KITAKYUSHU OVERSEAS WATER BUSINESS ASSOCIATION

Driving opportunities for water business ventures overseas through public-private collaboration

Water and sewerage business

KOWBA

Public sector & Proven capabilities

City of Kitakyushu

- Comprehensive policy planning, total business management and operation
- Strong relationship of trust with differentcountries built on a solid foundation of international cooperation
- Substantial linkages with national governments and related organizations

Private sector & Proven capabilities

KOWBA member companies

- Top-of-the-line products and services to meet any need
- Superior quality products and effective technologies
- Extensive lineup of technologies
 (consulting, design, civil engineering, plant construction, electronics, instrumentation systems, other)



Location & Out Line, City of Kitakyushu

- Western edge of Japanese island → Asian Gateway
- Industrial cluster & technical city → Steel, Chemical, Machinery, Ceramic, IC, etc...
- Surrounded rich nature → Sea coast (210km), Forest (40%)









Fundamental Data (Approx)









- Area: 488km²
- Population: 970,000
- Average Temp: 16°C
- Annual rain fall: 1,600mm
- GDP: 3,400 billion YEN

Beginning of industrial modernization, City of Kitakyushu

◆ First city in Japan (Steel Manufacturing Plant in 1901)

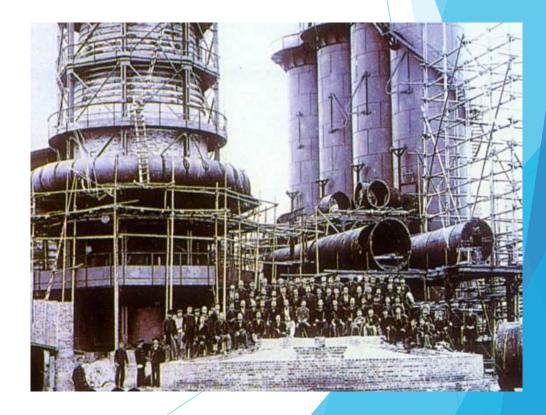


<u>Developed as core heavy industrial city (Steel & Chemical)</u>

- Population Concentration
- Company Concentration

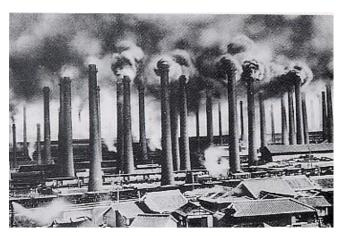


Extend Japanese high economical growth



Industrial Development and Pollutions (1950's ~)

◆ Many chimney and worst falling dust in Japan (108t/day/km²)





◆ Dead bay "Doukai bay". No creature even coliform bacilli (DO:0.6mg/ℓ、COD:48.4mg/ℓ)





Melted screw

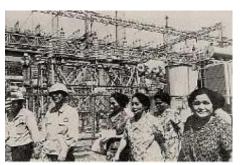
◆ Muddy black ditch river "Murasaki river (BOD:58mg/ℓ)





Efforts for antipollution mesure

With the activities of the women's society in City of Kitakyushu, <u>citizen</u>, <u>company</u>, <u>administration</u> effort for antipollution measure together



Company site visit by citizen



Filmmaking by citizen



Class by university professor to citizen

Citizen

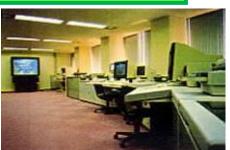
Partnership

Administration

Company



Development of sewerage



Enhancement for regulation and monitoring



<u>Conclusion on</u> antipollution agreement

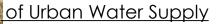


<u>Development on</u> cleaner production

Environmental improvement & Urban development











Development of Urban Sewerage



Urban Development with green

Living environment is improving, by development of urban water supply, sewerage system, and road and city planning with industry and living area division.

<u>Urban Development Project: ZERO carbon town "BON-JONO"</u>



- □Carbon ZERO: Low carbonization
- ☐ Elderly and child support: Security & Community
- Sustainable Town
 Management: Town
 Management Organization
 (TMO)

International cooperation

We cooperate to other country by lifeline facilities development and low carbonization technology for sustainable urban development.

Capacity Building Project on Urban Water Supply

◆ Urban Water Supply

□ Cambodia: From 1999 – Now

☐ China: 2001 - 2011

□ Vietnam: 2009 – Now

■ Myanmar: 2010 – Now

◆ Urban Sewerage System

□ Cambodia: 2014 – Now

☐ China: 2011 - Now

□ Vietnam: 2010 - Now

□ Indonesia: 2013 – Now



Sewerage maintenance & management training in Japan

◆ Low Carbonization Technology

☐ Cambodia: Phnom Penh

■ Myanmar: Mandalay

■Thai: Chiangmai city

■ Vietnam: Hai Phong





Water and Sewer Bureau City of Kitakyushu



- Water Supply: established in 1911
- Sewerage : established in 1918



- ▶ Autonomous Public Corporation
- Number of Staff: 500 (Engineer: 400)

Public Sector

Kitakyushu City

- More than 100 years experience
- Long years overseas experience
- Trust, Sustainability



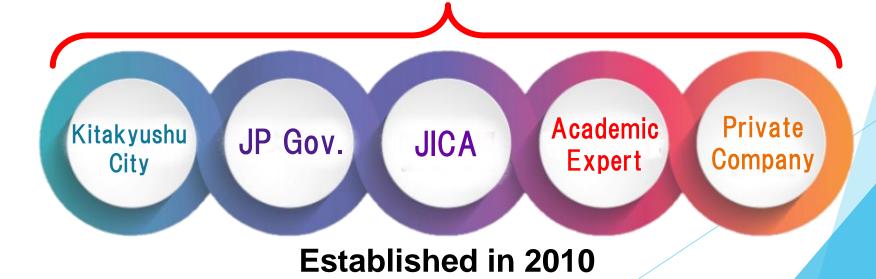
Private Company

- Products & Service meet needs
- Advanced technology & quality
- Speedy, Creative, Finance

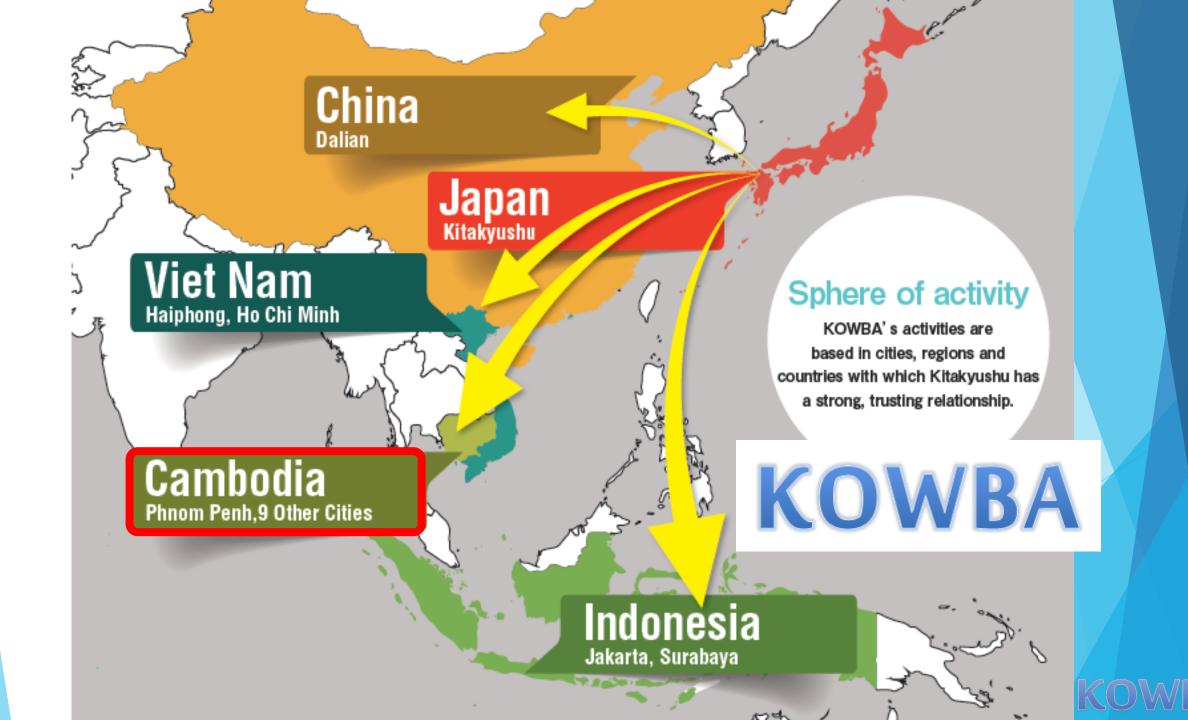


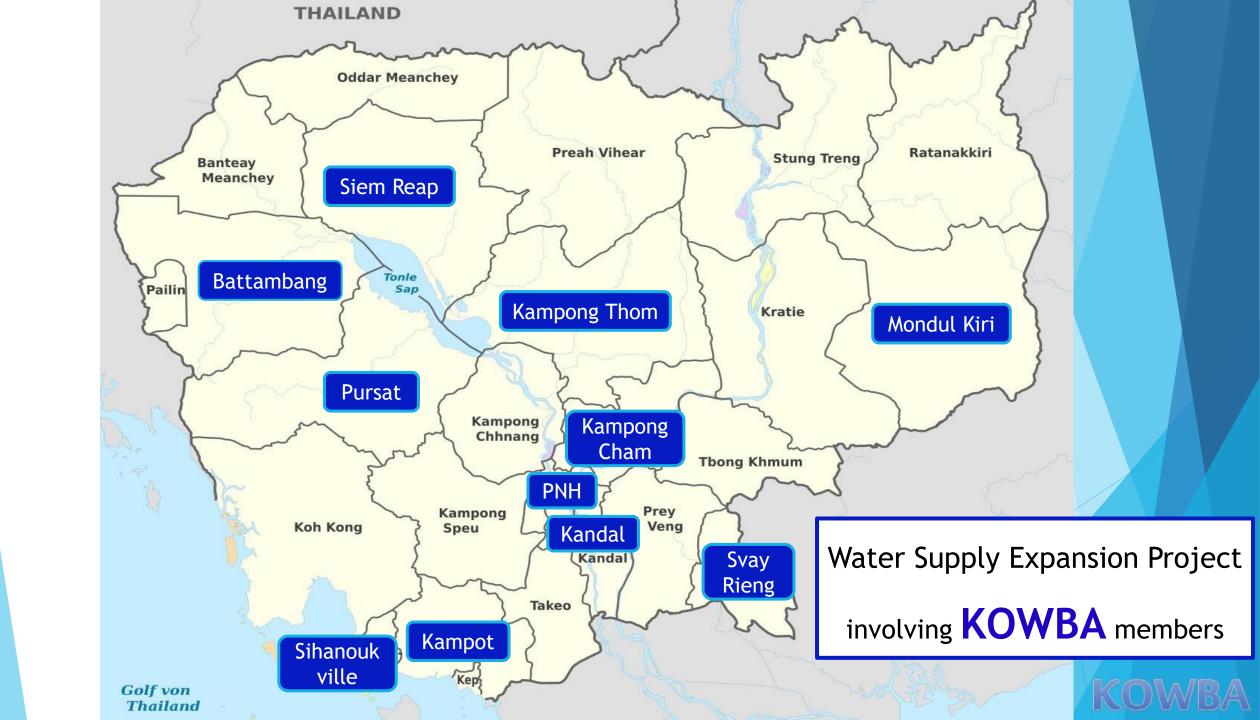
KOWBA

Kitakyushu Overseas Water Business Association

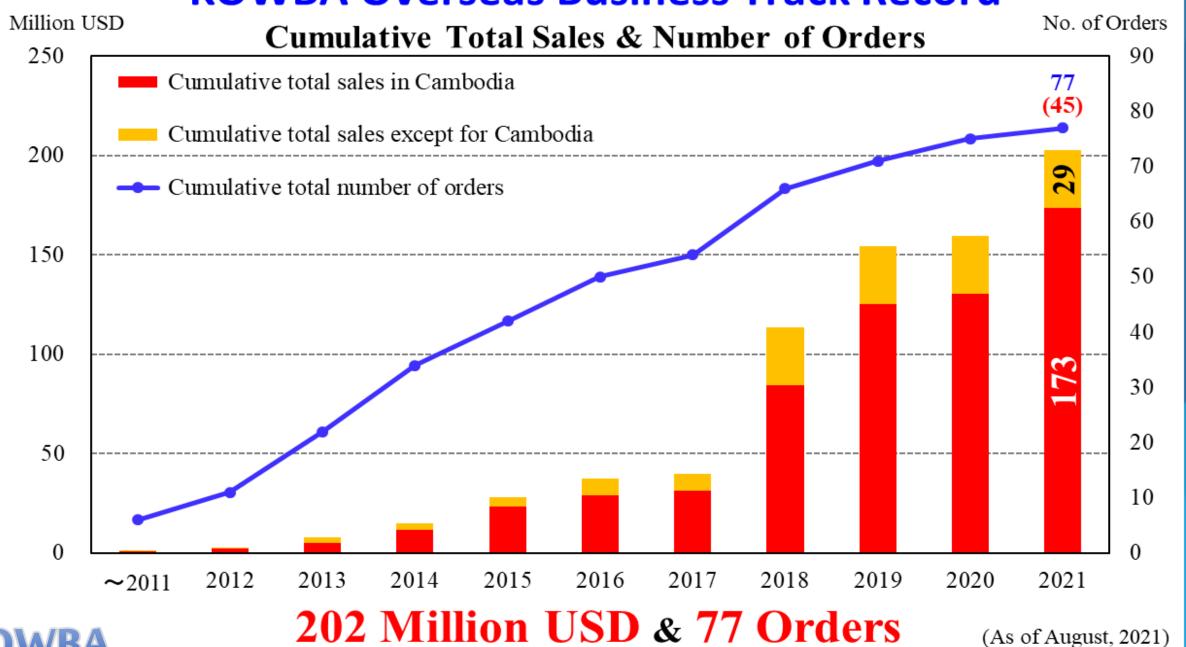








KOWBA Overseas Business Track Record



MOU with other organizations

- ► KOWBA (Establish 2010)
 - Phnom Penh Water Supply Authority (Jul 2015)
 - Ministry of Industry, Science, Technology & Innovation (Jan 2016, Extended on Jan 2021)
 - Cambodian Water Supply Association (Jan 2021) "Cooperation on Private Water Supply Development"
 - → CWA delegation and training in Japan (Jan 2023)



Hitachi Zosen

- > Fiber Filtration System
 - > For sedimentation
 - > For rapid filter



GEO

GEOCRAFT

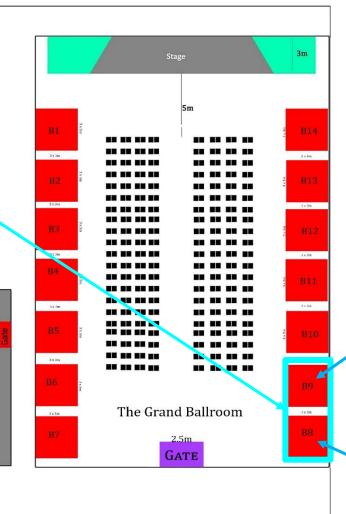
- > AQUA Crew
 - > Asset management by GIS
 - Real Model Hydraulic Calculation System

KOWBA



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Gate

Pkar Chhuk Room

NaKri Room

the sameple Booth

3 x 3 m

WC

Hitachi Zosen

GEOCRAFT

Thank you for your kind attention & consideration

