

# HFCs Recovery & Reclamation and Biogenic CO2

BCG Economy  Sustainability

Bio Economy เศรษฐกิจชีวภาพ

Circular Economy เศรษฐกิจหมุนเวียน

Green Economy เศรษฐกิจสีเขียว

**Iwatani**

Iwatani Corporation(Thailand) Ltd.

# Our Business in Thailand

**Iwatani**

**Fuel  
Switching**

**Carbon  
Offset  
LPG**

**Energy  
Saving  
Equipment**

## Cartridge

## Energy

- Cassette stove
- Cassette cylinders
- Accessories for stoves
- Torch burner



## Industrial gas

- Air Separation gas(Oxygen,Nitrogen,Argon)
- Special Gases(CarbonDioxide,Helium, Refrigerant,Hydrogen)
- High-pressure gas supply equipment
- Piping and equipment installation work
- Gas applications

He



**Refrigerant  
Recovery &  
Reclamation**

**Biogenic CO2**

**Hydrogen**

**FIELD of  
4 BUSINESSES**

4 กลุ่มธุรกิจหลักของ

**Iwatani**

- Robots & Applications
- Factory Automation
- Welding material
- Reflow furnace
- Die Bonder
- Wet Blasting Equipment



**Electronics & FA**

- Resin Material
- Plastic Product
- Ceramic molding
- Heat-resistant paint
- Heat treatment jigs
- Fan guard



**Material**

**Recycled and  
Biogenic  
Resins**

**Biomass Fuel**

Contributing to the circular economy and the environment

Filling  
Business



Refrigerant import (ISO containers)

**Reload**  
[10kg, 100kg, 1,000kg]



**Analysis**



A/C & Automotive  
manufacturers etc.

Reclamation  
Business

**Maintenance Service**

By Others

- Refrigerants reclaimed during maintenance/disposal of refrigerators, freezers, and A/C equipment
- Refrigerants reclaimed during automobile A/C maintenance



**Recovery**

Gasification by heating

Purification  
in distillation tower

Liquefaction by cooling

**Iwatani**  
FACTORY

**Reload**  
[10kg]



**Analysis**



Possible to reload to 10kg, 100kg, 1000kg

**Factory**



Samutsakorn Industrial Estate

**Government Event**



Selling **Virgin** and **reclaimed** products  
under the **Iwatani brand**,



**First  
Business  
In Thailand**

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## Biogenic CO2 Project



BCP



- ✓ Existing CO2 in Thailand >90% from Natural gas field
- ✓ Shortage → Drop to 60% Capacity in FY2022

**Independent CO2 Source**

Supply Chain



- ✓ South East Asian Countries, and Japan  
Facing Serious CO2 Shortage

**Strengthen the Supply Chain**

ECO Friendly



- ✓ CO2 from Sugarcane



**Environmental Impact ▲70% ※**

※ compared to natural gas-derived CO2

## Biogenic CO2 Project

CO<sub>2</sub> Cooling &  
Plant Installation  
Technology

**Iwatani**



Supply  
Biogenic CO<sub>2</sub>  
Raw Materials

# Biogenic CO2 Scheme

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## Raw CO2

### Bio Ethanol Process



CO2 released into the atmosphere

## CO2 Plant

Start from Jul 2027

Purification  
Liquefaction

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Delivery

## Customer / Off Taker

Automotive  
(Welding)



HDD



Beverage



Dry Ice



Bio-Chemical

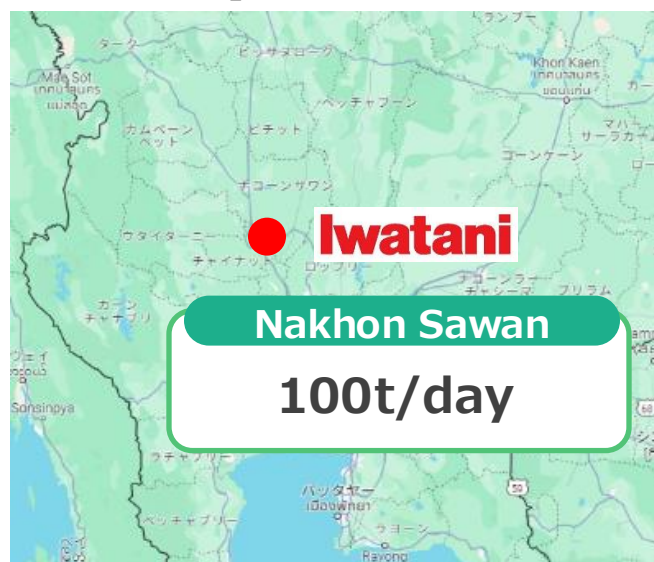


Agriculture

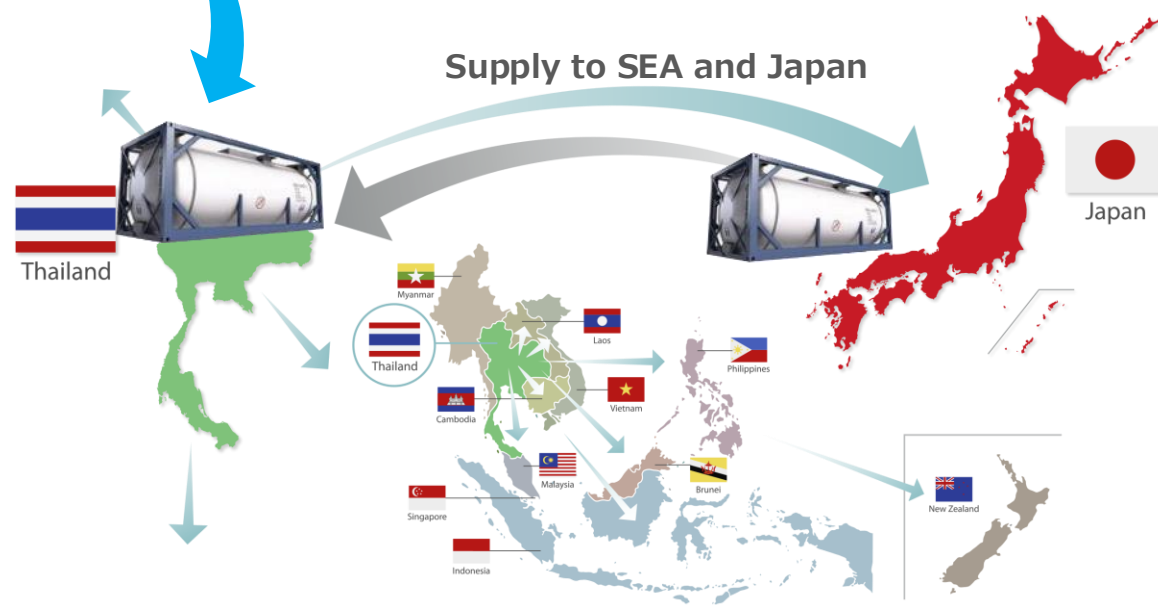


While it is an essential material for industry,  
supply shortages are occurring  
in various countries

## [Location]

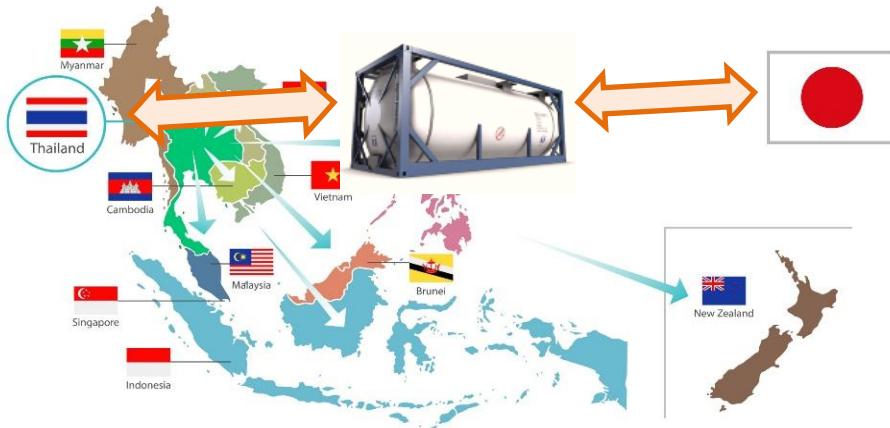


## Supply to SEA and Japan



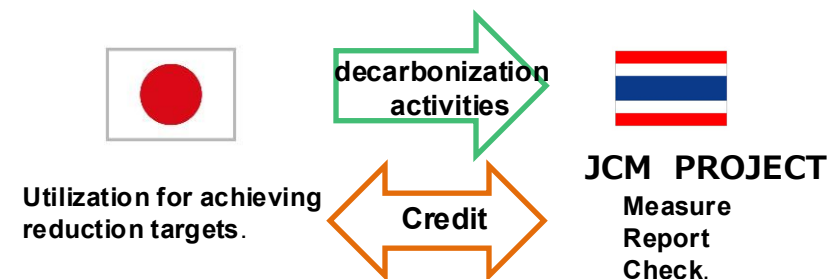
## Project for Future Co-creation with the Global South,

- **Objective:** Support for Supply Chain Resilience
- **Adoption Period :** March 2025
- **Subsidy Amount:** Approximately 1.1 billion JPY
- **Subsidy Details:** Plant, ISO, main equipment
- **Demonstration Deadline:** March 31, 2028
- **Public Application Window :** JETRO



## Infrastructure development survey project for the acquisition of bilateral credits, etc. (JCM feasibility study)

- **Objective:** Survey support for JCM acquisition
- **Adoption Period :** August 2025
- **Subsidy Amount:** Maximum 15 million JPY
- **Subsidy Details:** Survey/Investigation costs, Business trip expenses,
- **Demonstration Deadline:** January 2026
- **Public Application Window :** Mitsubishi UFJ Research and Consulting



### The beneficial effects for Japan

- 1 Ensuring a stable source of CO<sub>2</sub> supply
- 2 Reducing China-related risks



### The beneficial effects for Thai

- 1 Securing a new source of CO<sub>2</sub> supply
- 2 Building a sustainable industrial foundation
- 3 Alignment with the Thai government's BCG policy (Bio-Circular-Green Economy)



**khob kun krub**

**Thank you so much for your attention**

**Iwatani**

Iwatani Corporation(Thailand)Ltd.