

DOWAS NEWS

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A Hope Alive in Palau — A Journey Weaving Deep Ocean Water into the Future

DOWAS Secretary General IMADA Chiaki... 1



Deep Ocean Water Applications Society

A Hope Alive in Palau — A Journey Weaving Deep Ocean Water into the Future**DOWAS Secretary General IMADA Chiaki****Palau's Industry and the Potential of Deep Ocean Water**

Palau, a Southern Island. This country is surrounded by the deep blue sea, with tourism and fishing as main industries. It faces the challenge of only having a food self-sufficiency rate of 10-15%. In the midst of this, deep ocean water is attracting attention. Palau plans to experimentally extract deep ocean water, focusing on the characteristics of deep ocean water, such as its potential as a source of useful microorganisms, its low temperature, cleanliness, and richness in minerals, which can be used in agriculture, aquaculture, and even development of renewable energy. JICA (Japan International Cooperation Agency) is promoting a project to utilize this deep ocean water, and is positioning Palau as a destination for expansion of the “Kumejima Model,” that has proven effective in Kumejima, Okinawa.



Photo 1 Candidate Site for Palau Deep Ocean Water Intake

From January 24 to 29, 2025, a group of about a dozen people including faculty members from Saga University, Ritsumeikan Asia Pacific University, the University of Tokyo, JICA staff, and Kumejima Town Officials visited Palau.



Photo 2 Palau Survey Participants. The author is the second from the right in the front row.

Talking about Palau's Future with President Whipps

I met with President Whipps at the Presidential Offices. We exchanged frank and positive opinions, such as wanting to place deep ocean water at the center of Palau's future and industrial development.



Photo 3 President Whipps and Kumejima Town Deputy Mayor Nakamura

Afterwards, we visited the supermarket run by President Whipps' family. It was an opportunity to see firsthand the challenges of distribution and logistics. The food self-sufficiency rate is low, and fresh food is imported by ship, which causes a loss of freshness and is expensive.

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Photo 4 Visit to the President's Supermarket



Photo 5 Discolored Lettuce. American-grown lettuce delivered by sea in three weeks.



Photo 6 Frozen Ground Beef. Packaged like Sausage

Marine Environment Survey

In the afternoon, we conducted a biological survey along the coastline of Palau. We surveyed wild oysters, seaweed, water quality, and coastal plants. The wild oysters were a size smaller than the oysters sold in Japan and appeared to be a different species.

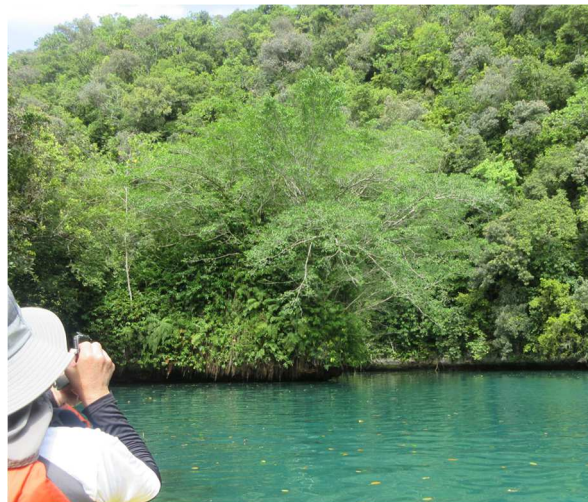


Photo 7 Coastal Biological Survey

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Photo 8 Wild Oysters

A Proposed Site for Deep Ocean Water Use Melekeok State

We met with Governor Polloi in Melekeok State, as proposed site for deep ocean water use. We affirmed the importance of cooperation at the regional level.



Photo 9 Meeting with Governor Polloi

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In the afternoon, we visited the Taiwan Technical Mission Farm. Not only do they grow a variety of tropical fruits and vegetables, but they also engage in a wide range of activities, including human resource development, recycling-based agriculture, reducing environmental impact, food education in schools, and agritourism.



Photo 10 Taiwan Technical Mission Farm Tour

Visit to Palau Community College

On the 28th we visited PCC (Palau Community College), Palau's only higher education institution, and met with Vice President Chris Kitalong. Originating from Japan's South Seas Bureau, this institution of learning covers a wide range of fields from natural science to tourism, and is also actively engaged in Japanese language education and inter-university collaboration. We toured the microorganism laboratory and the microalgae cultivation facility.



Photo 11 Palau Survey Participants meet with PCC Vice President Chris



Photo 12 Visit to the College Laboratory

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A View of Local Industry and Beer

To conclude the visit, we visited Palau's only craft beer brewery, Red Rooster, where we felt the intersection between tourism and industry. The brewery staff were very interested when we explained that adding a small amount of deep ocean water to yeast promotes fermentation, and that there is local beer in Japan that uses deep ocean water. They also seemed interested in using yeast derived from deep ocean water. Currently, they only make beer, but in the future, they would like to try wine production, etc.



Photo 13 Inside Red Rooster Beer Brewery

During this visit, it was impressive to see how much the local people expect from deep ocean water, and how positive they are about using it industrially. I felt happy that the knowledge of deep ocean water cultivated in Japan will help the development of Palau.

Information on Access to Palau (as of February 2025)

Currently there are no direct flights from Japan. This time the author flew via Guam.

- **Via Guam (United Airlines)** : Fly to Guam from Narita, Nagoya, Kansai, Fukuoka, etc. then fly from there to Palau. The total flight time including transfers is 7~13 hours.
- **Via Taipei (China Airlines)** : From Narita to Palau via Taipei. The flight time is 8-12 hours, and you may need to stay overnight.

We look forward to the resumption of direct flights, but even so, the opportunity to see that beautiful ocean was well worth the effort of the journey.