Input & Outcome of the Corporation

Phnom Penh Water Supply Authority with Waterworks of Kitakyushu City

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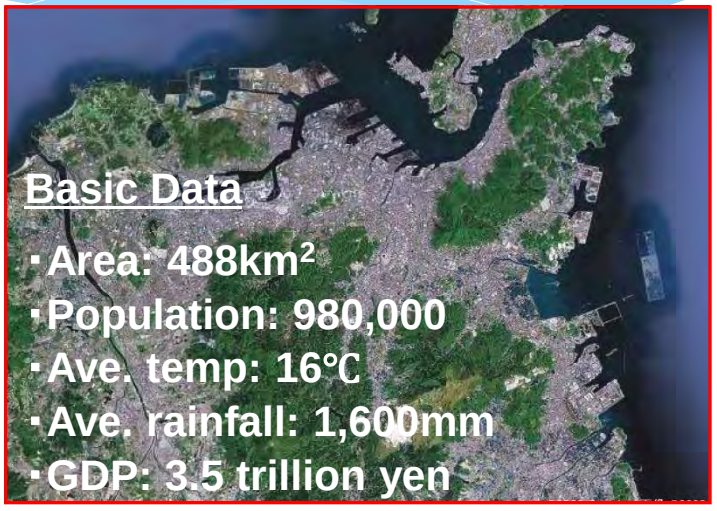
City of Kitakyushu

- 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



History of Kitakyushu

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

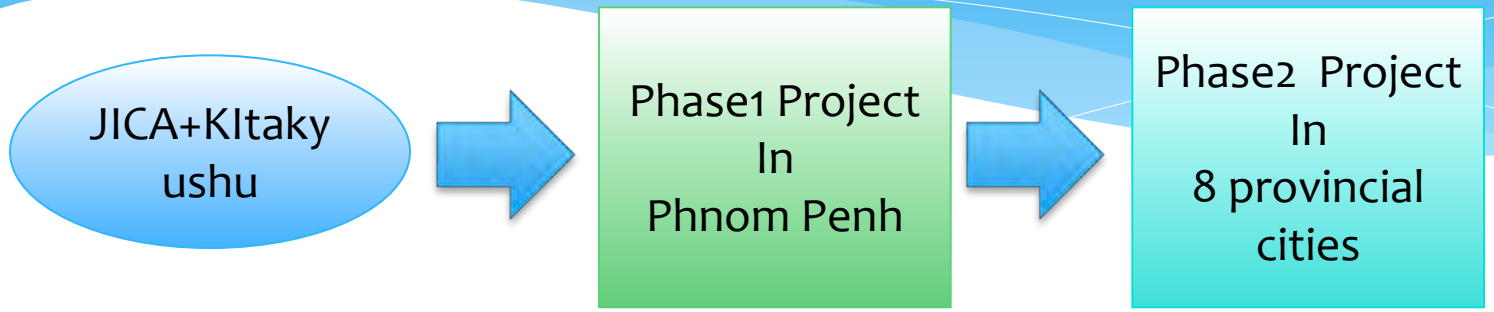
Waterworks Bureau

- 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

Cooperation

- 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



Input
Huge effort from PPWSA
Experts from Japan

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

Input
Rehabilitation by JICA
Experts from PPWSA/ Japan

Outcome
*NRW Reduction
→
*Reliable Tap Water
→Peoples Life
*Skilled staffs
→ Stable operation of WTP

Reduction of No Revenue Water

- 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***

Outcome from NRW Reduction

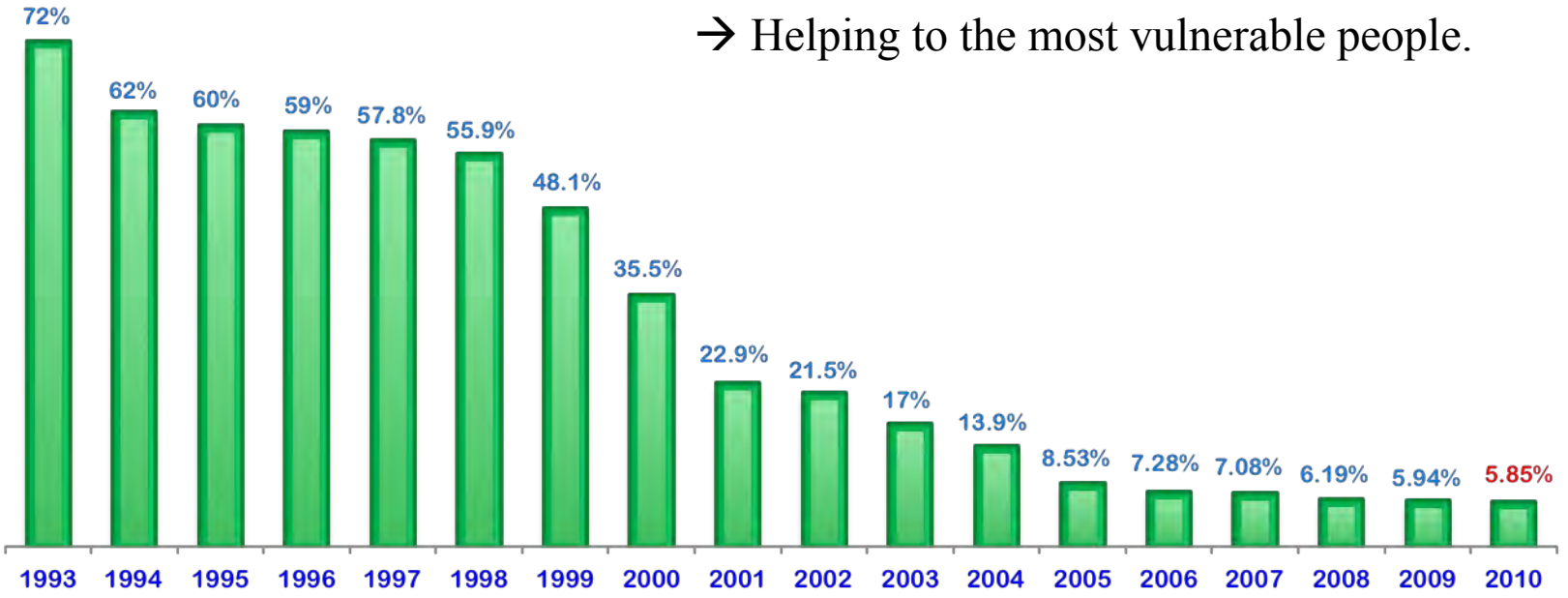
- Monitoring flow data of the distribution network

  → Effective information for leakage detection.

- Decreasing of NRW → Securing financial sustainability

  (Water tariff unchanged since 2001 !!)

  → Helping to the most vulnerable people.



Input and Outcome
Capacity Building Phase 1

- 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***.

Input and Outcome

Capacity Building Phase 2

- 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 24hours 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-CO_2/Year Decreasing

Sohm Ohkun !

ありがとうございました！

Thank you!