

# 1. INTERNATIONAL COOPERATION BY JAPANESE WATER SUPPLY UTILITIES

This report presents examples of international cooperation by following five water supply utilities in Japan.<sup>※1</sup>

- Water and Sewer Bureau of the City of Kitakyushu
- Yokohama City Waterworks Bureau
- Saitama City Waterworks Bureau
- Chiba Prefectural Public Enterprises Bureau
- Bureau of Waterworks Tokyo Metropolitan Government

## 1.1 OVERVIEW OF INTERNATIONAL COOPERATION BY JAPANESE WATER UTILITIES

Name of utility	Water and Sewer Bureau of the City of Kitakyushu ( <b>WSBK</b> )										
Purpose	Utilize the water supply and sewerage technology owned by Kitakyushu City and help mitigate related challenges in foreign countries and stimulate local economies through water businesses and other activities.										
Activities	Since 1990, the Water and Sewer Bureau of the City of Kitakyushu ( <b>WSBK</b> ) has shared technical expertise and experiences with Asian countries regarding water treatment, water quality management, NRW reduction, and water service management. In Cambodia and Haiphong City of Vietnam, for example, WSBK has helped human resources development by training local utility staff. The utility has also encouraged water business in these countries by utilizing the friendly relationship and local trust built through their various activities.										
Primary projects	<b>Cambodia</b> <table><tr><td>1999-2002</td><td>Dispatch of an expert and the Japan International Cooperation Agency (<b>JICA</b>) Partnership Program for the Phnom Penh Water Supply Authority</td></tr><tr><td>2003-2006</td><td>Capacity Building for Water Supply System in Cambodia</td></tr><tr><td>2007-2012</td><td>Capacity Building for Water Supply System in Cambodia - Phase 2</td></tr><tr><td>2012-2017</td><td>Capacity Building for Water Supply System in Cambodia - Phase 3</td></tr><tr><td>2013-2015</td><td>Project for Capacity Improvement of Water Supply Facility Management in Siem Reap</td></tr></table>	1999-2002	Dispatch of an expert and the Japan International Cooperation Agency ( <b>JICA</b> ) Partnership Program for the Phnom Penh Water Supply Authority	2003-2006	Capacity Building for Water Supply System in Cambodia	2007-2012	Capacity Building for Water Supply System in Cambodia - Phase 2	2012-2017	Capacity Building for Water Supply System in Cambodia - Phase 3	2013-2015	Project for Capacity Improvement of Water Supply Facility Management in Siem Reap
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<sup>※1</sup> All the information in this report were compiled by March 2017.

	<b>Vietnam</b>	
	2001-2003	Project for Water Sector Training Center in the Southern Part of Vietnam
	2010-2012	Improvement Program for Water Treatment Method against Organic Substances in HaiPhong
	2013-2015	Improvement of Haiphong Water's Capacity of Distribution Network Management
	<b>Myanmar</b>	
	2013-2016	Capacity Improvement of Water Treatment Plant Operation in Mandalay
	<b>Indonesia</b>	
	1991-1997	Project for Water Supply and Environmental Sanitation Training Center in Indonesia
	<b>China</b>	
	2001-2003	Water Leakage Reduction in Dairen City
<b>Primary Recipient Utilities</b>		
	Name of utility	Haiphong Water Joint Stock Company
		Case No. 1
	Name of utility	8 Provincial Cities in Cambodia
		Case No. 4

Name of utility	Yokohama City Waterworks Bureau (YWWB)
Purpose	<ul style="list-style-type: none"> <li>• <b>Mission as a public enterprise</b> Placing “Support to other water utilities both domestically and globally” as one of the core activities, YWWB is promoting it through the public-private collaboration.</li> <li>• <b>Our Human Resource Development</b> YWWB expects its employees to develop their own skills by working in a challenging environment in developing countries.</li> <li>• <b>Municipal Policy</b> The international activities of the Yokohama City Waterworks Bureau (YWWB) are conducted in accordance with a policy of Yokohama City, which is to contribute to a solution of various global issues and challenges, including access to water supply in developing countries.</li> </ul>
Activities	<p>Since the first expert dispatch to Afghanistan in 1973, YWWB has been working on various international activities including trainee acceptance and expert dispatches by its own efforts or through the collaboration with other agencies such as the Japan International Cooperation Agency (JICA). In addition, aiming to solve water-related challenges abroad, YWWB cooperates with Yokohama Water Business Association* and Yokohama Water Company founded by YWWB.</p> <p>*Network of local companies, established in 2011, to share information and carry out promotion for water-related overseas businesses in both water supply and sewage sectors through the public-private partnership. By 2017, it is registered by 165 local companies.</p>
Primary projects	<p>1973- : Started staff dispatch as an expert and a member of research group. By 2017, YWWB has dispatched more than 400 staffs to over 30 countries.</p> <p><u>Major destination of dispatches:</u> Vietnam (Thua Thien Hue Water Supply Joint Stock Company etc.), Indonesia (Tirtanadi Medan Regional Water Supply Company etc.), Thailand (Thai Metropolitan Waterworks Authority, Thai Provincial Waterworks Authority) etc.</p> <p>1987- : Started own trainee acceptance program (Thai Metropolitan Waterworks Authority, Thai Provincial Waterworks Authority, Department of Public Works, Indonesia, Tirtanadi Medan Regional Water Supply Company, Shanghai Water Authority, etc.)</p> <p>By 2017, YWWB has accepted more than 3,700 trainees from over 130 countries and regions</p> <p><b>&lt;The current target countries of cooperation&gt;</b> <b>Vietnam</b> 2003 – 2006 JICA Partnership Program: “Improvement of Water Utility</p>

	Management” in Hue City and Ho Chi Minh City	
	2007 – 2009	JICA Technical Cooperation: “ Human Resources Development for Water sector in the middle region of Vietnam”
	2009-	Activities based on “Memorandum of Understanding between YWWB and Vietnamese water companies”
	2010 – 2013	JICA Technical Cooperation: “Capacity Development for Urban Water Supply Utilities in the Central Region”
	2013 – 2016	JICA Partnership Program: ”Vietnam-Yokohama Safety Water Supply Management Project”
	2017 –	Bilateral activities based on “Memorandum of Understanding Between Yokohama Waterworks Bureau and Thua Thien Hue Water Supply Joint Stock Company”
	<b>Laos</b>	
	2012 – 2017	JICA Technical Cooperation: “Capacity Development Project for Improvement of Management Ability of Water Supply Authorities”
	<b>African region</b>	
2008 –	Accept the trainees of JICA Knowledge Co-creation Program “African Region Urban Waterworks Engineering” (Conducted in collaboration with Yokohama Water Company)	
2013 –	Staff dispatches by JICA volunteer program (17 YWWB staffs were dispatched by 2017.) <u>Destination of dispatches:</u> 2013 : Zanzibar Water Corporation (Tanzania), 2014 – : Blantyre Water Board (Malawi).	
Primary Recipient Utilities		
Name of utility	Thua Thien Hue Water Supply Joint Stock Company	Case No. 2

Name of utility		Saitama City Waterworks Bureau (SCWB)																	
Purpose	By engaging in a wide range of water supply expansion projects in other countries, the Saitama City Waterworks Bureau (SCWB) expects its employees to have broader perspectives, develop awareness of continuous service improvement, and enhance their communication skills in challenging environments.																		
Activities	<p>SCWB has provided technical assistance to Laos for more than 20 years. The first technical assistance was provided in 1992 when the utility participated in a study organized by the Japan International Corporation of Welfare Service (JICWELS), to make concrete plans for providing such assistance.</p> <p>SCWB’s involvement in Laos has been primarily made through the technical cooperation projects of the Japan International Cooperation Agency (JICA). But the utility has also strengthened its relation with Laos in their own way, by hosting international seminars in Vientiane Capital and Saitama City, as well as by developing staff exchange programs with the utility of Vientiane Capital.</p> <p>Owing to its strong ties with Laos, SCWB has also played an important role in connecting various Japanese organizations to relevant authorities in Laos for related cooperation programs as well as in supporting their activities.</p>																		
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Primary Recipient Utilities																			
Name of utility	Vientiane Capital Water Supply State Enterprise		Case No. 3																

Name of utility	Chiba Prefectural Public Enterprises Bureau ( <b>CPPEB</b> )	
Purpose	At the request of the Japan International Cooperation Agency ( <b>JICA</b> ), the Chiba Prefectural Public Enterprises Bureau ( <b>CPPEB</b> ) has sent its employees abroad for technical cooperation, utilizing its expertise and experiences to help water supply service in another country. The utility has also hosted training programs in Japan for visiting foreign water professionals.	
Activities	Engineers of CPPEB have worked in East Timor since 2012 to help improve the country’s water supply. Owing to this cooperation, residents in portions of the capital Dili now have 24-hour access to water supply.	
Primary projects	<b>Timor Lest</b> 2012 –     Send employees to Timor Lest	
Primary Recipient Utilities		
Name of utility	National Directorate for Water Services, General Directorate for Water and Sanitation, Ministry of Development and Institutional Reform in Timor Leste	Case No.5

Name of utility	Bureau of Waterworks Tokyo Metropolitan Government( <b>BWTMG</b> )	
Purpose	(Details in each case)	
Activities	Through tours of water supply facilities in Tokyo and technical training in Japan and on-site, BWTMG have provided technical cooperation for measures against non-revenue water. As a result, in some areas of the Mayangon district of Yangon City, Myanmar, the non-revenue water rate has been reduced from about 77% to about 32%, and 24-hour water supply has been achieved. In Myanmar, a project for water supply facility maintenance is scheduled to be implemented from 2016.	
Primary projects	<b>Malaysia</b> 2010 Technical cooperation consisted of water facility tours and technical training conducted in Tokyo 2011-13 JICA grass-root technical cooperation (non-revenue water reduction) 2012 The Director General of the Ministry of Energy, Green Technology and Water (KeTTHA)'s Waterworks Bureau requested the Director General of the Bureau of Waterworks Tokyo Metropolitan Government (BWTMG) to assist in their non-revenue water reduction <b>Myanmar</b> 2012, 2014 HIDA training in Japan 2013 Signed a Memorandum of Understanding for technical cooperation 2013 Held a seminar 2014 Made a proposal for non-revenue water project 2014 Signed a contract for the non-revenue water project (grass-root	

	gratuitous) 2016 Concluded a contract for a non-revenue water project (grant aid with project management right type)	
Primary Recipient Utilities		
Name of utility	Ministry of Energy, Green Technology and Water in Malaysia (KeTTHA: Kementerian Tenaga, Teknologi Hijau dan Air Malaysia), Penang Water (PBAPP: Perbadanan Bekalan Air Pulau Pinang)	Case No. 6
Name of utility	Yangon City Development Committee in Myanmar	Case No.7

## 1.2 EXAMPLES OF INTERNATIONAL COOPERATION FOR FIVE WATER SUPPLY UTILITIES ABROAD

Table 1. List of international cooperation

Case No.	Supporting utility in Japan	Recipient utility in other countries
1	Water and Sewer Bureau of the City of Kitakyushu	Haiphong Water Joint Stock Company in Vietnam
2	Yokohama City Waterworks Bureau	Thua Thien Hue Water Supply Joint Stock Company in Vietnam
3	Saitama City Waterworks Bureau	Three major state enterprises of water supply in Laos
4	Water and Sewer Bureau of the City of Kitakyushu	Eight provincial cities in Cambodia
5	Chiba Prefectural Waterworks Bureau	National Directorate for Water Services, General Directorate for Water and Sanitation, Ministry of Development and Institutional Reform in Timor Leste
6	Bureau of Waterworks Tokyo Metropolitan Government	Ministry of Energy, Green Technology and Water In Malaysia (KeTTHA) Perbadanan Bekalan Air Pulau Pinang (PBAPP)
7	Bureau of Waterworks Tokyo Metropolitan Government	Yangon City Development Committee in Myanmar

Figure 1. Locations of recipient countries and their basics

