

Fiscal Year 2024 Activity Report

The activities of JSC outlined below are as stipulated in Article 4 of JSC's Term of References.

- (1) Networking
- (2) Information gathering
- (3) Knowledge dissemination and information sharing
- (4) Support to international donor organizations

JSC will report following the activities about fiscal year 2024 activity report.

1 . Networking

Cooperation with international organizations, creation of a network of sanitation-related organizations and bodies from each country.

1 - 1 Networking activities commissioned by the Ministry of Land, Infrastructure, Transport and Tourism (MLIT)

The following assessments were conducted for the work commissioned by the Ministry of Land, Infrastructure, Transport and Tourism, titled "Work to manage international conferences in the sewerage field for FY 2024" (execution period: 11th Apr 2024 to 14th Mar 2025; joint venture between JSC and MRI Research Associates, Inc.).

The Asian Wastewater Management Partnership (AWaP) Steering Committee provided the necessary operational support for activities including the consideration of issues to be addressed at international events such as the 5th Operation Committee of the Asia Wastewater Management Partnership (AWaP), intergovernmental conferences and technical seminars based on local conditions in the Southeast Asian region and 10th World Water Forum.

- 22nd July 2024: 6th intergovernmental conference and technical seminar between Japan and Cambodia in Phnom Penh, Cambodia
- 24th September 2024: 3rd Asia Wastewater Management Partnership (AWAP) General Meeting and site visit at Shibaura Wastewater Treatment Plant in Tokyo
- 26th November 2024: intergovernmental conference and technical seminar (including a site visit at Yen Xa wastewater treatment plant) between Japan and Vietnam in Hanoi, Vietnam

At the 10th World Water Forum held in Bali, Indonesia, held from May 18 to 25, 2024, JSC hosted a session in the thematic process, titled: "Toward realizing a recycling-oriented society through safe collection, transportation, and recycling of sewage and human waste sludge." In addition, a presentation slot in a session of the Regional Process was secured (Southeast Asia subregion),

and was given by Mr. Makoto Kudo from the Ministry of Land, Infrastructure, Transport and Tourism (at the time, Water Supply and Sewage International Promotion Officer), providing the latest information on sewerage systems in Japan.

Consideration on Measures to Promote Understanding of Policies and Plans for Sewerage Businesses

Based on discussions at multilateral conferences, intergovernmental conferences, technical seminars, etc. held both domestically and internationally, was organized the development of policies and plans related to sewerage development in each country, mainly in the Southeast Asian subregion (Vietnam, Cambodia, the Philippines, Thailand, Indonesia, and Bangladesh), the status of development of legal systems and technical standards and guidelines, the implementation status of sewerage development projects, and issues and needs related to sewerage development. Furthermore, based on the organized information, countermeasures were considered to promote understanding of sewerage systems, as well as topics to be covered at future intergovernmental conferences and technical seminars.

1 — 2 Networking with the Japan International Cooperation Agency (JICA)

On 29th August 2024, JICA's Global Environment Department (with Deputy Director General SHIBATA Kazunao and five of his colleagues) and JSC (with Director HATADA Masanori accompanied by seven JSC members) exchanged opinions on the following topics. First, JSC explained about (1) Implementation for JICA subject training, (2) Activities of Asia Wastewater Management Partnership and (3) Overseas Expansion of Johkasou. Next, JICA explained about strategy related to wastewater management (environmental quality cluster) under the JICA clean city initiative (JCCI).

In addition to these, based on the results of last year's field study by JSC in Telangana, India (legislation for the reuse of treated water to improve the management of decentralized treatment and alleviate water shortages), JSC proposed implementing a capacity building program for Indian stakeholders. In addition, opinions were exchanged regarding future international conferences, etc., and documentation was provided on Japan's experience with small-scale and decentralized wastewater management.

2. Information gathering

Creation of a sanitation database for the Asia-Pacific Region and execution of country assessments for sanitation improvement in each country of the region.

2 — 1 Participation at the 32nd Governing Council Meeting of the Asia-Pacific Water Forum

The 32nd Governing Council Meeting of the Asia-Pacific Water Forum was held at the United Nations Conference Centre in Bangkok, Thailand on 18 October 2024 and Dr. Pierre FLAMAND attended the Governing Council for JSC.

The meeting agenda was about 1. Network action plan from 2024 to 2027, 2. Latest information and insights from APWF member-nations and observer organizations, 3. Selection (Presentation) of the vice chairperson of the APWF Governing Council Meeting.

Dr. Pierre FLAMAND pointed out that while APWF's action plan extensively discusses the connections between water, energy, food, climate, and ecosystems, there is insufficient consideration of sanitation (environmental health), particularly sludge and wastewater management, and sanitation goals are far from being achieved for SDG 6. He expressed the opinion that sanitation needs to be higher a priority in the agenda.

2 — 2 Organization of sessions and collecting information at 10th World Water Forum

At the 10th World Water Forum held in Bali, Indonesia from 18th May 2024 to 25th May 2024, JSC secretariat sent two members on-site (Dr. FLAMAND Pierre and Mr. UEMATSU Kazuki) to host a session and collect information.

In T2. “Water for Humans and Nature” from the 6 topics of the thematic process, JSC selected “Access to water sanitation and hygiene (WASH) for all” from the 5 sub-thematic topics to organize the session T2D3 “Toward a circular economy transition through safe collection, treatment and resource recovery of wastewater and fecal sludge”. This session was organized in collaboration with two other organizations: ONAS (National Sanitation Office of Senegal) and SNV (Stichting Nederlandse Vrijwilligers).

From Japan this session was attended by Dr. EBIE Yoshitaka (Chief Senior Researcher, Waste Management Engineering Research Section, Material Cycles Division, National Institute for Environmental Studies), and Mr. NISHI Shu (Director, Japan Institute of Wastewater Engineering and Technology) who participated as presenter or panelists. The session was moderated by Dr. FLAMAND Pierre.

In addition, JSC secured a presentation slot in a session of the Regional Process titled: “Smart water management for resilience and inclusive water service”. Mr. KUDO Makoto – who was at the time Director for Overseas Projects of Water Supply and Sewerage of the Ministry of Land Infrastructure, Transport and Tourism – presented measures for flood control from sewerage

systems in Japan, circular economy in wastewater management and he introduced international promotion activities to improve wastewater management in Asia through AWaP.

Moreover, JSC members joined other sessions of interest and conducted information gathering related to sewerage and environmental sanitation. After the forum, Dr. FLAMAND Pierre and Mr. UEMATSU Kazuki made a report of the 10th World Water Forum and future trends of such forum at the 1st GCUS seminar held on 5th July 2024. About 30 people including public organizations and private companies attended this seminar in-person or online.

3 . Dissemination of knowledge and information sharing

Diffusion of sanitation knowledge and experiences from developed countries; organization of international seminars to exchange information and knowledge with developing countries.

3 — 1 Participation and role in Asia Focus Theme, Stockholm World Water Week

The Stockholm World Water Week 2024 was held from 25th to 29th August 2024 and it was themed “Bridging Borders: Water for a Peaceful and Sustainable Future”. This theme aimed at understanding the role of water in the world and how it could lead to deeper cooperation and understanding, innovative solutions and policy, as water transcends borders and is the key to a peaceful and sustainable future. This year, approximately 2,000 people from 198 countries and regions participated in person, and an additional 12,000 people participated online.

Dr. FLAMAND Pierre joined the water week to deepen cooperation with participants such as ADB, JICA, UNICEF and SNV at the venue. In addition, he networked with many other organizations with which JSC may collaborate in the future, and gathered the latest information on water and sanitation.

3 — 2 12th Workshop on Decentralized Wastewater Treatment in Asia

Continuing from previous years, the Ministry of the Environment Government of Japan (MOEJ) supported and hosted on 11th November 2024 the “12th International Workshop on Decentralized Wastewater Treatment in Asia” themed “Testing and evaluation system for decentralized wastewater treatment facilities” to share information and build networks among Asian countries, and promote the spread of decentralized wastewater treatment systems in Asia. From JSC, Dr. Shinhi KUMOKAWA (from the Japan Education Center of Environmental Sanitation, JECES; a member organization of JSC), Dr. Yurie SHIRAKAWA (JECES), Ms. Ayako Suzuki (JECES) participated at the event as a secretariat, while Dr. Pierre FLAMAND served as moderator.

The workshop began with an opening address by Mr. Masaki Numata (Director of the Johkasou Promotion Office, MOEJ), followed by a keynote speech by Dr. Yoshitaka Ebie (National Institute for Environmental Studies, Japan). 204 applications from 27 countries were registered

for participation, with 122 online participants from 17 countries. Representatives from six countries - Thailand, Indonesia, Japan, Vietnam, India, and China - gave presentations on performance evaluation tests of decentralized wastewater treatment facilities in their country. This was followed by a panel discussion on the theme of "Towards the appropriate dissemination of high-performance decentralized wastewater treatment facilities (ex: Johkasou) - Challenges and measures to overcome-"

4. Support to international aid organizations

Organization of training courses on sanitation, execution of assessments for projects, advice for the selection of appropriate technologies, and provision of experts to international donor organizations, such as ADB and JICA.

4 — 1 Preparatory Survey for the Project for Improvement of Decentralized Wastewater Management in India by Strengthening Cooperation with Bill & Melinda Gates Foundation (BMGF) / Asian Development Bank Institute (ADBI)

JSC, jointly with the Asian Development Bank Institute (ADBI) which has been designated as a knowledge hub for Citywide Inclusive Sanitation (CWIS) in Asia by the Bill & Melinda Gates Foundation (BMGF), has been implementing the Preparatory Survey for the Improvement of Decentralized Wastewater Management in India. The field survey was conducted in Hyderabad Metropolitan Region and Warangal City in Telangana State, India, in January 2024, and 4 working papers were prepared jointly by the JSC authors and the Administrative College of India (ACI) authors and have been published by ADBI, based on the results of the field survey. These papers are:

- (1) Wastewater Management and Wastewater Reuse in Hyderabad, India: comparison of the related regulations between Japan and India (published)
- (2) Regulation and monitoring of the design and installation of On-site wastewater treatment systems in India (to be published soon)
- (3) Progress of Fecal Sludge Management for Onsite Sanitation Systems and Onsite Wastewater Treatment Systems in Warangal City and Hyderabad Metropolitan Region, Telangana State, India (published)
- (4) Operation and Maintenance and Performance Monitoring of On-site Wastewater Treatment Systems in Japan -A Proposal for India- (published)

This preparatory study aimed at supporting India's efforts to improve decentralized wastewater management and promote water reuse, particularly in the commercial and institutional buildings located in the periphery areas of many Indian cities where sewerage systems are usually not fully developed. This preparatory study also aimed at paving the way

for potential future support from JICA and ADBI. The JSC study team was composed of 6 JSC members and Mr. Takashi SAKAKIBARA from Yachiyo Engineering Co. Ltd. The study team was led by Mr. Kazushi HASHIMOTO, ADBI Consultant & Advisor to JSC. The study cost was born by ADBI.

Regarding the study (1), it was confirmed that the wastewater treatment plant (20,000 m³ per day using a membrane treatment system), which was built under a Japan's ODA loan as the "Hussain Sagar Lake and Catchment Area Improvement Project", is being operated and maintained properly and is contributing to the improvement of the water quality of the Hussain Sagar Lake situated in the very center of the city.

4 — 2 Support of the Japan-Brazil Joint Seminar on Decentralized Wastewater Treatment, organized by JICA Brazil Office

On 26th February 2025, the JICA Brazil Office hosted the "Japan-Brazil Joint Seminar on Decentralized Wastewater Treatment" (online conference). The purpose of the seminar was to introduce the Japanese johkasou system to those involved in Brazilian wastewater treatment, promote on-site wastewater treatment in Brazil, and the introduction of the Japanese johkasou to Brazil. More than 300 people participated in the seminar, including federal and state government officials and organizations involved in wastewater management in Brazil, as well as water and sewerage operators. At the seminar, Dr. KUMOKAWA of JECES (Japan Education Center of Environmental Sanitation) gave a lecture on the Japanese johkasou system and advice on the points to consider when introducing johkasou in Brazil. The JICA Brazil Office plans to hold additional events to introduce johkasou to those involved in Brazilian wastewater treatment, and to consider projects that JICA Brazil can support in order to provide johkasou business opportunities between Japan and Brazil.

5 . Other activities

5 — 1 Participation at ISO/TC224/WG8 (On-site Domestic Wastewater Management by using low-technology) Meeting

On January 8, 2025, a meeting of ISO/TC224/WG8 was held in Nairobi, Kenya, which was attended by Dr. FLAMAND and Dr. KUMOKAWA. At this meeting, the comments provided by the participating member countries on ISO/DIS (Draft International Standard) 24521 were discussed, and it was confirmed that this document would be registered as FDIS (Final Draft International Standard). In addition, the WG 8 members discussed and agreed on the creation of a new ISO standard on "Principles for planning, design, manufacturing, construction and installation of on-site domestic wastewater systems".

5 — 2 Participation as expert at 10 and 11 ISO/TC224 WG10 (Flushable Products) Meetings

This two-day online meeting attended for JSC by Dr. Flamand was held following the negative ballot result of ISO 18671 for FDIS (Final Draft International Standard) as over 25% of the member countries voted in disfavor of upgrading ISO 18671 and therefore this document becoming an international standard. During the meetings the received comments were reviewed and several decisions were made to continue the work. To be able to do so, one of the main proposals made by the WG 10 Secretariat was to change the status of the document to ISO TS (Technical Specification). In addition, the title has been changed to *“Test methodologies for assessing wet wipes and moist toilet tissue compatibility with the wastewater collection and treatment systems, and appropriate labelling”*, the scope was limited to wet wipes and moist toilet tissue (with new definitions provided) and, regarding labelling, the flushable symbol was removed from the document, which now only includes the “Do Not Flush” symbol. Japanese members pushed with more or less success for the use of a stricter language to prevent the supply in the country of product that has been approved in other countries through a less stringent methodology than the one used in Japan, risking causing blockages in the public sewerage system. To reach consensus, understand the areas of disagreement and solve them, the ISO/TC 224 Secretariat and WG 10 Chair agreed to launch an online consultation prior to the WG 10 Meeting in Toronto at the end of June with the aim of discussing the received comments and solving the disagreements at the Toronto meeting. Then, after and this meeting, a DTS ballot will be launched.

5 – 3 Participation as liaison for TC 224 at ISO PC 305 (Sustainable non-sewered sanitation systems) Meetings

The purpose of this standard is to promote the development and installation of non-sewer sanitation systems (NSSS) when other systems are unavailable or impractical, to ensure the health and safety of people, and to protect the environment.

ISO/TC 224 (Drinking water, wastewater and stormwater systems and services) appointed Dr. Pierre FLAMAND as liaison to join the meetings of PC 305. This meeting, held in Nantes, France, from 15th April 2024 to 19th April 2024, was the first that Dr. FLAMAND could attend after his nomination as liaison to TC 224. In addition to JSC, TOTO Ltd. joined the meeting for Japan. Differently to other ISO meetings, many of the participants were from developing countries, mainly Africans countries, thanks to the funding of the Bill & Melinda Gates Foundation.

Following the meeting in France, Dr. Flamand was appointed as member of the Domestic Deliberation Committee by the Japan Construction Material & Housing Equipment Industries Federation, which is operating this committee in Japan gathering the country's members of ISO/PC 305. From this appointment, Dr. FLAMAND attended the last PC 305 meeting held in Beijing, China from 4th January 2025 to 10th January 2025 as an expert for Japan and liaison to

ISO/TC 224.

5-4 Lectures and Support to JICA Thematic Training Course

5-4-1 JICA sewerage management basic

JICA thematic training course on sewerage management was held from 24th September 2024 to 31st October 2024. Seven participants from seven countries came to Japan and joined the training course.

The Japan Sewage Works Agency provided large support to the training course through lectures and practices on sewerage planning and wastewater treatment. In addition to this, Mr. HASHIMOTO, Mr. MORITA, Dr. KUMOKAWA and Dr. FLAMAND also conducted lectures. Additionally, Mr. UEMATSU from the Sewerage Business Management Centre provided a lecture using JSC's own training materials on local sewerage development support and human resource development in Japan.

In this training course, the participants moved and stayed not only in the Tokyo Metropolitan area, but also in Kyushu and Tohoku regions in order to visit local sewerage, relevant facilities and factories. SBMC, which is one of JSC member organizations, also provided chance to the participants to enjoy the Japanese local culture. In addition to the lectures and site visits, JICA and JSC held the “GCUS company seminar”, which provided an opportunity for 6 GCUS member companies to introduce Japan’s sewerage technologies mainly from the WOW TO JAPAN project. After the seminar, an opinion exchange meeting was held to provide business matching opportunities.

5-4-2 JICA Thematic Training Course (Introduction and dissemination of decentralized sewage treatment systems)

This training course was held from 20th June 2024 to 12th July 2024 at JICA Kyushu Center with 8 trainees from 7 countries. Lectures were provided by Mr. HASHIMOTO, Dr. FLAMAND and Dr. KUMOKAWA, who also advised the trainees during their job report and action plan presentations.

Two trainees from Brazil participated in the seminar. JSC helped both of them to link with Japanese Johkasou manufacturers and encouraged them to consider the introduction of Johkasou in Brazil. Their action plan was presented at the “Japan-Brazil Joint Seminar on Decentralized Wastewater Treatment” organized by the JICA Brazil Office in February 2025.