

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	8 August - 30 September, 2022
Main Organizer	JICA Hokkaido, Sapporo Waterworks Bureau, Sendai City Waterworks Bureau, etc.
Outline and Objectives	<p>This course 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.</p> <p>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.</p> <p>Due to the effect of COVID-19 pandemic, the program was conducted online in FY2022.</p> <p>[Main programs of this training course]</p> <ul style="list-style-type: none"> •Waterworks Planning (video material) •Operation and Management of WPP (video material) •Jar Test (video material) •Water Quality Management (live streaming) •Distribution Pipe Installation Plan (video material) •Leak Prevention (video material) •Water Demand Forecasting (video material) •Water Charge System (video material) •Discussion (live streaming) •WPP Field Trip (VR material) •Q&A session for training materials (live streaming) •Guidance on making action plan (live streaming), etc.
Target (Cooperator) Countries	Samoa, Bhutan, Bangladesh, Sri Lanka, India (6 trainees total)

Group photo at the closing ceremony



Name of Organization	Waterworks Bureau, City of Sapporo
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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	<p>【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.</p> <p>【Project purpose】 The necessary tasks for maintaining and managing the quality and quantity of water supply are carried out systematically and continuously.</p> <p>【Activities in FY2022】 •Online survey of the current situation (using the survey form created in FY2021) •Creation of video materials (by Sapporo Waterworks Bureau staff) •watching video materials (Nepalese engineers watched video materials uploaded on YouTube) •Responding to questions about the video materials (connected in real time via Zoom)</p>
Target (Cooperator) Countries	Nepal (Nepal Water Supply Corporation)

Photos



【Online Discussion】



This section introduces the water leak prevention system and work in Sapporo.

【A scene from teaching video materials】

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). Furthermore, we plan to carry out maintenance and management projects funded separately by Yangon City in order 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	Asian Waterworks Utilities Network of Human Resources Development (A1-HRD)
Implementation Period	Tuesday the 1st of November, 2022
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:</p> <ul style="list-style-type: none"> -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>Due to the influence of COVID-19, the 15th conference in 2022 was held online.</p>
Target (Cooperator) Countries	<p>Korea : The Office of Waterworks, Seoul Metropolitan Government (Seoul Water) K-water Academy</p> <p>Taiwan : Taiwan Water Corporation (TWC),</p> <p>Thailand : Metropolitan Waterworks Authority, Thailand (MWA)</p> <p>Vietnam : Ho Chi Minh city college of construction (HCC)</p> <p>Bangladesh : Dhaka Water Supply and Sewerage Authority (Dhaka-WASA)</p> <p>Japan : Bureau of Waterworks, Tokyo Metropolitan Government</p>

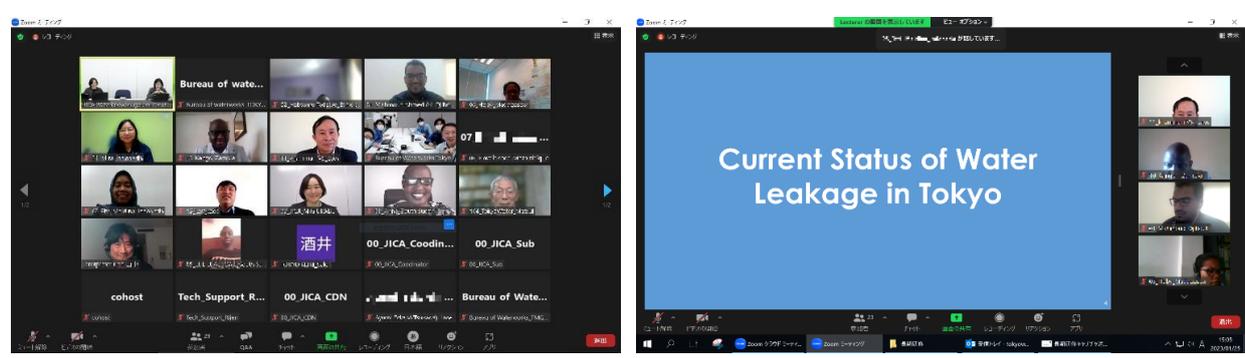
Photos



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	19 January to 2 February 2023
Main Organizer	JICA
Outline and Objectives	<p>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 12 trainee waterworks engineers from developing countries in an online format.</p> <p>Tokyo Waterworks Bureau has provided lectures on organizaing issues in the trainees' home countries and our non-revenue measures, etc., and provided consultation on the trainees' action plans.</p>
Target (Cooperator) Countries	Indonesia, Malaysia, Pakistan, Zambia, Djibouti, Madagascar, Mozambique, South Sudan, Ethiopia

Photos



Name of Organization	Yokohama Waterworks Bureau, City of Yokohama
Name of Activity	JICA Knowledge Co-creation program "African Region Urban Waterworks Engineering"
Implementation Period	July 4th to 28th (online), November 10th to 24th (in Japan) , 2022
Main Organizer	JICA, Yokohama Water Co., Ltd., Yokohama Waterworks Bureau (YWWB)
Outline and Objectives	<p>Responding to the 4th Tokyo International Conference on African Development (TICAD IV) held 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. By the end of JFY 2022, YWWB implemented this course 14 times and accepted 145 participants from 32 countries in Africa.</p> <p>In Africa, many countries still have problems with water supply, which are also featured in the TICAD every time. 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.</p> <p>YWWB offered a variety of lectures and practices in the technical fields such as: water purification and quality management, distribution management, water supply planning and O&M, also in the administrative fields like water tariff, customer services and financial planning. During this training course, all the participants made their 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.</p> <p>Contents of training program in JFY 2022:</p> <p>YWWB delivered a Hybrid of online and face-to-face training program. 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 November, they finally visited Japan and toured water facilities, with the relaxation of travel restrictions.</p>
Target (Cooperator) Countries	In 2022, YWWB accepted 12 participants: Ethiopia (2), Cameroon (1), Kenya (1), Zambia (1), Madagascar (3), Malawi (2), South Africa (1) and South Sudan (1)
Photos	
	
Video lecture and Q&A webinar	Trainees experiencing error test of water meters

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, Yokohama Water Co., Ltd., Kyowa Engineering Consultants Co., Ltd., Yokohama Waterworks Bureau (YWWB)
Outline and Objectives	<p>Yokohama Waterworks Bureau (YWWB) has dispatched staff to Lilongwe, the capital city of Malawi, since June 2019 to support JICA Technical Cooperation Project "The Project for Strengthening the Capacity of Non-Revenue Water Reduction for Lilongwe Water Board (LiSCaP)".</p> <p>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.</p> <p>Contents of technical cooperation in JFY 2022:</p> <p>The long-term expert YWWB dispatched in June 2019 was replaced in April 2022.</p> <p>In June, a workshop was held for five water supply utilities nationwide in Malawi in order to expand the project results to other utilities. YWWB also provided the guidance about the implementation of the NRW Reduction Strategy.</p> <p>In September and January, YWWB accepted LWB staff and implemented the training course in Japan for supporting the project.</p> <p>In February, YWWB dispatched another staff to support the activities of the long-term expert. The staff made suggestions regarding asset management and pipe replacement.</p>
Target (Cooperator) Countries	Lilongwe Water Board(LWB) , Malawi

Photos



Field survey in water distribution area



Instruction about asset management

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
Outline and Objectives	<p>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 the further cooperation between the city governments. In order to contribute to human resources development and water business promotion for both the cities, YWWB and WASA-F signed a MoU on technical exchange in October 2019.</p> <p>From JFY 2022, YWWB strengthens the collaboration with JICA "the Project for Improvement of the Management Capacity of Water Supply Sector in Faisalabad" which YWC took part in and makes good use of the online seminar.</p> <p>Contents of MoU</p> <p>(1) Organizing an online seminar (once a year)</p> <p>(2) Introduction of products and technologies of the Yokohama Water Business Association (YWBA) member companies</p> <p>(3) Collaboration with JICA "the Project for Improvement of the Management Capacity of Water Supply Sector in Faisalabad"</p> <p>Contents of training program in JFY 2022:</p> <p>In August 25-26th, YWWB held an online seminar, which allowed Lahore, the capital of Punjab state, to join it.</p> <p>-The number of participants:49 (WASA-F 22, WASA-L 27)</p> <p>-Discussion themes: 1) Water Distribution Management , 2) Non-revenue Water Reduction, 3) Human Resources Development and 4) Manual/SOP Development</p> <p>- Business-matching with 2 member companies of Yokohama Water Business Association. (1 Pakistani companies also participated in this webinar.)</p>
Target (Cooperator) Countries	Water and Sanitation Agency Faisalabad (WASA-F) and Water and Sanitation Agency Lahore (WASA-L), Pakistan

Photos



Ceremony for conclusion of MoU (JFY2019)



Online seminar participants (JFY2022)

Name of Organization	Waterworks and Sewerage 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	May 21, 2018 - December 27, 2020 (Dispatch long-term expert / predecessor) November 14, 2020 - (Dispatch long-term expert / successor)
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 (NPNL), 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	Waterworks and Sewerage Bureau, City of Kawasaki
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Name of Activity	The Project for Improvement of Implementation Capacity of Underground Leakage Countermeasure in Makassar City - Towards Effective Use of Water Resources -
Implementation Period	Nov 1, 2022 - Oct 31, 2025
Main Organizer	JICA
Outline and Objectives	<p>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)</p> <p>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.</p> <p>Activities include the local dispatch of our technical staff (9 times) and training in Japan for Perumda Makassar (executives: 2 times, practitioners people: 3 times).</p>
Target (Cooperator) Countries	Indonesia/Perumda Makassar

Photos



Name of Organization	Public Enterprises Agency of Kanagawa Prefectural Government
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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	<p>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 counterpart'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.</p> <p>In FY2022, we invited two trainees in October for lectures and observations. Employees of Kanagawa Waterworks were also dispatched to the province in January 2023 to investigate the facilities and leakages in the supply area. In addition, we held online meetings regularly and shared information and challenges.</p> <p><u>Achievements in FY2022</u></p> <p>Acceptance of trainees: October 11-28, 2022 2 trainees (using Administrative Policy Program of Kanagawa Prefecture)</p> <p>Dispatch of employees: January 4-14, 2023 7 employees</p> <p>Others: Implementations of online meetings Monthly records of distribution analysis in the pilot area (April - March) Communication regarding distribution volume, network drawing, etc.</p>
Target (Cooperator) Countries	Lang Son PPC, Lang Son Water Supply and Drainage JSC (Viet Nam)

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Leakage investigation in Lang



Administrative Policy Program of

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	<p>At the request of JICA, Chiba Prefectural Public Enterprises Bureau(CPPEB) has dispatched 5 long-term and 25 short-term technical staffs to Timor-Leste since 2012 for the purpose of improve water supply systems though providing technical assistance.</p> <p>Currently, CPPEB has been participating in a technical cooperation project launched by JICA in 2021 and dispatching a technical staff 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.</p> <p>[FY2022 Dispatch of a expert] December 10, 2022 - December 9, 2024 a Long-term expert (1 staff)</p>
Target (Cooperator) Countries	Bee Timor-Leste



Situation of investigating a malfunctioned chemical dosing pump.



Situation of conducting a field survey of lower water pressure.

Name of 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 ~ December 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) .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.</p> <p>[FY2022 Dispatch experts,Acceptance Trainees] 8th May 2021 ~20th December 2023 (Long-term expert[Chief advisor]:1 staff) 18th August 2022 ~ 7th October 2022 (Short-term expert[Civil Engineering]:1 staff) 6th February 2023 ~ 25th March 2023 (Short-term expert[Civil Engineering]:1 staff) 1st February 2023 ~ 2nd February 2023 (Acceptance:8 trainees)</p> <p>[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</p>
Target (Cooperator) Countries	Laos / Department of Water Supply , Ministry of Public Works and Transport 、 Pilot WSSEs(Vientiane Capital , Luang Prabang Provincial , Khammouane Provincial) and Department of Public Works and Transport(DPWT) 、 other provinces WSSE and DPWT

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Name of Organization	Saitama City Waterworks Bureau
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Name of Activity	The Project for Improvement of Pipeline Management and Maintenance in Water Supply State Enterprises of Lao PDR
Implementation Period	June 2018 ~ March 2023
Main Organizer	JICA
Outline and Objectives	<p>This project is to contribute technical development for improvement about pipe construction management ,pipe construction standards, pipe selection and management toward to reduce water leakage through dispatch staff and trainee acceptance .</p> <p>[FY2022 Dispatch staffs, Acceptance trainees] Dispatch: 2 times(5 weeks), 6 staffs Acceptance:1 time(2 weeks), 4 trainees</p> <p>[FY2022 Activity] Holding a closing workshop jointly with the MaWaSU2 project annual reporting for the purpose of sharing the results of the project with related organizations. ※ Dispatch: 4 staffs</p> <p>Online support activity (Support for creating 4 guidelines: Guidelines of creating manual in WSSE for (1) Distribution pipe construction, (2) Service pipe installation, (3) Management of water supply materials, (4) Utilization of examination tool for checking water meter) ※7 times Participants:Vientiane Capital Water Supply State Enterprise(WSSE), Luang Prabang Provincial WSSE, Khammouane Provincial WSSE (61 person in total)</p>
Target (Cooperator) Countries	Laos / Department of Water Supply , Ministry of Public Works and Transport 、 Vientiane Capital WSSE, Luang Prabang Provincial WSSE, Khammouane Provincial WSSE

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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	<p>This project is implemented as a JICA Partnership Program.</p> <p>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.</p> <p><Activities in FY 2022> ○ Dispatch of engineers Baseline survey in Thailand and Laos (3 staffs each) January 8 - January 21</p>
Target (Cooperator) Countries	Thailand / Provincial Waterworks Authority (PWA) Lao PDR / Vientiane Capital Water Supply State Enterprise (NPNL)

Photos



Field survey (Thailand)



Field survey (Laos)



Discussions (Thailand)

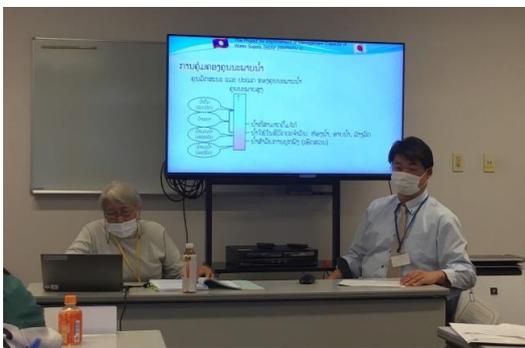


Discussions (Laos)

Name of Organization	Saitama Prefectural Public Enterprise Bureau
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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	<p><Outline> JICA web page https://www.jica.go.jp/project/english/laos/023/index.html</p> <p><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.</p> <p><Activities in FY 2022></p> <ul style="list-style-type: none"> ○ Participation in conference 2 staffs (December 12 - December 17) ○ Acceptance of Trainees 8 trainees (January 31)
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



Training in Japan



Annual report meeting in Laos

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)
Implementation Period	14 October ~ 18 November 2022
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 • Water Distribution Planning • Pipeline Design • Maintenance of water supply system • Site visits (Water Purification Plant, Pipeline Center etc.) • Public Relations • Water Meter Readings
Target (Cooperator) Countries	Egypt, Jordan, Palestine, South Africa, Bangladesh(2), Iraq(2), Philippines



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 ~ 28 December 2023
Main Organizer	Nagoya City Waterworks and Sewerage Bureau
Outline and Objectives	<p>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.</p> <p>The activities in FY2022 are as follows</p> <ul style="list-style-type: none"> • Second dispatch of experts (September 11 - September 25, 2022) 4 experts dispatched • First Training Course in Japan (October 13-November 3, 2022) 6 trainees accepted • Third dispatch of experts and corporate lecturers (January 22-February 2, 2023) 13 trainees
Target (Cooperator) Countries	Mexico City Waterworks and Sewerage Bureau(SACMEX) Mexico City Integrated Risk Management and Civil Protection Agency(SGIRPC)

Photos



Second Dispatch of Experts
Lecture on earthquake countermeasures



The 1st Training Course in Japan
Tour of emergency water supply facilities



Third dispatch of experts
Company Seminar

Name of Organization	Osaka Municipal Waterworks Bureau (OMWB)
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Name of Activity	Technical Exchange between SAWACO,DOWACO and OMWB
Implementation Period	December 4th-10th 2022
Main Organizer	Osaka Municipal Waterworks Bureau (OMWB)
Outline and Objectives	<p>In December 2009, 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 annually.</p> <p>In FY2022, we invited five trainees from SAWACO and three from DOWACO and held the technical exchange on the themes of "leakage improvement," "disaster/accident response," and "customer service", which is issues facing SAWACO and DOWACO.</p> <p>We had lively discussion about "Training methods for disaster/accident response," "Methods of providing guidance to contractors," and other topics during the Q&A session. In addition, private enterprises registered our overseas water business partner program introduced their products and technologies related the themes of the technical exchange this year. On the final day, SAWACO and DOWACO each gave a presentation on what they had learned through this technical exchange and what they would like to implement after returning to Vietnam.</p> <p>We will continue to exchange opinions on the issues facing SAWACO and DOWACO, and will contribute to solving those issues in cooperation with companies registered our overseas water business partner program.</p>
Target (Cooperator) Countries	Saigon Water Corporation (SAWACO), Dong Nai Water Supply Joint Stock Company (DOWACO) ,Vietnam

Photos



Tour of Disaster Stockpile Warehouse



Introduction of products using a demonstration vehicle by a private

Name of Organization	Osaka Municipal Waterworks Bureau (OMWB)
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Name of Activity	Field Survey for Water Supply Improvement in Jambi City
Implementation Period	November 6th-16th 2022
Main Organizer	Osaka Municipal Waterworks Bureau (OMWB)
Outline and Objectives	<p>In June 2022, Osaka Municipal Waterworks Bureau exchanged a letter of interest for waterworks improvement with Tirta Mayang, the water utility of Jambi City, Republic of Indonesia, in response to the request of technical assistance for the waterworks improvement.</p> <p>During the field survey in November 2022, a public-private partnership team including Osaka Water General Service Co., Ltd. and us confirmed on-site conditions in more detail, such as the operation and maintenance of water treatment plants and construction supervision methods of water supply facilities, and discussed needs and priority issues with staff of Tirta Mayang in order to formulate measures to improve their water supply. In addition, we visited the Directorate General of Human Settlements (PU) of the Ministry of Public Works of Indonesia, the Indonesian Waterworks Association (PERPAMSI), and the JICA Indonesia office to exchange views on cooperation for the improvement projects in Jambi City.</p> <p>In November 2022, we also applied to CLAIR (Council of Local Authorities for International Relations (CLAIR)) for the "Project for Supporting Capacity Improvement of Waterworks Project Management in Jambi City, Republic of Indonesia (Human Resource Development)" as a model project for promoting international cooperation by local authorities. The proposal was adopted in March 2023, and we are going to promote the activities to improve the water supply in Jambi City on this project.</p>
Target (Cooperator) Countries	Jambi Municipal Water Corporation (Tirta Mayang),Indonesia

Photos



Benteng Water Treatment Plant



Intake of Aurduri Water Treatment Plant

Name of Organization	Osaka Municipal Waterworks Bureau (OMWB)
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Name of Activity	JICA Knowledge Co-creation program "Maintenance and Management of Urban Water Supply System"
Implementation Period	January 10th to February 24th 2022
Main Organizer	JICA
Outline and Objectives	<p>Osaka Municipal Waterworks Bureau has implemented the training of "Group Training Course (Urban Waterworks Maintenance and Management)" established by JICA and has accepted many trainees since 1994. Since 2012, the training has been divided into two courses, for Water distribution and supply and for water quality and purification.</p> <p>In addition, since 2016, Osaka City, Kobe City, Kyoto City and Sakai City (since 2020) has 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.</p> <p>In 2022, due to the impact of Covid-19 outbreak, training was conducted online. After lectures using on-demand materials, each trainee prepared a report on issues facing his/her country and created and presented an action plan to address the issues based on Q&A sessions with the training instructors via online meetings and e-mail.</p>
Target (Cooperator) Countries	Laos, Nepal, East Timor and Pakistan

Photos



Online training

Name of Organization	Osaka Water Supply Authority
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Name of Activity	Tour of facilities by Osaka University and Royal Melbourne Institute of Technology (Murano Water Treatment Plant and Niwakubo Water Treatment Plant)
Implementation Period	July 4 to 6 2022
Main Organizer	Osaka University
Outline and Objectives	<p>Osaka University sponsors the "SMART WATER SUPPLY AND RESILIENT INFRASTRUCTURE IN THE KANSAI REGION OF JAPAN" program, a vocational integrated learning activity with Royal Melbourne Institute of Technology, and accepts international students. As part of the program, they visited the Osaka Regional Waterworks Enterprise to learn about and experience a water purification plant.</p> <p>July 4 to 5 Overview of the Osaka Water Supply Authority Overview of the Murano Water Treatment Plant Overview of the Water Quality Control Center Water quality testing experience Tour of Murano Water Treatment Plant Observation of filtration pond cleaning</p> <p>July 6 • Overview of Niwakubo WTP • Inspection of Niwakubo WTP</p>
Target (Cooperator) Countries	Australia:Royal Melbourne Institute of Technology University Japan:Osaka Univercity
Photos	

Name of Organization	Osaka Water Supply Authority
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Name of Activity	Inspection of water treatment technology by Seoul water and sewage utility (Murano Water Treatment Plant and Niwakubo Water Treatment Plant)
Implementation Period	30th November 2022
Main Organizer	Osaka Water Supply Authority
Outline and Objectives	<p>In recent years, there have been cases of chironomid larvae leaking from tap water in Seoul's waterworks, so the city inquired about the Osaka Regional Waterworks Corporation, which has expertise in chironomid control.</p> <p>A tour of the facilities and exchange of opinions was conducted to observe the operation and management technology of the water purification plant and wastewater treatment management technology.</p> <p>○Murano Water Treatment Plant</p> <ul style="list-style-type: none"> ・Overview of the Murano Water Treatment Plant ・Tour of the Murano Water Treatment Plant ・Tour of wastewater treatment facilities ・Exchange of opinions <p>○ Niwakubo Water Treatment Plant</p> <ul style="list-style-type: none"> ・ Advanced water purification operation ・ Water quality management in water purification ・ Operation of backwash ・ Management of microorganisms ・ Operation of wastewater treatment ・ Energy-saving measures such as reducing power costs, etc.
Target (Cooperator) Countries	Korea:Seoul Metropolitan Government Waterworks

Photos



Name of Organization	Osaka Water Supply Authority
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Name of Activity	The facility tour of the Murano Water Treatment Plant for United Nations Industrial Development Organization
Implementation Period	5th December 2022
Main Organizer	United Nations Industrial Development Organization
Outline and Objectives	<p>The United Nations Industrial Development Organization Tokyo Office is implementing an invitation program to Japan to promote investment and technology transfer to developing countries. Engineers from Cambodia, Sri Lanka, and Uzbekistan will be invited to Japan to learn about Japanese water purification technology.</p> <p>Contents:</p> <ul style="list-style-type: none"> •Overview of the Murano Water Treatment Plant •Tour of the Murano Water Treatment Plant •Exchange of opinions
Target (Cooperator) Countries	Cambodia, Sri Lanka, and Uzbekistan

Photos



Name of Organization	Kyoto City Water Supply and Sewerage 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) (A)"
Implementation Period	10 Jan - 24 Feb , 2023
Main Organizer	JICA Kansai
Outline and Objectives	<p>In collaboration with Osaka City and Nara City, we provided online training for 6 trainees.</p> <p>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.</p>
Target (Cooperator) Countries	Brazil, Laos, Nepal, Madagascar

Photos



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	2023年1月10日~2月9日
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 5 countries joined this program in 2022. Based on on-demand classes and Q&A session online with training instructors, participants made an Action Plan aiming to solve the problems each of their countries have.</p> <p>Main programs of the training course are as follows.</p> <ul style="list-style-type: none"> • Make and Report a Country Report • Training Program (on-demand class) • Make and Report an Action Plan • Q&A session
Target (Cooperator) Countries	Iraq, Zambia, Jamaica, Malawi, Rwanda

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	October 24 to November 29, 2022
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 87 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 •Waterworks Facilities Information Management System
Target (Cooperator) Countries	Bhutan,Ethiopia,Laos,Palestinian Authority,Rwanda,South Sudan [eleven participants in total]

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	Online program: January 24, 2023 – January 30, 2023 Course in Japan: February 1, 2023 - February 16, 2023
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, 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.</p> <p>Considering the spread of COVID-19, course program in fiscal year 2022 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.</p> <p>■ Activities</p> <ul style="list-style-type: none"> • Lectures: water supply in Fukuoka city; NRW management, water leakage prevention; design, construction and maintenance of distribution pipe; 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: piping and leakage repair/inspection at technical training center • Support: creating action plans
Target (Cooperator) Countries	Fiji (1 person), Honduras (1 person), Nicaragua (1 person), Palau (1 person), Paraguay (1 person), Solomon Islands (1 person), Timor-leste (1 person)

photos



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	20 October-29 November, 2022
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. This is our 55th time providing this program. The total number of participants are 659 from more than 100 countries and regions in the long history.</p> <p>This year, we implemented a hybrid format of online training and training in Japan (face-to-face) while taking measures against COVID-19.</p> <p>Main programs of the training course are as follows.</p> <ul style="list-style-type: none"> •Outline of Water Supply in Japan •Country Report Presentation •Water Leak Detection and Prevention •Jar Test (Optimization of Coagulation / Flocculation Process) •Pipe Laying Method •Visit to Gravity Flow Water Treatment Plant <p>【Reference】 http://www.jwwa.or.jp/english/en_04.html</p>
Target (Cooperator) Countries	CAMBODIA, MARSHALL ISLANDS, PERU, LEBANON, TIMOR-LESTE, RWANDA, LAOS (Total 11 participants and 2 observers)

Photos

