

Name of Organization	Waterworks Bureau, City of Sapporo
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Name of Activity	Comprehensive Engineering on Water Supply Systems : Practical Training for Water Supply System(B)
Implementation Period	5.June.2018-10.Aug.2018
Main Organizer	JICA Hokkaido, Sapporo Waterworks Bureau, HIECC
Outline and Objectives	<p>This course aims to improve the capacity for waterworks engineer to tackle their own bottlenecks to supply safe and continuous water to their people by experienced Sapporo City's experts or professional engineer.</p> <p>The participants of this course acquire practicable knowledge and techniques of waterworks engineering through lectures, site visits, discussions and consultations with experienced Japanese experts and professional engineer.</p> <p>Main programs of this training course are as follows.</p> <ul style="list-style-type: none"> • Outline of water supplies in Japan and Sapporo • Introduction to water resources and water intake • Integrated Operation of water purification plant(Control Room, back washing of filter, jar-test) • Pipeline maintenance • Countermeasure against water leakage • Pipe manufacturing plant (ductile & PE) • Network analysis of distribution pipes (EPANET) • Water demand forecasting etc.
Target (Cooperator) Countries	Morocco, Nepal, Nigeria, Sri Lanka,Sudan

Photos



Name of Organization	Waterworks Bureau, City of Sapporo
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Name of Activity	JICA Partnership Program:Water Transmission and Distribution System Improvement Project for Water Supply in Ulaanbaatar City
Implementation Period	2016-2018
Main Organizer	JICA Hokkaido, Sapporo Waterworks Bureau, HIECC
Outline and Objectives	<p>< Project Purpose > To enhance the capacity of staff in the City Government of Ulaanbaatar related to development of the water transmission and distribution improvement plan.</p> <p>< Activities ></p> <ul style="list-style-type: none"> • To review the existing water transmission and distribution system in Ulaanbaatar City works • To provide training on basics for appropriate water transmission and distribution system • To conduct field survey on water pressure and flow rate on the pipeline network in selected pilot area and to analyze the data collected from the survey so as to provide an envisioned water distribution block area • To discuss problems and countermeasures based on the data through these activities and develop a model improvement plan in the envisioned water distribution block area
Target (Cooperator) Countries	Mongol (the City Government of Ulaanbaatar, Ulaanbaatar Water Supply and Seweage Authority, Ulaanbaatar Housing and Public Utilities Authority)

Photos




Name of Organization	Bureau of Waterworks, Tokyo Metropolitan Government
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Name of Activity	JICA Technical Cooperation Projects "The Project for Improvement of Water Supply Management of YCDC"
Implementation Period	2015-2020
Main Organizer	JICA, Tokyo Waterworks, Fukuoka City Waterworks Bureau, TSS Tokyo Water Co.,Ltd, Public Utility Services Center Co.,Ltd
Outline and Objectives	In Yangon, while construction of waterworks facilities utilizing yen loans is underway, JICA is also conducting a technical cooperation project associated with a yen loan project, to strength the organizational capacity of Yangon City Development Committee in parallel with the facility construction for securing sustainable water supply service. Tokyo Waterworks and Fukuoka City's Waterworks Bureau conduct seminars and training in Yangon and Japan.
Target (Cooperator) Countries	Myanmar Yangon City Development Committee

Photos




Name of Organization	Bureau of Waterworks, Tokyo Metropolitan Government
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Name of Activity	JICA Partnership Program "NRW (Non-Revenue Water) Reduction Technology Training and Capacity Building Project in Hanoi"
Implementation Period	February 2016 - January 2019
Main Organizer	JICA, Tokyo Waterworks, TSS Tokyo Water Co.,Ltd
Outline and Objectives	<p>Due to the lack of human resources and technologies for reducing non-revenue water in Hanoi, Vietnam, we implement technical cooperation by offering technical guidance on site and in Japan and providing Japanese-made materials and equipment to improve the capacity of personnel working in the Hanoi Water Limited Company to reduce non-revenue water.</p> <p>FY2018 : Completion of the project (14 February)</p>
Target (Cooperator) Countries	Hanoi Water Limited Company (HAWACOM)

Photos



Name of Organization	Bureau of Waterworks, Tokyo Metropolitan Government
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Name of Activity	Non-revenue water reduction project in Yangon
Implementation Period	2016-2022 (scheduled)
Main Organizer	Tokyo Waterworks, TSS Tokyo Water Co.,Ltd, and etc.
Outline and Objectives	Based on the results of the non-revenue water reduction pilot project implemented in Yangon in FY 2014, we expanded the area in some parts of Yangon and implemented infrastructure development project by utilizing ODA (project cost: 1.8 billion yen). Furthermore, we plan to carry out maintenance and management projects funded separately by Yangon City from the district where infrastructure development is completed.
Target (Cooperator) Countries	Myanmar Yangon City Development Committee

Photos




Name of Organization	Bureau of Waterworks, Tokyo Metropolitan Government
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Name of Activity	JICA Partnership Program "Water Supply Control and NRW(Non-Revenue Water) Manegement Technology in Malaysia"
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Implementation Period	August 2017~ March 2020
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Main Organizer	Tokyo Waterworks, TSS Tokyo Water Co.,Ltd, and etc.
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Outline and Objectives	<p>In Labuan Island, Malaysia, which faces the high non-revenue water rate, we implement technical cooperation by offering technical guidance and providing Japanese-made materials and equipment to improve Labuan Water's personnel skill of managing the water supply control by using SCADA and reduce non-revenue water.</p> <p>FY2018 : Training in Japan (From 26 September through 4 October)</p>
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Target (Cooperator) Countries	Myanmar Yangon City Development Committee
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Photos

Name of Organization	Bureau of Waterworks, Tokyo Metropolitan Government
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Name of Activity	Asian Waterworks Utilities Network of Human Resources Development (A1-HRD)
Implementation Period	18-20 September 2018
Main Organizer	Bureau of Waterworks, Tokyo Metropolitan Government :The members host a meeting by turns.
Outline and Objectives	<p>A1-HRD is an initiative among waterworks utilities of Asian cities to contribute to the improvement of waterworks throughout Asia by exchanging information and know-how about human resources development and training.</p> <p>Main Activities: -Annual conference on HRD which includes presentation and Q&A session, sharing of ideas, open discussion and technical site visits. -Sharing ideas on HRD through Newsletters and a website.</p> <p>The 11th conference was held in Tokyo in 2018.</p>
Target (Cooperator) Countries	<p>Korea : The Office of Waterworks, Seoul Metropolitan Government K-water Academy</p> <p>Taiwan : Taiwan Water Corporation (TWC),</p> <p>Thailand : Metropolitan Waterworks Authority, Thailand (MWA)</p> <p>Japan : Bureau of Waterworks, Tokyo Metropolitan Government</p>

Photos



Name of Organization	Yokohama Waterworks Bureau, City of Yokohama
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Name of Activity	Activities based on Memorandum of Understanding between Yokohama Waterworks Bureau and Thua Thien Hue Water Supply Joint Stock Company
Implementation Period	July 2017 to December 2019
Main Organizer	Yokohama Waterworks Bureau
Outline and Objectives	<p>Based on 15 years' cooperative relationship with Thua Thien Hue Water Supply Joint Stock Company (HueWACO), Yokohama Waterworks Bureau (YWWB) concluded 2 parties' MOU with HueWACO in July, 2017. Based on this MOU, YWWB is working on technical cooperation such as the improvement of water treatment plant and the program development of training courses as well as supporting the business operation of Yokohama Water Business Association (YWBA)* members in Vietnam.</p> <p>*Association of companies established in 2011, aiming to promote the oversea business operation of water supply and sewerage. Registered by 171 companies as of March, 2019.</p> <p>1. Type of activities:</p> <p>(1) Staff dispatch (for on-site survey, discussion, technical cooperation and workshop)</p> <ul style="list-style-type: none"> - YWWB staff members were dispatched to Hue in 2018 to carry out technical cooperation in the field of water supply/distribution, water purification/quality and facility management. <p>(2) Trainee acceptance (for training, observation and discussion)</p> <ol style="list-style-type: none"> a. Two of HueWACO's management staffs visited Yokohama in March, 2018. <ul style="list-style-type: none"> - Discussed the plans of cooperation activities based on MOU, and established an action plan - Site-visit to a pipeline training facility of YWWB and training on human resource development b. YWWB accepted four of HueWACO trainees in September, 2018 and offered training about water supply/distribution and water purification/water quality. <p>(3) Business support</p> <ul style="list-style-type: none"> - YWWB, YWBA and HueWACO co-organized "Seminar on Water Business Promotion" in Hue city, Vietnam in 2017, which was participated by 165 participants from 58 organizations. In the seminar, 6 member companies of YWBA delivered presentations and exhibited their technologies. <ul style="list-style-type: none"> - Carried out business matching with YWBA member companies in the occasion of HueWACO's executive/staff visit to Japan. - HueWACO trainees visited the exhibition booth of YWBA member companies in IWA Tokyo, September, 2018. <p>2. Fields:</p> <ul style="list-style-type: none"> - Distribution pipe network development - Countermeasure for non-revenue water - Improvement of purification method - SCADA system - Data management
Target (Cooperator) Countries	Thua Thien Hue Water Supply Joint Stock Company (HueWACO), etc., Viet Nam



Technical cooperation on distribution management in a pilot area

Name of Organization	Yokohama Waterworks Bureau, City of Yokohama
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Name of Activity	JICA Knowledge Co-creation program "African Region Urban Waterworks Engineering"
Implementation Period	August 27 to September 21, 2018
Main Organizer	JICA, Yokohama Water Co.,Ltd., Yokohama Waterworks Bureau (YWWB)
Outline and Objectives	<p>After the 4th Tokyo International Conference on African Development (TICAD IV) held in Yokohama in May 2008, YWWB started the knowledge co-creation program (training) for waterworks professionals from African countries in cooperation with JICA, aiming to improve water service in Africa. By the end of 2018, YWWB implemented 12 courses and accepted 125 participants from 29 countries in Africa.</p> <p>In Africa, many countries still have problems in water supply, which are also featured in the TICAD every time. In many of the participating countries, water utilities are confronted with high NRW rate of 30 to 50% due to water leakage, illegal connection or etc..</p> <p>YWWB offers a variety of lectures not only in technical field such as water purification, water quality management, distribution management, water supply planning and O/M, but also in administrative field including tariff management, customer management, customer services and financial planning. During training, all the participants establish an action plan to solve own issues of their utilities based on what they have learned in lectures and practices, and work on it after they return to their countries.</p> <p>Contents of specific program in 2018:</p> <ul style="list-style-type: none"> - Observation of water sources and water facilities such as water purification plants and lecture of water treatment and water quality management - Introduction of activities in YWWB such as Water Safety Plan, asset management, etc. - Lecture on NRW reduction and leakage detection training in training yard - Observation of YWWB's Expansion history in Waterworks commemoration hall - Lecture on mapping system, distribution/water meter management - Observation of pipe installation site and lecture of construction management - Exchange Program with Japanese pupils (on "Water Class" at a primary school) - Management plan, meter reading, billing collection and customer service etc.
Target (Cooperator) Countries	In 2018, YWWB accepted 7 participants: Eritrea (1), Kenya (1), Malawi (2), Nigeria (1), Rwanda (1), Tanzania (1)



Training of meter accuracy check in meter workshop Participating in children education at elementary school

Name of Organization	Yokohama Waterworks Bureau, City of Yokohama
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Name of Activity	Short-term dispatch of YWWB staff to Malawi (JICA Volunteer Program)
Implementation Period	September 30 to November 10, 2018 (6 weeks)
Main Organizer	JICA, Yokohama Waterworks Bureau (YWWB)
Outline and Objectives	<p>Yokohama Waterworks Bureau dispatches its staff to Blantyre Water Board (BWB) in Malawi every year through JICA Volunteer scheme since 2014.</p> <p>During the first three years from 2014 to 2016, 9 staff members have been dispatched to BWB, and supported BWB to improve its leakage detection and billing collection. After that, in response to the BWB's strong request for the continuation of dispatch, YWWB signed a memorandum of understanding with JICA for another three-year project in April, 2017 and dispatched 4 staff members respectively in 2017 and 2018 (total 8 staff members).</p> <p>Specific Activities up to 2018:</p> <p>The volunteer team selected Chiwembe area in Blantyre city as a model area, and instructed BWB staff how to reduce non-revenue water including leakage, illegal connection, etc.. As a result, BWB could reduce NRW ratio from 69.3% to 35.8%. The team also implemented a customer satisfaction survey in the same area and held a workshop for billing staff, which enabled BWB to identify the issues related to water supply services by BWB and to improve the circumstance. Furthermore, the volunteer team worked on the development of construction management and billing collection manual, instruction of children education, preparation of an energy map, and instruction of hydraulic analysis.</p>
Target (Cooperator) Countries	Blantyre Water Board (BWB), Malawi



Instruction of children education program



Instruction of construction management

Name of Organization	Waterworks Bureau, City of Kawasaki
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Name of Activity	The Project for Improvement of Management Capacity of Water Supply Sector (MaWaSU 2)
Implementation Period	21 May,2018 - (Dispatch engineers) 14 Jan - 16 Mar, 2019 (Dispatch engineers)
Main Organizer	JICA
Outline and Objectives	This Project is purpose to "The foundation necessary for strengthening the water supply sector management system and Water Supply State Enterprise's(W SSE) capacity is formulated" to achieve Lao national goals. The term of the project is from 2018 to 2023, we dispatch long-term and short-term engineers. Besides, we concluded an agreement among JICA and 4 local governments (Saitama City, Saitama Prefecture, Yokohama City) including Kawasaki City participating in the project in order to work in close cooperation.
Target (Cooperator) Countries	Department of Water Supply (DWS), Ministry of Public Works and Transport (MPWT) of Lao PDR / DWS of MPWT, Vientiane Capital Water Supply State Enterprise (NP NL), Luang Prabang Provincial Water Supply State Enterprise (NPLB) and Khammouane Provincial Water Supply State Enterprise (NPKM) as the pilot water supply state enterprises (W SSEs), Department of Public Works and Transport (DPWT)s of Vientiane Capital, Luang Prabang, Khammouane and W SSEs and DPWTs of other provinces

Photos



Name of Organization	Chiba Prefectural Public Enterprises Bureau
Name of Activity	Dispatch experts to The Democratic Republic of Timor-Leste
Implementation Period	<p>30 April 2012-29 April 2015 (Long term technical expert dispatching) 19 May-15 June 2014(Short term technical staffs dispatching) 26 October - 4 November 2015(Short term technical staffs dispatching) 27 July 2015-26 July 2017 (Long term technical expert dispatching) 8 January - 7 February 2016(Short term technical staffs dispatching) 13 January - 5 March 2017(Short term technical staffs dispatching) 21 August 2017 - (Long term technical expert dispatching) 11 November 2017 - 11 November (Short term technical staffs dispatching) 25 February 2018 - 25 February (Short term technical staffs dispatching) 25 January 2019 - 17 February (Short term technical staffs dispatching)</p>
Main Organizer	JICA
Outline and Objectives	<ul style="list-style-type: none"> •The water sector of the Government of the Democratic Republic of Timor-Leste (DRTL) set a goal that aimed safe and abundant water supply for all by 2030. •However, the water coverage rate remained at 70% (95% in urban, 61% in rural area) in 2012 despite various supports from the Government of Japan. •For this, the water supply sector of DRTL has been in need of continual supports to improve the water supply system. •In response to JICA's request, Chiba Prefectural Public Enterprises Bureau (CPPEB) has been dispatching technical staffs to improve water supply system in DRTL. <p>(Dispatch of long term experts)</p> <ul style="list-style-type: none"> •CPPEB dispatched a technical staff to DRTL from April 2012 through April 2015, in response to request from JICA. •The technical staff improved water supply with training staffs of the water sector and finally achieved 24hours/7days water supply in some areas. •From July 2015 through July 2017,a second long term staff was dispatched. And since August 2017, a third long term staff has been dispatched and trying to expand 24hours/7days water supply areas in Dili. •Details are as follows. <ol style="list-style-type: none"> i) Technical support for operation and water quality control improvement in water purification plants. ii)Technical support for improvement in water distribution system for 24hours / 7days water supply district expansion. iii)Support for administering water service business by independent accounting. <p>(Dispatch of short term staffs)</p> <ul style="list-style-type: none"> •CPPEB has dispatched 25 technical staffs in total as short term technical staffs since 2014. •Details are as follows, <ol style="list-style-type: none"> i)Support for administration and management of the organization. ii)Technical support for the efficient water supply system and understanding of non-revenue water. iii)Technical support for water quality check and chemical doses. iv)Technical support for operation and maintenance of water supply facilities. v)Technincal support for usage of water leak detector and metal detector.

Name of Organization

Chiba Prefectural Public Enterprises Bureau

Target (Cooperator)
Countries

The Democratic Republic of Timor-Leste

Photos



Improved water supply as a result of support from JICA and our bureau



Short term technical staffs from CPPEB and trainees of DRTL

Name of Organization	Saitama City Waterworks Bureau
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Name of Activity	The Project for Improvement of Management Capacity of Water Supply Sector of Lao PDR (MaWaSU2)
Implementation Period	May 2018 ~ May 2023
Main Organizer	JICA
Outline and Objectives	<p>This project is to contribute to formulate the foundation necessary for strengthening the water supply sector management system and Waterworks operation ability of Water Supply State Enterprise(W SSE) ,and 3 pilot W SSES practice to the other W SSES in Lao toward to improve population served. We dispatch experts with Kawasaki-city, Yokohama-city, Saitama-prefecture.</p> <p>【Population served(urban area)】 FY2015(Result):64% FY2020(Target):80%</p> <p>【FY2018 Dispatch experts】 21st May 2018 ~ (Long-term expert 1staff) 14th October 2018 ~ 14th December 2018 (Short-term expert 1staff)</p>
Target (Cooperator) Countries	Laos / Department of Water Supply , Ministry of Public Works and Transport , Pilot W SSES(Vientiane Capital , Luang Prabang Provincial , Khammouane Provincial) and Department of Public Works and Transport(DPWT) , other provinces W SSE and DPWT

Photos



Name of Organization	Saitama City Waterworks Bureau
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Name of Activity	Project for Improvement of Pipeline Management and Maintenance in Water Supply State Enterprises of Lao PDR
Implementation Period	June 2018 ~ June 2021
Main Organizer	JICA
Outline and Objectives	<p>This project is to contribute through dispatch staff and trainee acceptance to support of technique for improve about pipe construction management ,pipe construction standards, pipe selection and management toward to reduce water leakage.</p> <p>[FY2018 Dispatch staff, Trainee acceptance] Dispatch staff: 4 times(9 weeks), 12 staffs Trainee acceptance:1 time(2.5 weeks), 3 trainees</p>
Target (Cooperator) Countries	Laos / Department of Water Supply , Ministry of Public Works and Transport , Vientiane Capital Water Supply State Enterprise(W SSE), Luang Prabang Provincial WSSE, Khammouane Provincial WSSE

Photos




Name of Organization	Public Enterprise Bureau, Saitama Prefectural Government
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Name of Activity	The Project for Improving Water Treatment Plant Operations and Maintenance Management of the Water Supply State Enterprises (JICA Partnership Program)
Implementation Period	January, 2016 - January, 2019
Main Organizer	The Public Enterprise Bureau, Saitama Prefectural Government
Outline and Objectives	<p>We have carried out the technical assistance to improve operation, maintenance and water quality management abilities in the water purification plants under the jurisdiction of Water Supply State Enterprises in Laos , through the dispatch of engineers and the acceptance of trainees.</p> <p>○Purpose This program aims for the sound operation of the water purification plant and supply of good quality water by improvement of technical abilities of Water Supply State Enterprises' staffs.</p> <p>○Target Water Purification Plants in Vientiane Capital, Luang Prabang and Khammouane</p> <p>○Activities Guidance for maintenance of chemical injection pump, calculation and control of the chemical injection amount, cleaning of filtration reservoir etc.</p> <p><Results in FY 2018></p> <p>1 Dispatch of Engineers First dispatch (July 7 - July 21, Luang Prabang): 4 engineers Second dispatch (September 9 - September 28, Khammouane): 4 engineers Third dispatch (November 4- November 23, Vientiane Capital): 3 engineers Project policy discussion and confirmation (June 12 - June 15, Vientiane Capital): 3 members Closing seminar (November 18- November 23, Vientiane Capital): 2 members</p> <p>2 Acceptance of Trainees Lectures and field experiences (October 15 - October 26): 4 trainees</p>
Target (Cooperator) Countries	Department of Water Supply, Ministry of Public Works and Transport, Lao PDR

Photos



Water quality management guidance in Khammouane



Closing seminar

Name of Organization	Public Enterprise Bureau, Saitama Prefectural Government
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Name of Activity	The Project for Improvement of Management Capacity of Water Supply Sector
Implementation Period	January 21- February 20, 2019
Main Organizer	JICA
Outline and Objectives	<p><Outline> JICA web page https://www.jica.go.jp/project/english/laos/023/index.html</p> <p><Cooperation contents> We are cooperating with dispatching experts of civil engineering and water quality management, and accepting trainees, based on the agreement on cooperation of the project which we signed in May 2018.</p> <p><Results in FY 2018> ○ Dispatch of expert (January 21- February 20): 1 engineer of water quality management</p>
Target (Cooperator) Countries	Laos / Department of Water Supply, Ministry of Public Works and Transport, Vientiane Capital Water Supply State Enterprise, Luang Prabang Provincial Water Supply State Enterprise, Khammouane Provincial Water Supply State Enterprise and other

Photos



Hearing in water quality inspection room



Workshop

Name of Organization	Nagoya City Waterworks and Sewerage Bureau
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Name of Activity	The JICA Training and Dialogue Programs Non-Revenue Water Management(Leakage Control) A
Implementation Period	13 September ~ 26 October 2017 (The training in Nagoya was 6 days)
Main Organizer	JICA
Outline and Objectives	<p>This program aims to Capacity Development for Non Revenue Water management of Developing countries engineers.</p> <p>The main training programs in Nagoya are as follows;</p> <ul style="list-style-type: none"> •Leakage Control in Nagoya •Water Distribution Pipelines Renewal Planning •Pipeline Design •Field Training for Joining Water Pipes
Target (Cooperator) Countries	Afghanistan, Malawi(2), Marshall Islands, Philippines, Zimbabwe

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Name of Organization	Nagoya City Waterworks and Sewerage Bureau
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Name of Activity	The JICA Training and Dialogue Programs Non-Revenue Water Management(Leakage Control) B
Implementation Period	1 November ~ 8 December 2018
Main Organizer	JICA
Outline and Objectives	<p>This program aims to Capacity Development for Non Revenue Water management of Developing countries engineers.</p> <p>The main training programs are as follows;</p> <ul style="list-style-type: none"> •Leakage Control in Nagoya •Water Distribution Planning •Water Distribution Pipelines Renewal Planning •Pipeline Design •Field Training for Joining Water Pipes •Water Meter Readings •Public Relations •Site visits (Intake, Water Purification Plant, etc.)
Target (Cooperator) Countries	Cambodia, Ethiopia, Guinea, Laos, Nigeria, Rwanda, Sri Lanka(2)

写真



Name of Organization	Nagoya City Waterworks and Sewerage Bureau
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Name of Activity	JICA Technical Cooperation Project "The Project for Enhancement of Operational Efficiency and Asset Management Capacity of Regional Support Center-Western South of NWSDB in Sri Lanka"
Implementation Period	1 September 2018~ 31 August 2021
Main Organizer	JICA
Outline and Objectives	<p>Nagoya City Waterworks and Sewerage Bureau dispatches experts and conducts training in Japan, in cooperation with JICA Technical Cooperation Project to enhance the pipelines management work in National Water Supply and Drainage Board (NWSDB) in Sri Lanka since fiscal 2018.</p> <p>The contents of implementation in fiscal 2018 of Nagoya are as follows;</p> <ul style="list-style-type: none"> •Dispatches expert (Long-term) : 1person (1 September 2018 - on going) •Dispatches expert (Short-term) : 1person (7 October - 25 November)
Target (Cooperator) Countries	National Water Supply and Drainage Board : NWSDB

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Name of Organization	Hamamatsu City Water Services Department
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Project	JICA Partnership program "Skills Support Regarding Leak Prevention Initiatives in Bandung City"
Implementation	Whole Project Term: March 2017 to July 2019
Main Organizer	Hamamatsu City Water Services Department
Outline and Objectives	<p>The conclusion of the Letter of Intent (LOI) regarding exchange in areas such as Culture and Environment in December 2014 between Hamamatsu City and Bandung City as an opportunity, we are providing technical instruction on leak prevention measures as skills support for the reduction of non-revenue water in Bandung City.</p> <p>1. Activities (FY2018):</p> <ul style="list-style-type: none"> •The 1st delegation (July 15–28, 2018) Dispatched Hamamatsu experts : 5 staff •The 2nd delegation (September 1–15, 2018) Dispatched Hamamatsu experts : 6 staff •The 1st overseas training (November 5–15, 2018) PDAM Tirtawening Kota Bandung : 7 staff <p>2. Contents :</p> <p>Creation of a special team (6 persons) for leak prevention and implementation of practical training at the pilot area in Bandung City and Japan.</p> <ul style="list-style-type: none"> ① Leak Detection Training ② Leak Repair Training ③ Making Leak Prevention Plans ④ Making a Water Supply Construction Manual
Target (Partner) Countries	Bandung City, Republic of Indonesia (PDAM Tirtawening Kota Bandung)

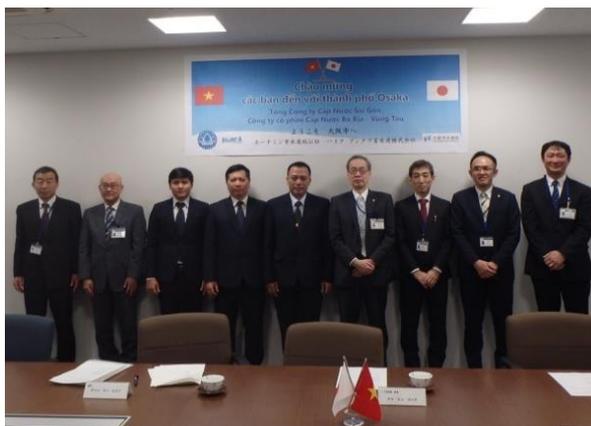
Photos




Name of Organization	Osaka Municipal Waterworks Bureau (OMWB)
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Name of Activity	Technical Exchange between SAWACO, BWACO and OMWB
Implementation Period	12th - 20th March 2019
Main Organizer	Osaka Municipal Waterworks Bureau (OMWB)
Outline and Objectives	<p>Saigon Water Corporation (SAWACO) and OMWB have mutually agreed to exchange and share technical and managerial knowledge, experiences, information for the purpose of making contribution toward the development of both waterworks and promoting their friendship, signed "Technical Partnership Agreement" on December 2009, revised it on November 2015 and December 2018.</p> <p>Based on this agreement, OMWB has accepted SAWACO's staffs annually since FY 2010.</p> <p>In this year(2019), OMWB accepted 3 participants from SAWACO and 2 participants from BWACO* (Ba Ria - Vung Tau Water Supply JSC) between 12th to 20th March 2019, and conducted lectures, site visits and discussion.</p> <p>In the technical exchange, OMWB introduced the efforts utilizing ICT, management of water supply network, water quality management etc. Issues on the SAWACO and BWACO were discussed as well, and OMWB advised solutions to solve them.</p> <p>*BWACO joined the technical exchange on referral from SAWACO.</p>
Target (Cooperator) Countries	"Vietnam (Saigon Water Corporation [SAWACO]) Vietnam (Ba Ria - Vung Tau Water Supply JSC [BWACO])"

Photo



Name of Organization	Osaka Water Supply Authority (OWSA)
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Name of Activity	MWA-OWSA Technical Exchange Program
Implementation Period	29th October to 9th November, 2018
Main Organizer	Osaka Water Supply Authority
Outline and Objectives	<p>OWSA(Osaka Water Supply Authority) has cooperated with MWA(Metropolitan Waterworks Authority) through the technical training program at the NWTTI(National Waterworks Technology Training Center) in Thailand which JICA established.</p> <p>We signed the MOU(memorandum of understanding) for further development of each waterworks on 27th November, 2012.</p> <p>As a follow-up of our exchange program in 2017,we sent four OWSA staffs to MWA in June 2018 and we understood MWA's request for the next program and problems in their management.</p> <p>We accepted four MWA staffs as trainees based on MOU 29th October to 9th November,2018 and conducted exchanges of technology under the thema of "Water Treatment & Water Supply Management" based on the follow-up.</p>
Target (Cooperator) Countries	

Photos



Name of Organization	Kyoto City Water and Sewerage Works Bureau
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Name of Activity	JICA knowledge co-creation Program
Implementation Period	26 June - 2 Aug, 2018
Main Organizer	Kyoto City, Osaka City
Outline and Objectives	<p>In response to a request from JICA, Kyoto City Waterworks Bureau had carried out training course of "Maintenance of Urban Waterworks" jointly with the Osaka City for 2 months and accepted 5 participants from overseas countries.</p> <p>We mainly organized lectures and technical visits as follows;</p> <ol style="list-style-type: none"> 1. Technical visit to Keage Purification Plant <ul style="list-style-type: none"> - Lecture about "The summary of purification facilities" 2. Lecture about "Training for maintenance checkup and calibration of continuous water quality monitoring equipment" 3. Others <ul style="list-style-type: none"> - Needs discussion, Instruction for making action plan, etc
Target (Cooperator) Countries	India, Afghanistan, Nepal, Uganda, Nigeria (5 participants)



Name of Organization	KOBE City Waterworks Bureau
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Name of Activity	JICA knowledge co-creation Program "Operation and Maintenance of Urban Water Supply System (Water Quality and Purification) (B)"
Implementation Period	26 June - 2 August 2018
Main Organizer	JICA-Kansai
Outline and Objectives	<p>This training is aiming to foster engineers who are in charge of water quality and purification. 6 participants from 6 countries visited in Kobe city in 2018. Participants made an Action Plan and work out the plan with Kobe city Waterworks bureau.</p> <p>Main programs of the training course are as follows.</p> <ul style="list-style-type: none"> • Make and Report an Action Plan • Water Treatment Method • Maintenance of Machinery and Electrical Equipment • Water Quality Management • Operation and Maintenance of Water Purification Plant • Water Safety Plan • Study Tour of Facilities (Reservoir, Water Purification Plant, Pump Station and so on)
Target (Cooperator) Countries	Sri Lanka, Rwanda, Pakistan, Tunisia, Eritrea, Benin

Photo



Name of Organization	KOBE City Waterworks Bureau
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Name of Activity	The Project for Enhancement of Operational Efficiency and Asset Management Capacity of Regional Support Center-Western South of NWSDB in Sri Lanka
Implementation Period	September 2018 ~ August 2021
Main Organizer	JICA
Outline and Objectives	<p>○Concept of the Project</p> <p>The Project is to support NWSDB to enhance operational efficiency through strengthening pipe management capacity. This will be achieved through three main activities, i.e., introduction of asset management focusing on pipelines, capacity development of leak control at the pilot site, and improvement of training implementation capacity regarding leak control.</p> <p>○Activity of the Kobe City</p> <ul style="list-style-type: none"> • Introduction of asset management of pipelines • Short-term expert dispatch <p>7 October - 20 October , 2018(Dispatch engineers)</p> <p>13 January - 26 January , 2019(Dispatch engineers)</p>
Target (Cooperator) Countries	Sri Lanka · NWSDB(National Water Supply and Drainage Board)



Name of Organization	KOBE City Waterworks Bureau
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Name of Activity	Collaboration Program with the Private Sector for Disseminating Japanese Technologies for Wide Area Water Network Monitoring System in Sri Lanka
Implementation Period	May, 2019 - June, 2020
Main Organizer	JICA
Outline and Objectives	<p>○Purpose This program aims to help National Water Supply and Drainage Board (NWSDB) staffs to understand the necessity and effectiveness of wide area monitoring system for the operation and management of water supply network, by enhancing the technologies of the monitoring system for wide area water supply network and by conducting the site tour of actual system being utilized.</p> <p>○Activity in 2018 25 March - 30 March , 2018 (Dispatch engineers) : 1st kick off and workshop</p>
Target (Cooperator) Countries	Sri Lanka・NWSDB(National Water Supply and Drainage Board)

Photo



Name of Organization	The City of Hiroshima Waterworks Bureau
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Name of Activity	JICA Operation and Maintenance of Urban Water Supply Systems Course B
Implementation Period	July 2 to August 3, 2018
Main Organizer	JICA
Outline and Objectives	<p>The City of Hiroshima accepts technicians in the field of waterworks from developing countries so that they can acquire practical knowledge and skills about Hiroshima's water supply and distribution. The goal of this program is for the trainees to contribute to the development of waterworks services in their countries. The City has accepted 58 trainees since receiving JICA Chugoku's request in 2013.</p> <p>Main Programs of Training Course:</p> <ul style="list-style-type: none"> •Hydrologic Accounting •Operation and Maintenance of Purification Plants •Water Quality Management •Leak Prevention Training •Repair of Burst Water Pipes
Target (Cooperator) Countries	Afghanistan, Bosnia and Herzegovina, Cote D'ivoire, Eritrea, Guinea, Indonesia, Liberia, Malawi, Mozambique, Sri Lanka [ten participants in total]

Photos



Name of Organization	Shimonoseki City Waterworks & Sewerage Bureau
Name of Activity	2018 Staff Exchange Program with Qingdao Water Group Co., Ltd.
Implementation Period	10 October - 24 October 2018
Main Organizer	Shimonoseki City Waterworks & Sewerage Bureau・Qingdao Water Group Co., Ltd.
Outline and Objectives	<p>The cities of Shimonoseki and Qingdao have promoted friendly exchanges in a variety of fields since becoming friendship cities in 1979.</p> <p>As part of these activities, Shimonoseki City Waterworks & Sewerage Bureau and Qingdao Water Group CO., Ltd dispatch the staffs mutually from 2000.</p> <p>This staff exchange program is aiming to deepen friendly relations and improve water and sewerage technology in both cities.</p>
Target (Cooperator) Countries	China・Qingdao Water Group Co., Ltd.

Name of Organization	Fukuoka City Waterworks Bureau
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Name of Activity	JICA Partnership Program: Project to improve water supply services in the Nadi/Lautoka region, Fiji
Implementation Period	January 2018–January 2021
Main Organizer	JICA
Outline and Objectives	<p>■ Summary/Purpose</p> <p>In light of the accomplishments of the first project of the JICA Partnership Program, which concluded in July 2017, a second project was launched to assist the WAF in improving water supply services in the Nadi/Lautoka region. This included water conservation awareness activities for service users, as well as a bolstering of the WAF engineers' capabilities regarding water supply control and leakage prevention. This aims to support the WAF in achieving 24-hour water supply service in the region.</p> <p>■ Activities</p> <ul style="list-style-type: none"> - Dispatch Fukuoka City officer(s) (three times a year) - Accept officer(s) from the counterpart organization (once a year) - Supply materials and equipment for waterworks <p>For the purpose of improving the areas with insufficient water supplies, Fukuoka City performed surveys with local staff on the distribution pipe flow rate and water level of the reservoir in Nadi Area in FY2018. In addition, we have conducted a water usage survey and held water conservation campaign in order to promote water conservation awareness of water users.</p>
Target (Cooperator) Countries	Water Authority of Fiji

photos



Name of Organization	Fukuoka City Waterworks Bureau
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Name of Activity	JICA Expert Yangon City Water Administration & Supply Advisor
Implementation Period	December 2018–December 2020
Main Organizer	JICA
Outline and Objectives	<p>■ Summary/Purpose</p> <p>Yangon City is the largest city in Myanmar with a population of over 5.6 Million. Along with its further economical development and population increase, the demand for water has increased. Improving the water service is an urgent matter for the city to attend to.</p> <p>Due to this, the Myanmar government requested the Japanese government to dispatch experts to advise and support the water administration. Based on JICA's request, Fukuoka City Government dispatched its own officers to Yangon City to offer advice on water administration and to work on maintaining and renovating the water distribution pipe system.</p> <p>■ Activities</p> <p>1. Maintenance/renovation of water distribution pipe system:</p> <ol style="list-style-type: none"> 1) To analyze the current water distribution pipe system and identify any issues 2) To advise on maintenance & renovation planning, designing, construction management of the water distribution pipe system 3) To advise on appropriate maintenance management of water distribution pipe system 4) To make the Water Vision a reality and apply development policies & plans <p>2. Waterworks administration</p> <ol style="list-style-type: none"> 1) To analyze current policies and planning related to the YCDC waterworks management at the national, state & city levels 2) To advise the YCDC in order to improve policy, plan & system at the national, state & city levels 3) To advise/support concerned Ministries/Departments 4) To support in future Japanese assistance programs 5) To share the experience and knowledge of waterworks projects with other municipalities and the Township Development Committee, providing necessary advice
Target (Cooperator) Countries	Yangon City Development Committee, Myanmar

photos



Name of Organization	Fukuoka City Waterworks Bureau
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Name of Activity	JICA Group and Region Focused Training: Non-Revenue Water (NRW) Management (Leakage Control)
Implementation Period	July 25–August 22, 2018
Main Organizer	JICA
Outline and Objectives	<p>■ Summary/Purpose</p> <p>Less developed countries tend to have a higher rate of NRW due to a shortage of waterwork engineers. By accepting their officers as JICA Group and Region Focused trainees, and transferring Fukuoka City's expertise and techniques on waterworks, Fukuoka City contributes to improve those countries' water supply environment. In addition, this aims to develop the capability of the engineers in Fukuoka City through international cooperation activities and to improve their technical standards by accumulating activities.</p> <p>■ Activities</p> <ul style="list-style-type: none"> • Lectures: Fukuoka City Waterworks management, NRW reduction measures, pipe planning and maintenance, water meter controls, etc. • Site visits: dams, waterworks facilities, areas for laying distribution pipes, etc. • Support: creating action plans
Target (Cooperator) Countries	Myanmar (1 person), Fiji (1 person), Nepal (1 person), Tanzania (1 person)

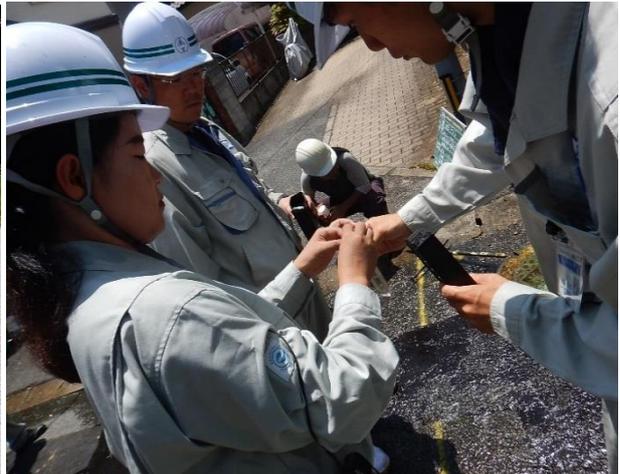
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Name of Organization	Fukuoka City Waterworks Bureau
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Name of Activity	Council of Local Authorities for International Relations (CLAIR): Local Government Officials Training Program (LGOTP)
Implementation Period	June–November 2018
Main Organizer	Council of Local Authorities for International Relations (CLAIR)
Outline and Objectives	<p>■ Summary/Purpose Through LGOTPs, Fukuoka City accepted YCDC engineers as trainees and transferred techniques and expertise to improve management and maintenance of the waterworks system of the YCDC. In addition, this also aims to strengthen relations between Fukuoka City and the YCDC.</p> <p>■ Activities Training programs as follows:</p> <ul style="list-style-type: none"> • Lectures: overall management of waterworks and sewage in Fukuoka City • Site visits: dams, water intake facilities, water purification plants, distribution pipe installation sites, etc. • Practical training: operations and maintenance training at water purification plants and pumping facilities, water control activities, welding of water distribution pipes at Fukuoka City's training facility, etc. • Support: creating action plans <p>Accepted two waterworks engineers from Yangon City Development Committee and provided training in FY2018</p>
Target (Cooperator) Countries	Yangon City Development Committee, Myanmar

photos



Name of Organization	Fukuoka City Waterworks Bureau
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Name of Activity	JICA Technical Cooperation Project: Project for Improvement of Water Supply Management of YCDC
Implementation Period	2015 - 2020
Main Organizer	JICA, TEC International, TSS Tokyo Water, Public Utility Services Center, Fukuoka City Waterworks Bureau, Tokyo Metropolitan Government Bureau of Waterworks
Outline and Objectives	<p>■ Summary/Purpose</p> <p>In Yangon, while construction of waterworks facilities utilizing yen loans is underway, JICA is also conducting a technical cooperation project associated with yen loan ventures to strengthen the organizational capacity of the YCDC in parallel with facility construction for securing sustainable water supply service. The Tokyo Metropolitan Government's Bureau of Waterworks and the Fukuoka City Government's Waterworks Bureau participated as supporting members and provided technical advice throughout the project as water suppliers.</p> <p>■ Activities</p> <p>The Tokyo Metropolitan Government's Bureau of Waterworks and Fukuoka City Government's Waterworks Bureau conduct regular joint seminars and training in both Yangon and Japan.</p> <p>In FY2018, Fukuoka City participated in video meetings and provided technical advice.</p>
Target (Cooperator) Countries	Yangon City Development Committee, Myanmar

photos



Name of Organization	Okinawa Prefecture Enterprise Bureau
Name of Activity	Water Conservation Management in Island Areas
Implementation Period	29th October to 30th November, 2018
Main Organizer	JICA
Outline and Objectives	<p>Acceptance of trainees from (foreign) water utilities, in cooperation between JICA Okinawa and Okinawa Water Supply Agency, aiming at international exchanges and international cooperation through technical transfer regarding effective water system in Pacific islands area.</p> <p>(This is the 9th year and 93 trainees have participated in this training so far.)</p>
Target (Cooperator) Countries	Samoa(1),Vanuatu(1),Solomon Island(1),Micronesia(1),Palau(1)

Name of Organization	Okinawa Prefecture Enterprise Bureau
Name of Activity	Capacity Enhancement Project for Samoa Water Authority in Cooperation with Okinawa
Implementation Period	2014FY~2019FY
Main Organizer	JICA
Outline and Objectives	<p>The project have been providing Samoa Water Authority (SWA) with guidance on proper management technologies regarding Non-Revenue Water, water quality and water purification plant in Apia, capital city of Samoa. For the purpose of contributing to stable water supply and security in Apia, experts are dispatched from water authorities under Okinawa Prefecture.</p>
Target (Cooperator) Countries	Samoa Water Authority

Name of Organization	Japan Water Works Association
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Name of Activity	JICA Knowledge Co-Creation Program "Comprehensive Engineering on Water Supply Systems:Basic Planning and Design for Water Supply System (A)"
Implementation Period	17 May- 12 July, 2018
Main Organizer	JICA
Outline and Objectives	<p>This training is aiming to foster development of engineers who will take on leading roles in managing waterworks facilities and target of the training is mid-level waterworks engineers from developing countries.</p> <p>The program features a number of lectures, observation tours and exercises regarding comprehensive water supply technologies for about 2 months. The training has a long history and so far a total of 618 trainees from more than 100 countries and regions have participated.</p> <p>Main programs of the training course are as follows.</p> <ul style="list-style-type: none"> •Water intake, reservoir, distribution facilities •Jar test (Optimization of coaguration) •Leak prevention •Exercise on basic planning of water supply systems •Hydraulic Calculation of Water Treatment Plant •Water Safety Plan •Visit to Polyethylene Pipe Manufacturing Factory •Sound Management of Urban Water Operator etc. <p>【Reference】 http://www.jwwa.or.jp/english/en_04_01.html</p>
Target (Cooperator) Countries	CAMBODIA, ERITREA, MALAWI, MOROCCO, MYANMAR(2), RWANDA, SOUTH SUDAN(TOTAL 8 participants)

photos

