/Year Decreasing
ありがとうございました！

Thank you!