Name of Organization	Waterworks Bureau, City of Sapporo
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Name of Activity	JICA Knowledge Co-Creation Program "Comprehensive Engineering on Water Supply Systems : Practical Training for Water Supply System(B)"
Implementation Period	June 6 - July 28, 2023
Main Organizer	JICA Hokkaido, Sapporo Waterworks Bureau, Sendai City Waterworks Bureau, etc.
Outline and Objectives	This cource aims to develop engineers who can play a leading role in the operation of water supply facilities or water supply business in order to solve the problems they are facing in their water supply business. It is designed for mid-career waterworks engineers from developing countries, and includes lectures on all aspects of waterworks technology, site visits, and practical training over a period of about two months. Due to the effect of COVID-19 pandemic, the training had been conducted online, but was resumed in Japan from FY2023. By the end of FY2013, the programme had been held 31 times and 344 trainees had been accepted, including 18 times for the Cold Region Waterworks Technology Course, which ran until FY2012. [Main programs of this training course] •Waterworks Planning •Operation and Management of WPP •Jar Test •Water Quality Management •Distribution Pipe Installation Plan •Leak Prevention •Water Demand Forecasting •Water Charge System •Discussion
Target (Cooperator) Countries	Mozambique, Yemen, Jordan (3 trainees total)

Group photo at the opening ceremony



Waterworks Bureau, City of Sapporo

Name of Activity	JICA Partnership Program: Project to systematize water supply and Distribution system Management in Pokhara, Nepal
Implementation Period	Feb 2022 - Jan 2025
Main Organizer	Sapporo Waterworks Bureau, JICA Hokkaido, Sapporo water service association, etc.
Outline and Objectives	[Outline] The project aims to train Nepalese engineers and enable them to systematically perform leakage response and water quality management tasks in a model district in Pokhara, Nepal. For the first year and a half of the project period, we will conduct online trainings and discussions using online meeting tools. After that, we plan to travel back and forth between each other's countries to conduct practical training and site visits. [Project purpose] The necessary tasks for maintaining and managing the quality and quantity of water supply are carried out systematically and continuously. [Activities in FY2023] •On-site training in Sapporo •On-site training in Pohkara •Online Meeting
Target (Cooperator) Countries	Nepal (Nepal Water Supply Corporation)
Photos	



[Courtesy call on the Water Utility Administrator]



[A scene of the training]

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
Main Organizer	Tokyo Waterworks Bureau, 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).
Target (Cooperator) Countries	Myanmar Yangon City Development Committee
Photos	





Name of Organization	Bureau of Waterworks, Tokyo Metropolitan Government

	The 16th Asian Waterworks Utilities Network of Human Resources
Name of Activity	Development
	(A1-HRD)
Implementation Period	Thursday October 19 to Friday October 20 , 2023
Main Organizer	The secretariat is the Bureau of Waterworks,TMG The host for the 16th meeting : Bureau of Waterworks,TMG
Outline and Objectives	[Background] Aimed at cities in Asia, this network was launched in 2008 based on a proposal by the Bureau of Waterworks, TMG.
	[Purpose] To contribute to the improvement of water supply services throughout Asia by exchanging information about knowledge and know-how relating to human resource development among water utilities in Asia.
	 [Main Activities] Annual conference on human resource development which includes presentation and Q&A session, sharing of ideas, open discussion and technical site visits. (The host country for the meeting is rotated among members.) Information dissemination of meeting results through the website and newsletters.
	• The opening ceremony was held at the Tokyo Water Science Museum on October 19. The meeting was held for the first time in both face-to-face and online formats at the Training and Technical Development Center on October 20, with presentations and exchange of opinions from all participants.
Target (Cooperator) Countries →Subject Countries/Utilities	Korea : Seoul Water, K-water Academy (Songsan Center) Taiwan : Taiwan Water Corporation (TWC),Taipei Water Department (TWD) Thailand : Metropolitan Waterworks Authority (MWA) Vietnam : Ho Chi Minh city college of construction (HCC) Bangladesh : Dhaka Water Supply and Sewerage Authority (DWASA) Japan : Bureau of Waterworks, Tokyo Metropolitan Government
	Tokyo Waterworks Company Limited (First participation as an observer)



Name of Organization	Bureau of Waterworks, Tokyo Metropolitan Government
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Name of Activity	JICA Knowledge Co-Creation Program: Non-Revenue Water Management
	(Leakage Control) B
Implementation Period	22 January to 2 Feburary 2024
Main Organizer	JICA
	With the aim of acquiring and improving knowledge and skills related to non- revenue water management with a focus on leakage prevention measures, we took part in the training to 6 trainee waterworks engineers from developing countries. Tokyo Waterworks Bureau has provided lectures on organizaing issues in the trainees' home countries and our non-revenue measures, exchanging and matching event with Japanese Private Company etc., and provided consultation on the trainees' action plans.
Outline and Objectives	



Name of Organization Yokohama Waterworks Bureau, City of Yokohama

Name of Activity	JICA Knowledge Co-creation program "African Region Urban Waterworks Engineering"
Implementation Period	September 4th to 21st (online), October 16th to November 2nd (in Japan), 2023
Main Organizer	JICA, Yokohama Water Co., Ltd., Yokohama Waterworks Bureau (YWWB)
Outline and Objectives	After the 4th Tokyo International Conference on African Development (TICAD IV), which took place in Yokohama in May 2008, Yokohama Waterworks Bureau (YWWB) contracted with JICA to implement a training course called "Knowledge Co-creation Program" for waterworks professionals from African countries. As of the end of JFY 2023, YWWB has implemented this one-month-course 15 times and accepted 153 participants from 32 countries in Africa, excluding two online-only training sessions. In Africa, many countries still have problems with water supply. Many of the African countries participating in this course are confronted with the challenges of high NRW rate ranging from 30 to 50% due to water leakage, illegal connection etc. YWWB offered a variety of lectures and practices in technical fields such as: water purification and quality management, distribution management, water supply planning and 0&M, also in the administrative fields like water tariffs, customer services and financial planning. During this training course, all the participants made action plans to solve their own issues based on what they learned in the lectures and practices, and brought them back to their countries to make a real difference on the ground. Contents of training program in JFY 2023: YWWB delivered a Hybrid of online and face-to-face training program. In September, the trainees watched video contents and also took part in weekly Q and A sessions through online meetings as pre-training before coming to Japan. In October, they finally visited Japan and toured water facilities, with the relaxation of travel restrictions.
Target (Cooperator) Countries	In 2023, YWWB accepted participants from 8 countries: Ethiopia, Zambia, Nigeria, Madagascar, Malawi, South Africa, South Sudan and Rwanda
Photos Photos	

Name of Organization	Yokohama Waterworks Bureau, City of Yokohama
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Name of Activity	JICA Technical Cooperation Project "The Project for Strengthening the Capacity of Non-Revenue Water Reduction for Lilongwe Water Board (LiSCaP)" in Malawi
Implementation Period	June 2019 to December 2024
Main Organizer	JICA, Kyowa Engineering Consultants Co., Ltd., Yokohama Water Co., Ltd., Yokohama Waterworks Bureau (YWWB)
Outline and Objectives	Yokohama Waterworks Bureau (YWWB) has dispatched staff to Lilongwe, the capital city of Malawi, since June 2019 to support the JICA Technical Cooperation Project "The Project for Strengthening the Capacity of Non-Revenue Water Reduction for Lilongwe Water Board (LiSCaP)". YWWB also collaborates with Kyowa Engineering Consultants Co., Ltd. and Yokohama Water Co., Ltd., members of the Yokohama Water Business Association. This "Team Yokohama" is now working on improving water supply business by supporting Lilongwe Water Board (LWB) for their strategic planning, methods and knowledge sharing for reducing non-revenue water (NRW) due to leakage, illegal connection, etc. Contents of technical cooperation in JFY 2023: YWWB dispatched a long-term expert from 2019 to 2022. In 2023, YWWB dispatched short-term experts in July and November to support the project. In June, a workshop was held for five water supply utilities nationwide in Malawi in order to expand the project results to other utilities and YWWB provided the guidance about the implementation of the NRW Reduction Strategy.
Target (Cooperator) Countries	Lilongwe Water Board (LWB), Malawi
<image/>	

leakage survey in Malawi

Name of Organization	Yokohama Waterworks Bureau, City of Yokohama
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Name of Activity	Technical Exchanges based on Memorandum of Understanding between Water and Sanitation Agency of Faisalabad in Pakistan and Yokohama Waterworks Bureau
Implementation Period	From October 2019
Main Organizer	Yokohama Waterworks Bureau
	Yokohama Waterworks Bureau (YWWB) had supported a JICA Technical Cooperation for Development Planning "The Project for Water Supply, Sewerage and Drainage Master Plan of Faisalabad" through Yokohama Water Co., Ltd. (YWC) (July 2016 - June 2019). During this project, YWWB received a request from the Managing Director of Water and Sanitation Agency of Faisalabad (WASA-F) for further cooperation between the city governments. In order to contribute to professional development and water business promotion for both the cities, YWWB and WASA-F signed an MoU on technical exchange in October 2019. From JFY 2020, YWWB and WASA-F have held online seminars. From JFY 2022, YWWB has strengthened the collaboration with JICA "the Project for Improvement of the Management Capacity of Water Supply Sector in Faisalabad".
Outline and Objectives	 Contents of MoU Organizing an online seminar (once a year) Introduction of products and technologies of the Yokohama Water Business Association (YWBA) member companies Collaboration with JICA "the Project for Improvement of the Management Capacity of Water Supply Sector in Faisalabad" Contents of training program in JFY 2023: In September, YWWB held a two-day online seminar. Date: September 11th and 12th, 2023 The number of participants:29 (WASA-F) Audience:2 member companies of Yokohama Water Business Association Discussion themes: 1) Water meter Management, 2) Discussion on network
Target (Cooperator) Countries	analysis. 3) Business-matching with 3 member companies of Yokohama Water





Ceremony for conclusion of MoU (JFY2019)

Online seminar participants (JFY2023)

Name of Organization	Yokohama Waterworks Bureau, City of Yokohama
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Name of Activity	The Project for Improvement of Management Capacity of Water Supply Sector (MaWaSU 2·3)
Implementation Period	MaWaSU2 : from May 2018 to December 2023 MaWaSU3 : from February 2024 to February 2028
Main Organizer	JICA
Outline and Objectives	The purpose of this project is to "establish the necessary infrastructure for strengthening the water supply sector management system and the capacity of Water Supply State Enterprise's (WSSE)' to achieve Laos' national goals". In order to improve waterworks administration and strengthen the planning and implementation capacity of WSSE, YWWB dispatched short-term experts in the field of public finance and accepted training in Japan in the same field. This project is carried out in collaboration with four local governments (Saitama Prefecture, Saitama City, and Kawasaki City) including Yokohama City, and five organizations including JICA. As the successor project, "MaWaSU3" is implemented from February 2024, which Yokohama City cooperates continuously with in the field of finance.
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 (NPNL), Luang Prabang Provincial Water Supply State Enterprise(NPLB) and Khammouane Provincial Water Supply State Enterprise (NPKM) as the pilot water supply state enterprises (WSSEs), Department of Public Works and Transport (DPWT)s of Vientiane Capital, Luang Prabang, Khammouane and WSSEs and DPWTs of other provinces. Lao Water Works Association(LWWA)



Short-term expert



Training in Japan

Name of Organization

Yokohama Waterworks Bureau, City of Yokohama

Name of Activity	JICA Partnership Program "The Project for Capacity Development of PERUMDA Tirtanadi for 24 Hours Safe Water Supply"
Implementation Period	from April 28th, 2023 to April 27th, 2027
Main Organizer	Yokohama Waterworks Bureau (YWWB)
Outline and Objectives	The purpose of this project is to give advice for improving water distribution facilities and instruct staff on how to improve the capacity of water distribution management and treatment of high-turbidity water in Medan, Indonesia, in order to realize safe 24-hour water supply in response to increase in water demand due to population growth. In addition, the project will assist Japanese water supply-related companies in developing their bussiness there, by researching local needs for the products and technologies During the project, Yokohama Waterworks Bureau dispatches staff to Indonesia about three times a year and carries out training in Japan once a year.
Target (Cooperator) Countries	PERUMDA Tirtanadi of North Sumatra Province
field a	ctivity training in Japan

Name of Organization	Waterworks and Sewerage Bureau, City of
Name of Organization	Kawasaki

Name of Activity	Laos , The Project for Improvement of Management Capacity of Water Supply Sector (MaWaSU 2)
Implementation Period	May , 2018 - December , 2020
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(WSSE) capacity is formulated" to achieve Lao national goals. We dispatched long-term and short-term engineers and accepted the trainees from Laos. 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. [FY2023 Results] •Long term expert(sub-chief advisor) : 1staff •Short term expert(water quality) : 1staff •Acceptance of trainees : 9trainees •Participation in closing seminar : 2staff
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 (NPNL), Luang Prabang Provincial Water Supply State Enterprise (NPLB) and Khammouane Provincial Water Supply State Enterprise (NPKM) as the pilot water supply state enterprises (WSSEs), Department of Public Works and Transport (DPWT)s of Vientiane Capital, Luang Prabang, Khammouane and WSSEs and DPWTs of other provinces



Name of Organization

Waterworks and Sewerage Bureau, City of Kawasaki

Name of Activity	Laos , The Project for Improvement of Management Capacity of Water Supply Sector (MaWaSU 3)
Implementation Period	February , 2024 - February , 2028
Main Organizer	JICA
Outline and Objectives	Continuing from Phase 2, the purpose of the MaWaSU3 is strengthening the sustainable system of the water supply sector in goverment and each province to contribute to improving the management, planning, and operational capacity of the water supply sector in order to achieve the national goals of the Lao PDR. The main activities are (1) Strengthening the capacity of the Department of Water Supply (DWS) of the Ministry of Public Works and Transport(MPWT) in terms of law enforcement, monitoring, and management; (2) Strengthening the coordination system between the Department of Public Works and Transport(DPWT) and Water Supply State Enterprises(WSSEs) for developing water supply facility plans; and (3) Systematizing capacity building programs for WSSEs. 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. We dispatch long-term expert from April 2024, and plan to dispatch short-term experts and accept trainees from Laos. We will support the development of the water supply sector in Laos through the project activities.
Target (Cooperator) Countries	DWS of MPWT, DPWTs in each province,WSSEs in each province,Laos Water Works association(LWWA)
Photos	



Name of Organization	Waterworks and Sewerage Bureau, City of
	Kawasaki

Name of Activity	Indonesia • The Project for Improvement of Implementation Capacity of Underground Leakage Countermeasure in Makassar City - Towards Effective Use of Water Resources -
Implementation Period	Nov , 2022 - Oct , 2025
Main Organizer	JICA
Outline and Objectives	In order to reduce the high non-revenue water, which is a major issue in Makassar city, Indonesia, the technical cooperation project utilizing the JICA Partnership Program (Local government type) will be implemented to support underground leakage countermeasure.(Abbreviation: MaKaPro) The objective of MaKaPro is to improve the ability of Perumda Makassar's capability to implement water leakage prevention measures. The aim is to reduce the non-revenue water ratio in Makassar city by efficiently transferring the technology. Activities include the local dispatch of our technical staff and training in Japan for Perumda Makassar. [FY2023 Results] •Dispatch of staff (4times) : 20staff •Acceptance of trainees (2times) : 6trainees
Target (Cooperator) Countries	Indonesia/Perumda Makassar
Photos	





Name of Activity	MOU with Lang Son Province, Vietnam
Implementation Period	November 2018 - December 2025
Main Organizer	Public Enterprises Agency of Kanagawa Pref. Government (PEA-KPG)
Outline and Objectives	 PEA-KPG signed "MOU on Consideration of the Possibility of a Cooperative Relationship in the Field of Water Supply" with Lang Son Province, Vietnam in 2017 and has been exploring methods and contents of cooperation. In response to the counterpartner's suggestion posed during the discussion to proceed an approach to decrease non-revenue water, we developed the MOU to "MOU on Technical Cooperation in Water Supply" in 2018. Based on the new MOU, PEA- KPG started sending our personnel in a short term for training and field study jointly with staffs of Lang Son Water Supply and Drainage JSC mainly on water volume management, as well as continuing training programs in Kanagawa. In FY2023, we invited two trainees in October for lectures and observations. Employees of Kanagawa Waterworks were also dispatched to the province in January 2024 to investigate the facilities, leakages and teh installation status of flow meters in the supply area. In addition, we held online meetings regularly and shared information and challenges. <u>Achievements in FY2023</u> Acceptance of trainees: October 10-27, 2023 (2 trainees) (using Administrative Policy Program of Kanagawa Prefecture) Dispatch of employees: January 15-23, 2024 (7 employees) Others: Implemetation of online meetings Monthly distribution analysis in the model area (April - March) Communicataion regarding distribution volume, network drawing, etc.
Target (Cooperator) Countries	Lang Son PPC, Lang Son Water Supply and Drainage JSC (Viet Nam)





Leakage investigation in Lang

Lecture during Administrative Policy

Name of Organization	Chiba Prefectural Public Enterprises Bureau

Name of Activity	JICA Technical Cooperation Projects "The Project for Improvement of Water Supply Management of Bee Timor- Leste"
Implementation Period	2021-2024
Main Organizer	JICA
Outline and Objectives	At the request of JICA, Chiba Prefectural Public Enterprises Bureau(CPPEB) has dispatched 5 long-term and 29 short-term technical staffs to Timor-Leste since 2012 for the purpose of improving water supply systems though providing technical assistance. Currently, CPPEB has been participating in a technical cooperation project launched by JICA in 2021 and dispatching technical staffs into Timor-Leste providing on-site guidance for Bee Timor-Leste (BTL) in order to enhance their technical capabilities related to maintenance and water treatment at water treatment plants as well as installment and maintenance of water distribution pipes. [FY2023 Dispatch of a expert] December 10, 2022 - December 9, 2024 a Long-term expert (1 staff) October 29, 2023 - November 18, 2023 Short-term experts (2 staffs) January 21, 2024 - February 11, 2024 Short-term experts (2 staffs)
Target (Cooperator) Countries	Bee Timor-Leste



Instructions on how to repair a chemical dosing pump

Installment of water distribution pipes

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Name	OŤ	Organization

Saitama City Waterworks Bureau

Name of Activity	The Project for Improvement of Management Capacity of Water Supply Sector of Lao PDR (MaWaSU2)
Implementation Period	May 2018 \sim December 2023
Main Organizer	JICA
Outline and Objectives	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(WSSE) .3 pilot WSSEs practice to the other WSSEs in Laos toward to improve water supply served population. We dispatch experts with Kawasaki City,Yokohama City and Saitama Prefecture. [FY2023 Dispatch experts] 8th May 2021 ~20th December 2023 (Long-term expert[Chief advisor]:1 staff) 2nd August 2023 ~ 15th September 2023 (Short-term expert[Civil Engineering]:1 staff) [Closing Seminar] 22th November 2023 ~ 26th November 2023 [Detail about JICA technology cooperation project] MaWaSU1 ⇒https://www.jica.go.jp/project/english/laos/012/index.html MaWaSU2 ⇒https://www.jica.go.jp/project/english/laos/023/index.html
Target (Cooperator) Countries	Laos / Department of Water Supply , Ministry of Public Works and Transport 、Pilo WSSEs(Vientiane Capital , Luang Prabang Provincial , Khammouane Provincial) and Department of Public Works and Transort(DPWT) 、other provinces WSSE and DPWT





Name of Organization	of Organization
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Saitama City Waterworks Bureau

Name of Activity	The Project for Improvement of Management Capacity of Water Supply Sector of Lao PDR (MaWaSU3)
Implementation Period	February 2024 \sim February 2028
Main Organizer	JICA
Outline and Objectives	This project aims to enhance sustainable mechanism for the improvement of management, planning, and operational capacities in the water supply sector at the national and provincial levels in Laos, to achieve the national goals of the country. We dispatch experts with Kawasaki City, Yokohama City and Saitama Prefecture. [Main Activities] •Capacity of Department of Water Supply(DWS) to implement, monitor and manage laws and regulations in water supply administration is enhanced. •Deliberation structure on feasibility of water supply facility development betweer Department of Public Works and Transport(DPWT) and Water Supply State Enterprise(WSSE) is enhanced through their capacity development on basic planning of water supply facilities. •Capacity development programs for WSSEs are systematized in a sustainable manner. [Detail about JICA technology cooperation project] MaWaSU1 ⇒https://www.jica.go.jp/project/english/laos/012/index.html MaWaSU2 ⇒https://www.jica.go.jp/project/english/laos/023/index.html MaWaU3⇒ https://www.jica.go.jp/english/information/press/2023/20230823_31.html
Target (Cooperator) Countries	Laos / Department of Water Supply , Ministry of Public Works and Transport $\mbox{\ }$ MPWT-DWS, DPWTs and WSSEs

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Name of Organization	Saitama Prefectural Public Enterprise Bureau
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Name of Activity	The Project for Enhancement of Human Resource Development for Waterworks in Thailand and Laos
Implementation Period	December 2022 - December 2025
Main Organizer	Saitama Prefectural Public Enterprise Bureau
Outline and Objectives	 This project is implemented as a JICA Partnership Program. The purpose of this project is to contribute to the development of water supply in Thailand and Laos by strengthening the human resource development system for the appropriate and efficient operation and management of water supply facilities in the water utilities of the two countries, thereby realizing the stable supply of high-quality water. <activities 2023="" fy="" in=""></activities> Conference (Thailand and Laos, 3 staffs) July 31 - August 5 Training in Japan (5 staffs from Thailand, 4 staffs from Laos) August 28 - September 1 Dispatch of engineers (Laos, 4 staffs) November 19 - December 2 Dispatch of engineers (Thailand, 4 staffs) December 11 - 23 Joint Meeting (Online)
T	January 26
Target (Cooperator) Countries	Thailand / Provincial WaterworksAuthority (PWA) Lao PDR / Vientiane Capital Water Supply State Enterprise (NPNL)
Photos	Lao i Divy vientiane capital water Supply State Enterprise (NFNE)



Field survey (Thailand)



Discussions (Thailand)



Field survey (Laos)



Lecture (Laos)

Name of Organization

Saitama Prefectural Public Enterprise Bureau

Name of Activity	The Project for Improvement of Management Capacity of Water Supply Sector
Implementation Period	May 2018 - December 2023
Main Organizer	JICA
Outline and Objectives	<outline> JICA web page https://www.jica.go.jp/project/english/laos/023/index.html <cooperation contents=""> In accordance with the cooperation agreement on the project concluded in May 2018, we are cooperating in the dispatch of experts in the field of equipment and water quality and the acceptance of trainees. <activities 2023="" fy="" in=""> O Participation in closing seminar 2 staffs (November 23)</activities></cooperation></outline>
Target (Cooperator) Countries	Lao PDR / DWS of MPWT, Vientiane Capital Water Supply State Enterprise (NPNL), Luang Prabang Provincial Water Supply State Enterprise (NPLB) and Khammouane Provincial Water Supply State Enterprise (NPKM) as the pilot water supply state enterprises (WSSEs), Department of Public Works and Transport (DPWT) of Vientiane Capital, Luang Prabang, Khammouane and WSSEs and DPWTs of other provinces
Photos	

Photos



Closing seminar in Laos

Name of Organization	Nagoya City Waterworks and Sewerage Bureau
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	The JICA Training and Dialogue Programs
Name of Activity	Non-Revenue Water Management(Leakage Control)
Implementation Period	16 October \sim 17 November 2023
Main Organizer	JICA
Outline and Objectives	This program aims to Capacity Development for Non Revenue Water management of Developing countries engineers. The main training programs in Nagoya are as follows; •Leakage Control •Water Distribution Planning •Pipeline Design •Maintenance of water supply system •Site visits (Water Puri cation Plant, Pipeline Center etc.) •Public Relations •Water Meter Readings
Target (Cooperator) Countries	Brazil, Cambodia, Egypt, El Salvador, Jordan, Philippines
Photos	

Name of Organization	Nagoya City Waterworks and Sewerage Bureau
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Name of Activity	JICA Partnership Program "PROJECT FOR ENHANCEMENT OF MEASURES
	AGAINST EARTHQUAKE OF WATER SUPPLY AND SEWERAGE IN MEXICO CITY"
Implementation Period	3 February 2020 \sim 28 December 2023
Main Organizer	Nagoya City Waterworks and Sewerage Bureau
Outline and Objectives	In Mexico City, a large earthquake that occurred in central Mexico in September 2017 damaged many water and sewage facilities, temporarily affecting approximately 3 million citizens with water outages. This project aims to strengthen Mexico City's earthquake countermeasures in the water supply and sewage sectors by sharing with Mexico City the knowledge and expertise of the Nagoya City Water and Sewerage Bureau regarding earthquake countermeasures it has implemented to date. The activities in FY2023 are as follows •The 4th dispatch of experts (June 28-July 9, 2023) 3 people were dispatched. •Second training in Japan (August 28-September 9, 2023)
	6 Trainees were accepted.•The 5th dispatch of experts and presentation of results (October 15 - 27, 2023)3 people were dispatched.
Targat (Caaparatar)	Maying City Water works and Courses a Durany (CACMEV)
Target (Cooperator)	Mexico City Waterworks and Sewerage Bureau(SACMEX)
Countries	Mexico City Integrated Risk Management and Civil Protection Agency(SGIRPC)
Photos	



4th Dispatch of Experts Emergency water supply training with citizens



The Second Training Course in Japan Observation of training disaster drills



5th dispatch of experts Puppet show to raise awareness of water use during disasters

Organization Name

Toyohashi Waterworks & Sewerage Bureau

	Grassroots Technical Cooperation Project
Project Name	Project for Strengthening Tap Water Supply Services in Solok
	(Region Revitalization Special Framework)
Project Term	April 2023 - March 2026
Organizing Agency	Japan International Cooperation Agency (JICA)
Project Outline and Objectives	 Project Outline and Objectives Building upon the positive results of the water purification technology guidance provided to the city of Solok during Phase 1, we are implementing efforts aimed at ensuring a stable system for providing "drinkable tap water" produced at water filtration plants to residents. Furthermore, as part of these efforts, we are cooperating with organizations associated with Public Water Supply Company and Andalas University, etc., in the Padang city region, and conducting activities linked to the development of human resources and the establishment and transmission of skills and technology acquired thus far. Principal Activities for Phase 2 (2023 - 2025 fiscal years) Conduct training on improving water distribution pipes for staff in charge of plumbing at Solok Region Public Water Supply Company to ensure a steady supply of "drinkable tap water" for Solok residents in the model district. Promote "drinkable tap water" to residents of Solok, and aim to raise awareness of water supply projects and improve residents' daily lives. Conduct human resources development so that local supervising staff can themselves pass on skills they've acquired to establish the water supply technology necessary for providing a stable supply of "drinkable tap water." Principal Activities for the 2023 Fiscal Year Determined the scope of the model region based on field investigations and water pressure surveys, and confirmed designated water pressure at end hydrants through on-site training (e.g., valve adjustment training). Conducted practical training to improve "drinkable tap water" production capacity.
Target (Partner) Countries, Organizatior	Republic of Indonesia Solok Region Public Water Supply Company

Photos





Name of Organization

Osaka Municipal Waterworks Bureau (OMWB)

Name of Activity	Technical Exchange between SAWACO,DOWACO and OMWB
Implementation Period	On-site survey: September 10-16, 2023 Training in Japan: December 10-16, 2023
Main Organizer	Osaka Municipal Waterworks Bureau (OMWB)
Outline and Objectives	In December 2009, Osaka Municipal Waterworks Bureau (OMWB) concluded a "Technical Partnership Agreement" with the Saigon Water Corporation (SAWACO of water supplier Ho Chi Min City. In December 2021, OMWB, SAWACO and Dong nai Water Joint Stock Company (DOWACO) which supply water in Dong nai Province neiboring Ho Chi Min City, newly signed "Technical Partnership Agreement", and we have held a technical exchange annualy, since then. In preparation for the technical exchange training in Japan in FY2023, a field survey was conducted in September 2023 to understand the current status of SAWACO and DOWACO in detail. Ten staff members from SAWACO and five from DOWACO participated in the training in Japan in December 2023, and conducted technical exchange on the themes of "effective use of GIS," "safe water supply," and "non-revenue water measures. Not only The facilities and technologies owned by OMWB were explained and introduced, but also SAWACO and DOWACO introduced case studies they are working on, followed by an exchange of opinions. They also toured the OMWB's facility "Aquatic Osaka" and our overseas water business partner companies introduced the products and technologies related to the technical exchange theme to SAWACO and DOWACO.
Target (Cooperator) Countries	Saigon Water Corporation (SAWACO), Dong Nai Water Supply Joint Stock Company (DOWACO), Vietnam
Photos	



Case studies (SAWACO)

Visit to Aquatic Osaka

Name of Organization	Osaka Municipal Waterworks Bureau (OMWB)
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Name of Activity	CLAIR "Republic of Indonesia Jambi City Waterworks Management Capacity Improvement Project (Human Resources Development)" Training in Japan
Implementation Period	On-site survey: July 23-29, 2023 Training in Japan: November 4-11, 2023
Main Organizer	Osaka Municipal Waterworks Bureau (OMWB)
Outline and Objectives	On August 28, 2023, OMWB signed a Memorandum of Understanding on Technical Cooperation with Jambi Water Public Company (Tirta Mayang), the water utility of Jambi City, Republic of Indonesia, with the aim of implementing technical cooperation to ensure a safe and high-quality water supply in Jambi City. In FY 2023, we received funding from the Council of Local Authorities for International Relations (CLAIR) to implement the "Jambi City Waterworks Management Capacity Improvement Project (Human Resources Development) in the Republic of Indonesia" with the aim of improving the technical skills of staff involved in the waterworks business in Tirta Mayang. In order to conduct training in Japan for this project, we visited Tirta Mayang in July 2023 to understand the current situation and needs regarding business operations and human resource development in the area and to create a highly effective training program. During their training in Japan, We accepted four staff members from Tirta Mayang and gave the lectures and practical training on the themes of "human resource development and business operation," "operation and maintenance of the water purification plant," "water quality management," and "leakage prevention measures."
Target (Cooperator) Countries	Jambi Municipal Water Corporation (Tirta Mayang),Indonesia
Photos	



Water quality analysis training



Leak detection training

Osaka Municipal Waterworks Bureau	(OMWB)
	Osaka Municipal Waterworks Bureau

Name of Activity	JICA Knowledge Co-creation program"Operation and Maintenance of Urban Water Supply System "
Implementation Period	June 1st - July 4th, 2023
Main Organizer	JICA
Outline and Objectives	Osaka Municipal Waterworks Bureau(OMWB) has implemented the training of "Group Training Course (Operation and Maintenance of Urban Water Supply System)" established by JICA in 1994 and has accepted many trainees until now. Since 2012, the training has been devided into more specialized two courses, for Water distribution and supply and for water quality and purification. In addition, since FY 2016, Osaka City, Kobe City, Kyoto City and Sakai City (since FY 2020) have been collaborating to provide training more effectively and efficiently respond to the diversifying needs of trainees, by using the technical capabilities and facilities of each city effectively. Due to the COVID-19 pandemic, the 2020 training was canceled, and the 2021- 2022 training was conducted online, but in 2023, the training visit to Japan was held in person for the first time in four years. In addition to lectures and practical training on topics such as water facility maintenance and water purification technology, each trainer held discussions with the trainees about their needs and consulted with them based on applicable Japanese technologies, and created action plans to solve issues facing their home countries.
Target (Cooperator) Countries	Philippines, Pakistan, Jordan, North Macedonia, Zambia, Senegal, Papua New Guinea, Solomon Islands, Timor-Leste, Bangladesh, Malawi, Samoa, Peru, Honduras, Laos, Nepal (Trainees: 16 in total)





Consultation

Water purification training

Name of Organizati	on
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Osaka Municipal Waterworks Bureau (OMWB)

Name of Activity	NOC Training SAWACO
Implementation Period	April 10-19, 2023
Main Organizer	Osaka Municipal Waterworks Bureau (OMWB)
Outline and Objectives	In December 2009, OMWB concluded a "Technical Partnership Agreement" with the Saigon Water Corporation (SAWACO) of water supplier Ho Chi Min City, and we have held a technical exchange based on that agreement. In order to improve the efficiency of business operations, SAWACO is considering establishment a network operation center (NOC) to centrally manage operational management data for each water treatment plant, various water quality data, water supply pipe information, customer information, etc. SAWACO has requested training on establishing NOCs from OMWB that have introduced centralized operational management such as integrated water supply services so far. For this training, OMWB accepted six staff members from SAWACO and gave the lectures on the overview of the Integrated Water Operations Center and on various systems, including the water quality telemetry system and water distribution information system. Additionally, we conducted tours and technical explanations of overseas water business partner companies that have products and technologies that can help to solve SAWACO's problems.
Target (Cooperator) Countries	Saigon Water Corporation (SAWACO), Vietnam
Photos	



Tour of General Water Control Center



Partner company office visit

Name of Organization	Name	of O	rganiz	ation
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Osaka Water Supply Authority

Name of Activity	Inspection of water treatment technology by Anyang water and sewage utility
Implementation Period	11th May 2023
Main Organizer	Osaka Water Supply Authority
Outline and Objectives	A tour of the facilities at the Niwakubo WTP and exchange of opinions was conducted to observe the operation and management technology of the water purification plant and wastewater treatment management technology. O Contents: • Advanced water purification operation • Water quality management in water purification • Operation of backwash • Management of microorganisms • Operation of wastewater treatment • Exchenge of opinions, etc.
Target (Cooperator) Countries	Korea: Anyang water and sewage utility
Photos	





Osaka Water Supply Authority

Name of Activity	Inspection of water treatment technology by Anyang water and sewage utility
Implementation Period	8th November 2023
Main Organizer	Osaka Water Supply Authority
Outline and Objectives	A tour of the facilities at the Niwakubo WTP and exchange of opinions was conducted to observe the operation and management technology of the water purification plant and wastewater treatment management technology. O Contents: • Advanced water purification operation • Water quality management in water purification • Operation of backwash • Management of microorganisms • Operation of wastewater treatment • Exchenge of opinions, etc.
Target (Cooperator) Countries	Korea: Icheon water and sewage utility
Photos	





	JICA Knowledge Co-Creation Program "Operation and Maintenace of Urban Water
Name of Activity	Supply System (Water Quality and Purification) (A)"
Implementation Period	1 Jun - 4 Jul , 2023
Main Organizer	JICA Kansai
Outline and Objectives	In collaboration with Osaka City, we provided training for 7 trainees. In order to help the trainees solve problems in their work, we checked the actual situation of their organizations and problems in their work, and gave them advice on how to solve their problems.
Target (Cooperator) Countries	Timor-Leste,Bangladesh,Malawi,Zambia,Samoa,Peru,Honduras
Photos	

Name of Organization	KOBE City Waterworks Bureau
Nume of organization	

Name of Activity	JICA knowledge co-creation Program "Operation and Maintenace of Urban Water Supply System (Water Quality and Purification) (B)"
Implementation Period	2023年6月13日~7月28日
Main Organizer	JICA-Kansai
Outline and Objectives	This training is aiming to foster engineers who are in charge of water quality and purification. 7 participants from 6 countries joined this program in 2023. Based on on-demand classes, in-person classes and Q&A session with training instructors, participants made an Action Plan aiming to solve the problems each of their countries have. Main programs of the training course are as follows. • Make and Report a Country Report • Trainng Program (on-demand class) • Trainng Program (in-person class) • Make and Report an Action Plan • Q&Asession
Target (Cooperator) Countries	Iraq、Tajikistan、Cambodia、Ukraine、Rwanda、Republic of South Sudan



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	October 31 to November 30, 2023
Main Organizer	JICA
	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 96 trainees since receiving JICA Chugoku's request in 2013.
Outline and Objectives	Main Programs of Training Course: •Hydrologic Accounting •Operation and Maintenance of Purification Plants •Water Quality Management •Leak Prevention Training •Waterworks Facilities Information Management System •Repair of Burst Water Pipes
Target (Cooperator) Countries	India, Laos, Malawi, Mozambique, Nepal, Palestinian Authority, Rwanda, Tajikistan, Ukraine [nine participants in total]
Photos	

Name of Organization	Shimonoseki City Waterworks & Sewerage Bureau
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Name of Activity	2023 Staff Exchange Program with Qingdao Water Group Co., Ltd.
Implementation Period	October 23th- 27th in Qingdao, December 11th-15th in Shimonoseki
Main Organizer	Shimonoseki City Waterworks & Sewerage Bureau·Qingdao Water Group Co., Ltd.
Outline and Objectives	The cities of Shimonoseki and Qingdao have promoted friendly exchanges in a variety of fields since becoming friendship cities in 1979. As part of these activities, Shimonoseki City Waterworks & Sewerage Bureau and Qingdao Water Group CO., Ltd dispatch the staffs mutually from 2000. This staff exchange program is aiming to deepen friendly relations and improve water and sewerage technology in both cities. Due to the impact of Covid-19 outbreak, the program had been suspended from 2020. In 2023, it has been resumed to conduct with all of both paties cooperation.
Target (Cooperator) Countries	China•Qingdao Water Group Co., Ltd.





Name of Organization	Fukuoka City Waterworks Bureau
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Name of Activity	JICA Technical Cooperation Project: Project for Capacity Development of Non- Revenue Water Reduction in Nadi and Lautoka Area
Implementation Period	May 2023 – July 2026
Main Organizer	JICA, Nihon Suido consultants, Yachiyo Engineering, Fukuoka City Waterworks Bureau
Outline and Objectives	 Summary/Purpose In Nadi and Lautoka area located in the western part of the Republic of Fiji, NRW ratio is as high as 48% and water demand is expected to increase with population growth. It is necessary that the area keeps water supply by reducing NRW and Water Authority of Fiji enhances its NRW management capability. Due to the background, JICA is conducting this technical cooperation project, and Fukuoka City Waterworks Bureau participates in the project as a short-term expert and provides technical advice. Activities One staff was dispatched to Fiji as a short-term expert in fiscal year 2023 to provide technical advice for NRW management.
Target (Cooperator) Countries	Water Authority of Fiji, Republic of Fiji
photos	



Name of Organization

Fukuoka City Waterworks Bureau

Name of Activity	JICA Group and Region Focused Training: Non-Revenue Water (NRW) Management (Leakage Control)
Implementation Period	Online program: October 4, 2023 – October 13, 2023
	Course in Japan: October 23, 2023 - November 10, 2023
Main Organizer	JICA
Outline and Objectives	 Summary/Purpose Developing 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 transfering Fukuoka City's expertise and techniques on waterworks, Fukuoka City contributes to improve those countries' water supply environment. In addition, these aims to develop the capability of the engineers in Fukuoka City through international cooperation activities and to improve their technical standards by accumulating activities. The course program in fiscal year 2023 was a mixture of online and in-person training in Japan. While online training had on-demand lectures, in-person training in Japan had some site visits and exercises. Activities Lectures: water supply in Fukuoka city; NRW management, water leakage prevention; design, construction and maintenance of distribution pipepipe; and human resource development, and so on Site visits: construction site of distribution pipe, meter instrumental error test, sea water desalination institution, and customer center, and so on Exercises: NRW reduction training at technical training center Support: creating action plans
Target (Cooperator) Countries	Djibouti (1 person), Honduras (1 person), Kiribati (1 person), Laos (1 person), Nicaragua (2 person), Solomon Islands (1 person), Timor-leste (1 person)



Name of Organization Japan Water Works Association	
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	Supply Systems: Basic Planning and Design for Water Supply System (A)"
Implementation Period	10 November- 15 December, 2023
Main Organizer	JICA
Outline and Objectives	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. The program features a number of lectures, observation tours and exercises regarding comprehensive water supply technologies for about 2 months. This is our 56th time providing this program. The total number of participants are 664 from more than 100 countries and regions in the long history. Main programs of the training course are as follows. •Country Report Presentation •Water Safety Plan •Visit to Dam for Water Supply •Water Leak Detection Demonstration and Practice •Visit to Gravity Flow Water Treatment Plant •Basic Planning for Water Supply Facilities •Visit to Open Cut Method Pipe Laying Construction •Jar Test(Optimization of Coagulation / Flocculation Process) •Action Plan Presentation [Reference] http://www.jwwa.or.jp/english/en_04.html
Target (Cooperator) Countries	CAMBODIA, FIJI, LAOS, MAURITANIA, RWANDA (Total 5 participants)



