

DOWAS NEWS

2025

Vol.28 No.2



Announcement of the 29th DOWAS National Conference, DOW 2025 Kumejima Conference
DOWAS National Conference Executive Committee Chair TOBARU Hideo… 1

DOWAS Annual General Meeting and Lecture Report - FY2025
DOWAS Secretary General IMADA Chiaki…10



海洋深層水利用学会

Announcement of the 29th DOWAS National Conference, DOW 2025 Kumejima Conference

DOWAS National Conference
Executive Committee Chair TOBARU Hideo

The 29th DOWAS National Conference, DOW 2025 Kumejima Conference, will be held on the following dates, so please participate.

The conference will include general lectures and tours. To apply to participate in the conference or to make a presentation, please follow the instructions below and apply through the [“Participation Application Form”](#) on the DOWAS website. (The form is in Japanese, so please use google translate or similar).

1. Program

November 6, 2025 (Thursday)

- 9 : 00 ~ 9 : 30 Registration
- 9 : 30 ~ 10 : 00 Opening Remarks
- 10 : 00 ~ 12 : 00 Research Presentations
- 12 : 00 ~ 13 : 00 Lunch
- 13 : 00 ~ 16 : 30 Research Presentations
- 18 : 30 ~ 20 : 30 Information Exchange Meeting

November 7, 2025 (Friday)

- 9 : 30 ~ 11 : 20 Research Presentations
- 11 : 20 ~ 11 : 30 Closing Remarks, etc.
- 12 : 00 ~ 13 : 00 Lunch
- 13 : 15 ~ 16 : 30 Tour (Disband on site, transportation to airport etc, provided)
- 13 : 15 ~ 15 : 30 On-site lessons for elementary school students
- 17 : 00 ~ 19 : 00 “Welcome to Kumejima”/ Case Study for DOW Utilization
and National User’s Meeting

November 8, 2025 (Saturday)

- 9 : 00 ~ 12 : 00 Optional Island Tour (planning)

DOWAS NEWS 2025 Vol.28 No.2
Announcement of the 29th DOWAS National Conference,
DOW 2025 Kumejima Conference
DOWAS National Conference Executive Committee Chair TOBARU Hideo

※Please note that presentations are limited to 15 minutes per topic (including Q&A).

※The program content and time are subject to change. Details and the latest information will be posted to the DOWAS website from time to time. If you are planning to participate, please check the latest information.

2. Venue

Gushikawa Rural Environment Improvement Center
730 Nakadomari, Kumejima, Okinawa 901-3124 Japan (+81 98-985-2444)

3. Method

The event will be hybrid (onsite and web).

Please note that the participation fee is the same for onsite and online participants. In addition, we will distribute the journal (special issue) in advance to everyone, including those participating online, so please do not omit the address column on the application form. Please note that we cannot accommodate requests made just before the event.

4. Participation Fee

Members: 4,000JPY Non-Members: 5,000JPY Students: 1,000JPY

(including the cost of abstract submission)

Transfer Bank Details : Sumitomo Mitsui Banking Corporation, Saga Branch

Account Number : Ordinary 0 6 4 2 0 6 6

Account Name : 海洋深層水利用学会事務局

(かいようしんそうすいりょうがつかいじむきょく)

Correspondence Column : 29th National Conference Participation Fee Name●● ●●

※In the transfer request column, please write only the individual's name (applicant) and abbreviation of affiliated organization.
(Example)

DOW・Kaitei

※You will be asked to present the transfer slip or transaction slip (if using an ATM), at the registration on the day of the conference, so please keep it and bring it to the venue.

※If you register on the day, the participation fee will be 5,000JPY for both members and non-members (the fee will not change for students). Participants from Korea and Taiwan will be able to pay in Japanese yen, including any outstanding balance when they participate in the national conference, so there is no need to transfer from abroad in advance.

DOWAS NEWS 2025 Vol.28 No.2
Announcement of the 29th DOWAS National Conference,
DOW 2025 Kumejima Conference
DOWAS National Conference Executive Committee Chair TOBARU Hideo

※Please note that as a general rule participation fees will not be refunded once paid, however, for those who have transferred the participation fee in advance but are unable to attend on the day, we will mail only the journal containing published abstracts at a later date.

5. Application Process to Attend

How to Apply: Please apply through the [Application Form](#) on the website. If you are unable to apply through the form, please apply by phone to the “conference executive secretariat • Shimizu (090-4924-3922)”

Deadlines : Participation Application Deadline October 31, 2025 (Friday)
Presentation Application Deadline September 19, 2025 (Friday)
Abstract Submission Deadline September 20, 2025 (Tuesday- Firm)
※Please submit abstracts in electronic format (Word file)
PDF data will not be accepted.

Other : Presentations will be 15 minutes long (including Q&A). The number of presentations will be limited to around 25. Any applications exceeding 25 will be offered as poster presentations. Applications will be accepted on a first-come, first-served basis, so please apply early.

Also, please note that presentations (including web presentations) are limited to members. However, non-member presentations can be accepted in the poster session if at least one of the applicants (co-researchers) is a member. Non-members wishing to give a presentation can register as a member before applying, which will also give access to the member rate. To apply for membership, please visit the DOWAS website under Membership Information.

For additional details contact us below:

Executive Committee Secretariat : Shimizu Corporation Engineering
Division, New Energy Engineering Division, SHIMIZU Katsunori
2-16-1 Kyobashi, Chuo-ku, Tokyo 104-8370
Phone +81 3-3561-4327
FAX +81 3-3561-8675
Email katsunori.shimizu@shimz.co.jp

DOWAS NEWS 2025 Vol.28 No.2
Announcement of the 29th DOWAS National Conference,
DOW 2025 Kumejima Conference
DOWAS National Conference Executive Committee Chair TOBARU Hideo

6. Abstract Guidelines (presentation and poster)

- Abstracts should be in English or Japanese within one (1) A4 size page.
- The submitted abstract will be used for printing as is, so please send it in an electronic data format that is as easy to read as possible. A simple review will be conducted to correct typos and omissions. ([Sample Abstracts](#))
- Use A4-size paper in portrait orientation, leaving 25mm margins.
- The order of writing should be title, presenter's name, and main text. Details are as follows.

First Line : Title→Font: MS Gothic*12point, centered

Second Line : Presenter's Name→ Font: MS Mincho*10point, centered. Presenters should put a circle “○” to the left side of their name. For affiliation, write the company name in parentheses after the name. In the case of co-authors, separate them with a “・” mark for the same affiliation or “、” for different affiliations. Two lines are acceptable.

Third Line : In principle, leave blank

Fourth Line on : Main text

- The main text should describe the purpose, method, results, etc. (including figures and tables). See example.
- Submitted abstracts must arrive by Tuesday, September 30, 2025 to the Executive Committee Secretariat (This applies to mailed submissions).
- In the past, there have been cases where submitted content has violated intellectual property rights. Please make arrangements with the IP owner prior to submitting and presenting. Please note that DOWAS, the Conference Executive Committee Secretariat and DOWAS Secretariat cannot take responsibility.
- For poster presentation, the organizers will prepare the display panel (one A1 size portrait), thumb tacks, and tape. In principal, the presenter is responsible for posting and removing the poster.

7. Guidelines for Oreal Presentations

- Each presentation will be 15 minutes per topic (including Q&A)
- Presentations should be in Japanese or English.
- Please notify us in advance if you plan to use video.

DOWAS NEWS 2025 Vol.28 No.2
Announcement of the 29th DOWAS National Conference,
DOW 2025 Kumejima Conference
DOWAS National Conference Executive Committee Chair TOBARU Hideo

8. About Creating and Submitting Power Point Data

- Prior submission to the secretariat is not required, but each presenter should submit data to the projector operator at the venue during the break on the day of the presentation to check the look. This does not apply if the presenter wishes to operate the projector. In addition, only a projector will be used for the presentation, so please create materials that can be seen clearly, even from the back of the venue.

9. Information Exchange Meeting

Date	November 6, 2025 (Thursday) 18 : 30~20 : 30
Fee	5,500JPY (Prepayment Required) ※Students can participate for 2,000JPY
Venue	Kumejima EEF Beach Hotel (548 Janado, Kumejima)
Application	Please apply through the homepage Application Form . Please apply and pay in advance.

Please follow the same procedure as applying for presenting (pre application and pre-payment required).

Transportation	There is a bus service from the presentation venue to the information exchange venue, but please note there is no bus afterward (we recommend staying at EEF Beach Hotel or nearby).
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10. Reservations for Lunch

There are a limited number of restaurants around the venue where you can eat.
We recommend that you bring your own lunch or make a reservation in advance.

Luch Cost	1,000JPY (1 lunchbox and drink)
Application	Apply through the homepage Application Form . Please fill in “Yes : ○” or “No : ×” for each day. <u>Payment is required at the reception on the morning of the day, but please apply in advance due to necessary arrangements. (applications will not be accepted on the day)</u>

11. Tour

Date : November 7, 2025 (Friday) 13:00~16:30

Meeting Place : Presentation Venue

Route : Under Adjustment (please check the website)

Fee : Free

Application : Please apply through the website [Application Form](#).

Other: After the tour you will be transported to the airport or presentation venue.

12. Related Events

- (1)Welcome to Kumejima / DOW Use Case Sharing Meeting (co-hosted by the Utilization Promotion Committee)

Date : November 7, 2025 (Friday) 17 : 00~19 : 00

Venue : EEf Information Plaza(160-57 Higa, Kumejima)

Application: Please apply through the website [Application Form](#). Space is limited, advanced application is required.

※Please refer to the DOWAS website for event details, fees, etc.

- (2)Onsite Lessons for Elementary and Junior High School Students

(sponsored by the Education Promotion Committee)

Date : November 7, 2025 (Friday) 13 : 30~15 : 10

Venue : Misaki Elementary School (103 Maja, Kumejima)

Participation : Apply through the homepage [Application Form](#).

If you are interested in watching, please apply when submitting your application. Details will be arranged in conjunction with item “11. Tour”

13. Accommodation and Transportation

Accommodation and transportation (flights) may be crowded, so please make your own reservations early via the internet. In particular, accommodation and transportation around the conference venue are very limited. Please consider using a rental car, etc.

<Conference Secretariat>

29th DOWAS National Conference Executive Committee Secretariat

Shimizu Corporation Engineering Division New Energy Engineering Division

Secretariat SHIMIZU Katsunori (Mobile +81 90-4924-3922)

E-mail : katsunori.shimizu@shimz.co.jp

DOWAS NEWS 2025 Vol.28 No.2
Announcement of the 29th DOWAS National Conference,
DOW 2025 Kumejima Conference
DOWAS National Conference Executive Committee Chair TOBARU Hideo

<投稿原稿例>

S0-1. 台湾における海洋深層水の資源利用の現状

○高橋 正征

(台湾国立中山大学海洋科学学院アジア・太平洋海洋研究センター)

1. はじめに

1970 年始めの第一次石油ショックを受け、世界の国々は石油に代わるエネルギー資源の探索を始め、その一つとして深層と表層の温度差を利用した海洋温度差発電 (OTEC) が注目された。台湾は熱帯・亜熱帯に位置し、東海岸が急峻で OTEC に適しているので、1989 年の暮れにフィンランド、フランス、フランス領ポリネシア、イタリア、日本、オランダ、スウェーデン、台湾、英国、米国の 50 人以上の関係者の支援を得て、国際海洋温度差発電・海洋深層水協会 (IOA, International OTEC/DOWA Association、当初は OTEC だけで後から DOWA が加わった) の NPO 法人がつくられ、1990 年春から 2002 年冬まで 13 年間にわたって 13 巻 (年 4 回で合計 52 号) の IOA Newsletter が発行され、同時に、しばしば国際会議を開いて事業化のための啓蒙活動が行なわれた。

これとは別に、1990 年代後半から日本で盛んになった海洋深層水の多様な利活用に刺激され、台湾での海洋深層水の関心が高まり、台湾政府は 2004 年始めに工業技術研究院東京事務所から日本からの専門家派遣を要請し、たまたま私がそれを受けることになった。同年 5 月に訪台し、中央と地方の両政府・研究機関・大学・企業の関係者と会って関心を聞いて、提案をまとめ 10 月に再訪して説明した。

2. 台湾の海洋深層水資源利用の現状

私の提案を参考に、2005-07 年にかけて花蓮港から七星潭に至る海岸線に沿った所に、

南側の花蓮港近くには台湾肥料の工場跡地を利用して台湾海洋深層水公司、その北側には光隆生科技公司、さらに北側に東潤水資源公司といった民間企業がそれぞれ 5~10km の間隔を置いて海洋深層水の取水施設と工場や水産生物養殖施設などを建設した。それぞれの会社は、いずれも日本の影響を大きく受け、瓶詰め飲料水、海洋深層水塩、苦汁、化粧水、酒などを生産して国内と一部は中国向けに販売を開始した。東潤ではサケ、マスや海藻類の養殖も始めた。

3. 台湾の海洋深層水資源利用の課題

一方、台湾政府は花蓮から 100 数十 km 南の台東県内に国が支援する海洋深層水の取水・研究・事業利用分水施設の建設を決めた。一つは水産試験場の分室として、台東市の海側で、水深約 610m から日量 4,000 トンの海洋深層水を揚水し、重要な水産資源生物の遺伝子資源保存を主な目的にし、その他農業利用など海洋深層水の様々な資源性の利用を目指している。もう一つは水利署の発注で、台東市の南の知本川南側で、水深約 700m から日量 12,000 トンの海洋深層水を揚水し、冷熱エネルギーを始めとした多様な資源性の多段利用を目指している。二つの施設の工事は 2009 年に始まり、2011 年には完成の予定であったが、いずれも海洋深層水の取水管 (外径 50cm の硬質ポリエチレン管) の敷設で、特に、浅海部でのトンネル (水産試験場) とトレンチ (水利署) の工事が難航している。

S0-1.Utilization of deep ocean water resources in Taiwan

○Masayuki Takahashi

(Asia-Pacific Ocean Research Center, College of Marine Sciences, Sun Yat-sen University,
Taiwan)

1. Introduction

Resources of deep ocean water (DOW) was seriously concerned in Taiwan as one of promising ocean energy such as ocean thermal conversion in the late 1980s, and the headquarter of International OTEC/DOWA Association (IOA, NPO organization) was established in 1989 in Taiwan with supports of more than 50 professionals from Finland, France, French Polynesia, Italy, Japan, the Netherlands, Sweden, Taiwan, the United Kingdom, and the United States of America which stimulated greatly by publishing excellent IOA newsletters from 1990 to 2009 as well as meetings.

Taiwan government started to consider possible utilization of various DOW resources which was pushed by public interests stimulated by activities in Japan. I was invited to Taiwan in May 2004 as an advisor by the Industrial Technology Research Institute, and gave a DOW resource utilization plan for Taiwan in October 2004 after discussions with people belonging to the federal and provincial governments, universities, research institute, and industries.

2. Current activities of DOW resource utilizations in Taiwan

After my suggestions, three private companies, East Biotch Co. Ltd, Kung Long Biotch Co. Ltd., and Taiwan Yes Deep Ocean

Water Co. Ltd.. installed their own pipes independently along the coast from Hualien Port (south end) to Qixingtan (north end) about 5-10km distance each other in 2005-2007. Each company produces bottled water, salt, minerals, cosmetics and alcohols equally under strong influence by Japanese activities. East Biotch also produces aquaculture products such as trout, salmon and some seaweeds.

3. Current problems of DOW resource utilizations in Taiwan

The federal government decided to construct 2 research institutions on DOW research and technology development in Taitung, about just over 100km south of Hualien; one for fisheries and agriculture agency for maintaining genes of important species for fisheries using 4,000tons of DOW per day from ca610m depth and the other for energy utilizations using 12,000tons per day from ca700m. Although construction is scheduled to be completed within 2011 after starting March in 2009, both facilities have faced to difficulties to install the pipes for DOW.

DOWAS NEWS 2025 Vol.28 No.2
Announcement of the 29th DOWAS National Conference,
DOW 2025 Kumejima Conference
DOWAS National Conference Executive Committee Chair TOBARU Hideo

- 1) In the case of joint authors, they should be joined by “•” and a circle “○” should be placed to the left of the speaker’s name.
- 2) (Affiliation) should be written in parentheses after the name.
- 3) Please be sure to fill in your telephone number and email address as there are procedures to be completed after the application.
- 4) The organizers will provide exhibition panels (A1 size), thumb tacks and tape.
- 5) As a general rule, exhibitors are responsible for displaying and removing exhibits.

DOWAS Annual General Meeting and Lecture Report – FY2025**DOWAS Secretary General IMADA Chiaki****【Annual General Meeting】****【Date】** May 21, 2025 (Wednesday) 15:15-16:15**【Venue】** Tokyo University of Marine Science and Technology, Shinagawa Campus, Rakusui Kaikan Large Conference Room and online (zoom) hybrid event.**【Materials】** Agenda for the 2025 DOWAS Annual General Meeting (20 pages with 21-34 pages of appendix)**【Agenda】****1. 2024 Operations Report**

The Secretariat and each committee reported on the operations in 2024 based on pages 3-11 of the agenda.

2. FY2024 Financial Report

The secretariat explained the 2024 financial balance based on page 12 of the agenda.

3. FY2024 Audit Report

Accounting Auditor Hinatano (read by Chair Otsuka) reported that an audit was conducted on March 14, 2025, and that the Association's accounting was found to have been handled appropriately, based on page 13 of the agenda.

4. FY 2025 Operation Plan

The Secretariat and each committee explained the 2025 plan based on pages 14-18 of the agenda, which was approved.

5. FY2025 Budget

The Secretariat explained the proposed 2025 budget based on page 19 of the agenda and it was approved as proposed.

6. Other

The following items ①~④ were explained based on page 20 of the agenda, and they were approved as proposed.

① About establishment of the “young people’s association”

② About the proposed addition and partial amendment of the rules (clarification of student members and revision of membership fees).

③ About the proposed detailed rules regarding the participation fee for information exchange meetings for student members.

- ④ About the proposed amendment of the rules regarding “members” belonging to institutional members.

※For the meeting materials, please refer to the DOWAS website.

【Lecture】

Time : 16:30~17:15

Venue : Tokyo University of Marine Science and Technology , Shinagawa Campus, Rakusui Kaikan Large Conference Room and online (zoom) hybrid event.

Lecture Title :

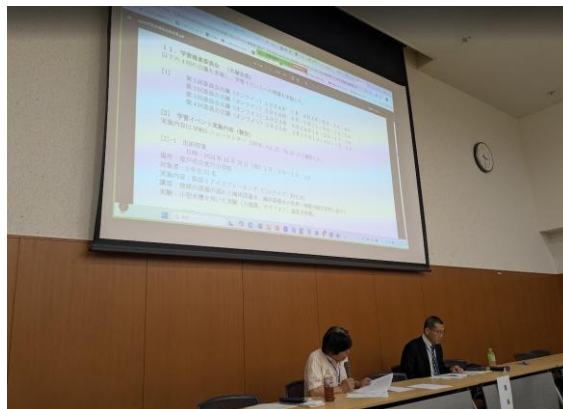
“The history of Attention to Deep Ocean Water as a Resource and the Current Situation in the World”

Speaker : Professor TAKAHASHI Masayuki (Professor Emeritus of the University of Tokyo, Professor Emeritus of Kochi University, Japan Science Association (Public Interest Incorporated Foundation), and Japan Fisheries Resource Conservation Association (Public Interest Incorporated Foundation))

【Participation Status】 17 people participated in the 2025 general meeting and lecture at the local venue with 22 people participating online and 24 proxy forms submitted. As a result, the general meeting was held with a total of 63 participants. At the general meeting, Chair Otsuka was elected as the moderator and the 2024 activity and budget results, as well as the 2025 activity and budget proposals were consulted and approved by the attendees. We would like to express our sincere gratitude to all members who took time out of their busy schedules to attend this general meeting and for their cooperation in running the meeting

【About the Lecture】

This year, the lecture was given by Professor TAKAHASHI Masayuki (Professor Emeritus of the University of Tokyo, Professor Emeritus of Kochi University, Japan Science Association, and Japan Fisheries Resource Conservation Association), who gave a lecture titled “The history of Attention to Deep Ocean Water as a Resource and the Current Situation in the World.” Professor Takahashi spoke extensively about recent efforts to utilize DOWA overseas, taking into account the historical background to date and the expected future utilization. We would like to express our sincere gratitude to Professor Takahashi for taking time out of his busy schedule to give us a lecture.



DOWAS News 2025 Vol.28 No.2

DOWAS Annual General Meeting and Lecture Report – FY2025

DOWAS Secretary General IMADA Chiaki

