# Formation of a Consortium to Promote and Expand JCM Credits Using Alternate Wetting and Drying (AWD) Techniques

October 23, 2025
Osaka Gas Co., Ltd.

Osaka Gas Co., Ltd. (Representative Director and President: Masataka Fujiwara; hereinafter, “Osaka Gas”) has formed the Paddy Field JCM Consortium (hereinafter, “the Consortium”) with Idemitsu Kosan Co., Ltd., Kanematsu Corporation, Green Carbon Inc., Sompo Japan Insurance Inc., Toho Gas Co., Ltd., Fuyo General Lease Co., Ltd., and Mitsubishi UFJ Trust and Banking Corporation. This is Japan’s first consortium formed by private companies to promote and expand the use of credits generated from paddy fields under the Joint Crediting Mechanism (hereinafter, “JCM”).

The Consortium aims to contribute to promoting and expanding the JCM in the agricultural sector with partner countries[*1] by analyzing the extent to which rice yields increase and weather conditions affect the implementation of Alternate Wetting and Drying (hereinafter, “AWD”) techniques through projects promoted by respective companies using AWD techniques in the Philippines.

## ■ Background

The JCM refers to a bilateral framework in which Japan cooperates with partner countries to reduce greenhouse gas emissions and share credits. In February 2025, Japan’s Cabinet set targets to achieve greenhouse gas emission reductions and removals of about 100 million t-$CO_2$ in total by FY2030 and about 200 million t-$CO_2$ in total by FY2040 under the JCM. The JCM will also be used to attain the Nationally Determined Contribution (NDC)[*2].

So far, no JCM credits have been generated in the agricultural sector. Thus, initiatives are underway to generate credits in this sector. AWD techniques have been officially approved as eligible for JCM credits between Japan and the Philippines, which is one of the most advanced partner countries in the efforts to issue JCM credits in the agricultural sector.

AWD represents management techniques to repeat the cycle of draining paddy fields for a certain period during a rice growing season to allow the soil to dry, and flooding rice paddies again. In general, flooded paddy fields tend to generate methane. AWD techniques, which establish periods when the water is drained, can reduce methane emissions compared to a constantly flooded condition. Studies have shown that, depending on soil conditions, AWD can reduce methane emissions by approximately 30% and increase rice yields[*3].

However, AWD implementation is highly weather-dependent, and the correlation has not been sufficiently analyzed.

## ■ Overview of the Consortium

Conceptualized by Osaka Gas and formed by eight companies, the Consortium aims to promote and expand JCM credits generated from paddy fields by analyzing data from AWD projects in the Philippines and publicizing the value and risks.

The multi-faceted value of projects, such as an increase in rice yields, will be shared with government officials and farmers in partner countries based on the actual data under the JCM to generate additional interest and anticipation for the JCM.

The Consortium will also visualize weather-related risks, which were previously unclear, and improve project foresight by analyzing the correlation between AWD and the combined

factors of precipitation amount and typhoons. This will facilitate investments and ensure information disclosure so that credit buyers can transact with confidence.

The Consortium will study the possibility of adding corporate members who support its objective to the eight founding companies. The Ministry of the Environment and the Ministry of Agriculture, Forestry and Fisheries of Japan will participate as observers.

■ Comments from the Ministry of the Environment and the Ministry of Agriculture, Forestry and Fisheries

In the JCM, AWD techniques are expected to significantly reduce greenhouse gas emissions, serving as pioneering examples of Nature-based Solutions (NbSs). This initiative, which is led by private companies to address common challenges and develop and expand a market through open collaboration, is highly meaningful and provides assurance to the government.

We hope that this initiative will help deepen communication with relevant stakeholders, including partner country governments, and address challenges in incorporating AWD projects into the JCM. We also hope that the Consortium, which is administered by the founding companies, will welcome prospective member companies and sustainably develop the initiative.

In the so-called “private-sector JCM,” where projects are established without government funding, private companies play the key role. The Government of Japan, including the Ministry of the Environment and the Ministry of Agriculture, Forestry and Fisheries, will offer active support so that more JCM projects led by the private sector will be established.

In anticipation of expansion of the JCM market in the future, Osaka Gas began to participate in an AWD-based methane emissions reduction project in Batangas, Laguna, and Ilocos Norte provinces in the Philippines. Through the deployment of the project in multiple areas, Osaka Gas endeavors to spread weather-related risks and ensure a stable supply.

The Daigas Group, under the “Energy Transition 2050” initiative announced in February 2025, remains committed to developing technologies and services that contribute to a decarbonized society and solving social issues, including climate change, in order to become a corporate group that contributes to the “further evolution” of customers' lives and businesses.

*1: Countries that jointly promote projects to reduce greenhouse gas emissions based on bilateral agreements with Japan and then share the emission reductions under the Paris Agreement.

*2: A greenhouse gas reduction target which is submitted and updated by each country every five years based on the Paris Agreement. On February 18, 2025, Japan’s Cabinet decided to reduce greenhouse gas emissions by 60% and 73% by FY2035 and FY2040, respectively, from the FY2013 level. The NDC was submitted to the United Nations on the same day.

*3: Refer to “Reduction of Methane from Paddy Fields Using Alternate Wetting and Drying (AWD) Techniques” (in Japanese) prepared by the Ministry of Agriculture, Forestry and Fisheries (June 2025).

## Appendix Company Profiles

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| Company name | Osaka Gas Co., Ltd. |
| Head office | 4-1-2 Hiranomachi, Chuo-ku, Osaka |
| Representative | Masataka Fujiwara, Representative Director and President |
| Established | April 1897 |
| Business description | Production and sale of gas; generation and sale of electricity, etc. |

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|---|---|
| Company name | Idemitsu Kosan Co., Ltd. |
| Head office | 1-2-1 Otemachi, Chiyoda-ku, Tokyo |
| Representative | Noriaki Sakai, Representative Director and President |
| Established | March 1940 |
| Business description | Fuel oil, basic chemicals, high-performance materials, electric power/renewable energy, and resources businesses |

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| Company name | Kanematsu Corporation |
| Head office | JP TOWER, 7-2 Marunouchi 2-chome, Chiyoda-ku, Tokyo |
| Representative | Yoshiya Miyabe |
| Founded | August 1889 |
| Business description | A trading company offering a wide variety of products and services focusing on five segments: “ICT Solution,” “Electronics & Devices,” “Foods, Meat & Grain,” “Steel, Materials & Plant,” and “Motor Vehicles & Aerospace” |

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| Company name | Green Carbon Inc. |
| Head office | 9F Hanzomon PREX North, 2-3-2 Kojimachi, Chiyoda-ku, Tokyo |
| Representative | Jun Okita, CEO |
| Established | February 2019 |
| Business description | Carbon credit creation and sales, agricultural-related business, environmental-related business, and other related activities, including ESG consulting |

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| Company name | Sompo Japan Insurance Inc. |
| Head office | 26-1 Nishi-Shinjuku 1-chome, Shinjuku-ku, Tokyo |
| Representative | Koji Ishikawa, President and Chief Executive Officer |
| Founded | October 1888 |
| Business description | Non-life insurance business, etc. |

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| Company name | Toho Gas Co., Ltd. |
| Head office | 19-18 Sakurada-cho, Atsuta-ku, Nagoya, Aichi |
| Representative | Satoshi Yamazaki, Representative Director and President |
| Established | June 26, 1922 |
| Business description | Gas and electricity businesses, etc. |

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| Company name | Fuyo General Lease Co., Ltd. |
| Head office | 5-1-1 Kojimachi, Chiyoda-ku, Tokyo |
| Representative | Hiroaki Oda, President and Chief Executive Officer |
| Established | May 1969 |
| Business description | Provision of leasing and financing services for corporate clients and various solutions |

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|---|---|
| Company name | Mitsubishi UFJ Trust and Banking Corporation |
| Head office | 4-5 Marunouchi 1-chome, Chiyoda-ku, Tokyo |
| Representative | Hiroshi Kubota, President and CEO |
| Established | March 1927 |
| Business description | Provision of comprehensive financial solutions, including banking, real estate, securities agent, asset management and administration services, and inheritance-related services |