

Current update of the JCM

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JCM introduction

- **Joint Crediting Mechanism (JCM):**

Diffusion of **leading low carbon technologies, products, systems, services, and infrastructure** as well as implementation of mitigation actions, and contributes to sustainable development of developing countries.

- **Current status:**

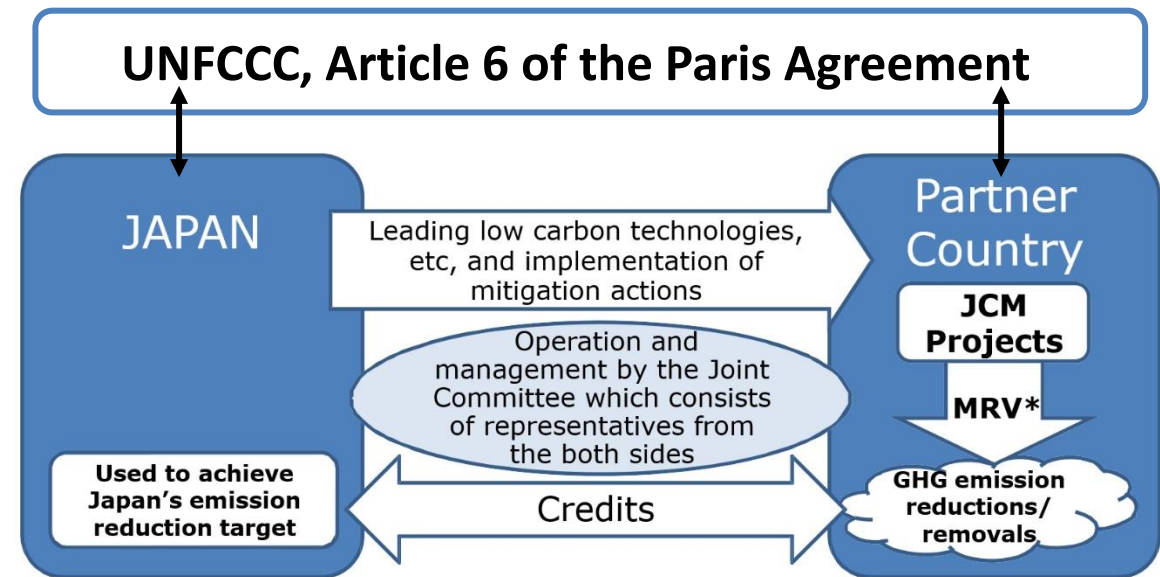
17 partner countries and more **177 projects** in different sectors

By 2030, the expected GHG emission reduction is **19.7 million tons** (as of 12 Jan 2021)

- **Introduced technologies:**

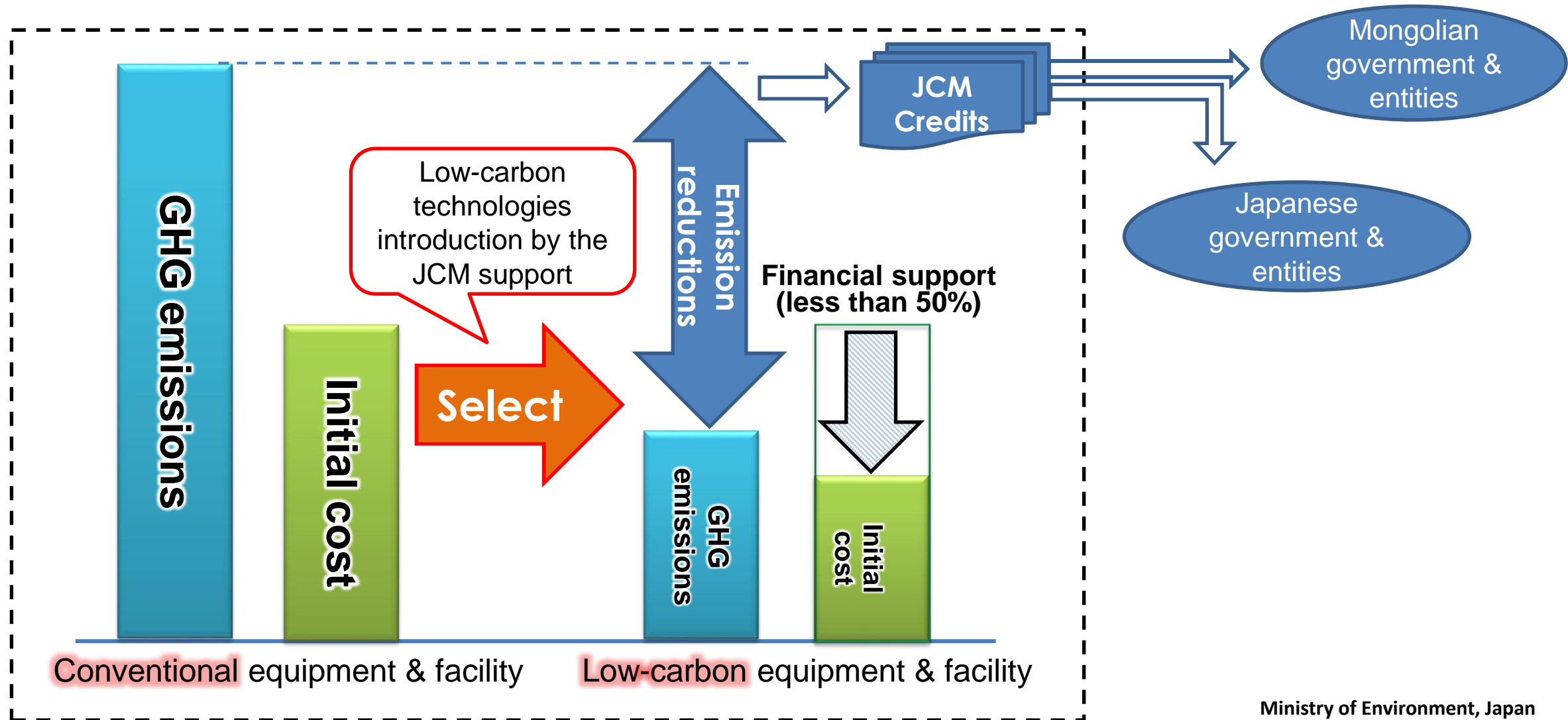
Renewable energy power generation technologies (Solar, wind, run-off hydro, biomass, waste-to-heat)

Energy efficiency technologies (Air-conditioning system, gas co-generation, transmission system)



Joint Crediting Mechanism website: <https://www.jcm.go.jp/>

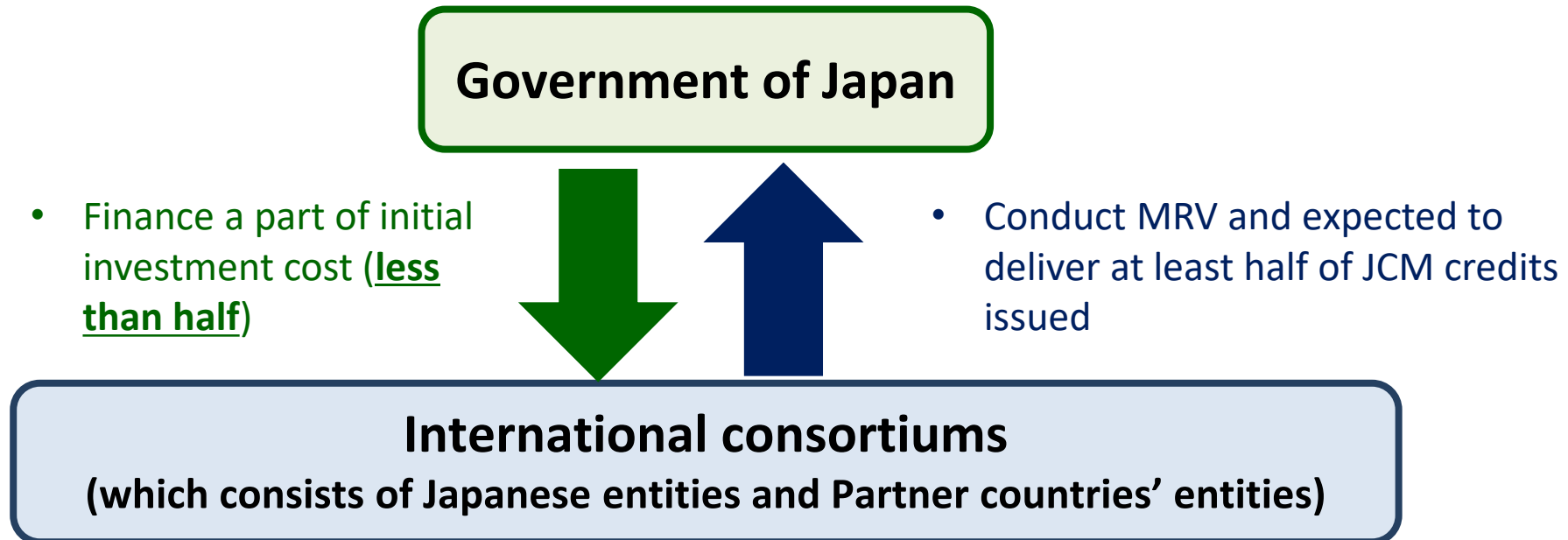
JCM introduction



Ministry of Environment, Japan

JCM financial support: 1. JCM Model Projects by MOEJ

- Budget for projects starting from FY 2020 is 9 billion JPY (approx. USD 90 million) in total by FY2022 (1 USD = 100 JPY)

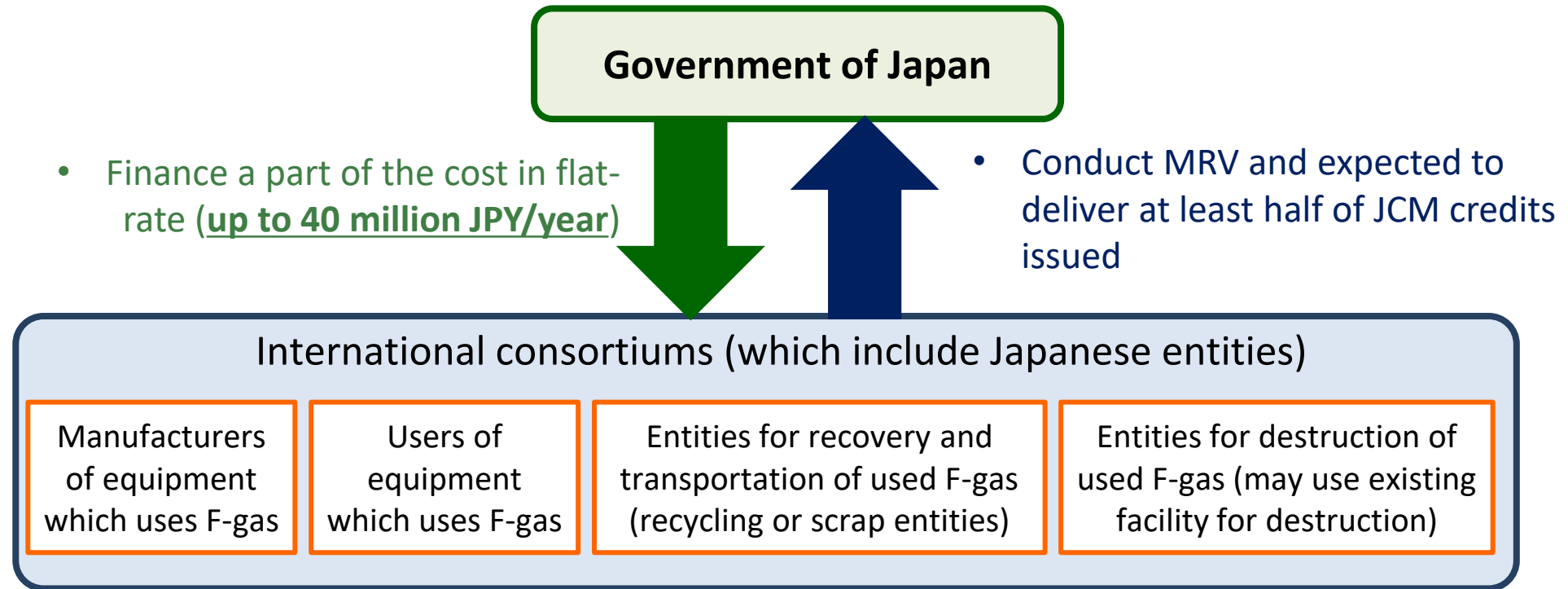


- Scope of the financing: facilities, equipment, vehicles, etc. which reduce CO₂ from fossil fuel combustion
- Eligible Projects: starting installation after financing is awarded and finishing installation within 3 years

Ministry of Environment, Japan

JCM financial support: 2. F-gas Recovery and Destruction Model Project (MOEJ)

- Budget for FY 2020: 61 million JPY (approx. 0.61 million USD) (1 USD = 100 JPY)

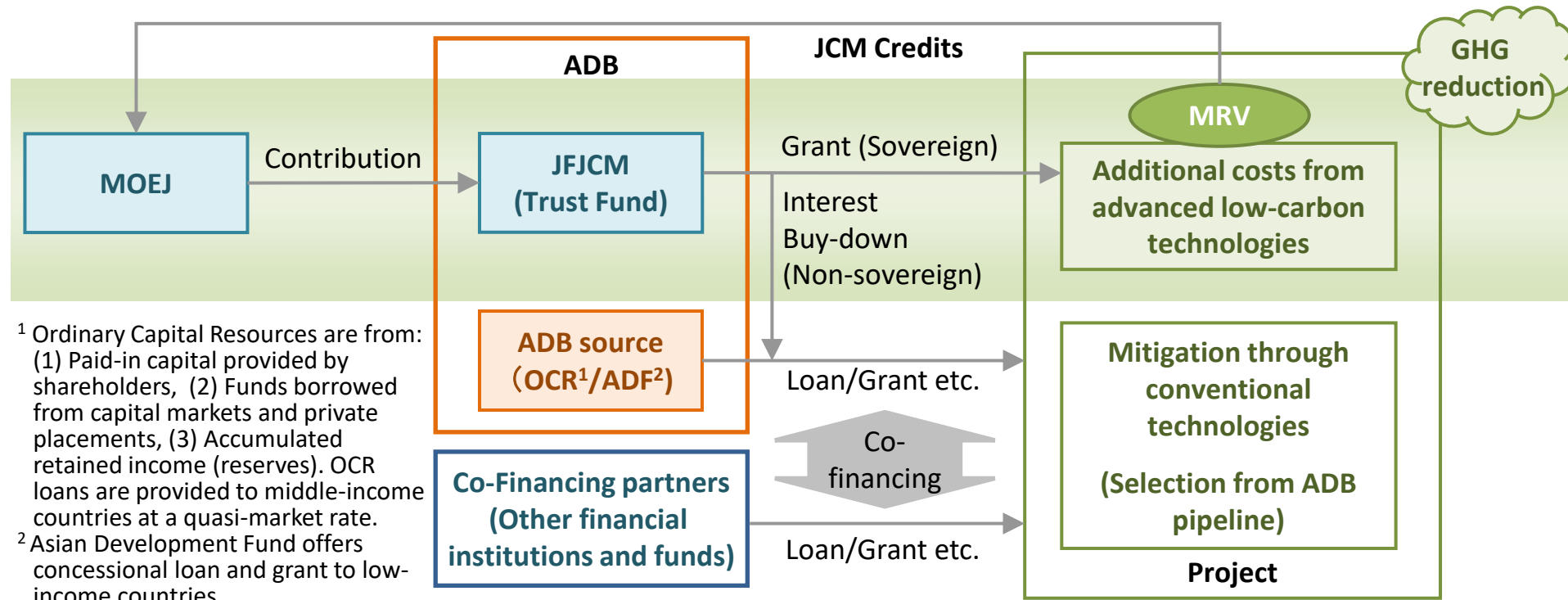


- To recover and destroy F-gas (GHG except for energy-related CO₂, etc) from used equipment instead of releasing to air
- To establish scheme for F-gas recovery and destruction, Install facilities/equipment for F-gas recovery/destruction, Implementation of recovery, transportation, destruction and monitoring of F-gas
- Eligible Projects: Three years in maximum (Ex. 1st year for scheme, 2nd year for facilities, 3rd year for recovery/destruction)

Ministry of Environment, Japan

JCM financial support: 3. ADB Trust Fund, Japan Fund JCM

- Budget for FY 2020: JPY 1 billion (approx. USD 10 million) (1 USD = 100 JPY)



- To provide the financial incentives for the adoption of advanced low-carbon technologies which are superior in GHG emission reduction but expensive in ADB-financed projects
- To develop ADB projects with sustainable and low-carbon transition perspective by introducing advanced low-carbon technologies as well as to acquire JCM credits

Ministry of Environment, Japan

JCM contributions to Mongolian NDC

Mongolian updated National Determined Contributions (NDC): pledged to reduce Greenhouse Gas (GHG) emissions by 22.7% by 2030, compared to the business as usual scenario (2010), excluding LULUCF.

Targeted Sectors	Targets	Mitigation Actions	JCM projects
Energy sector: Energy production	8,340.5 Gg CO2 eq.	<ul style="list-style-type: none"> Hydro power plants Wind power plants Solar power plants Heat pumps for heating utilities 	Run-of-river hydro power plants Solar PV power plants
		<ul style="list-style-type: none"> Reduce electricity and heat transmission and distribution grid losses Reduce the internal use of combined heat and power plants Improve the efficiency of power plants Improving the efficiency of heat only boilers 	Amorphous high efficiency transformers in power distribution system High-efficiency heat only boilers
Energy sector: Energy consumption	1,045.2 Gg CO2 eq.	<ul style="list-style-type: none"> Industry: Energy saving measures 	Energy saving (high efficiency) technologies in industries
Non-Energy sector: Industry	234.1 Gg CO2 eq.	<ul style="list-style-type: none"> Use waste heat from cement plants Use fly ash in cement production 	Waste heat recovery in cement factories
Non-Energy sector: Waste	106.1 Gg CO2 eq.	<ul style="list-style-type: none"> Reduce the waste volume for landfill through the improved waste treatment and recycling process 	Waste-to-heat project

Joint Crediting Mechanism website: <https://www.jcm.go.jp/>

JCM potential projects in Mongolia

JCM projects	Country	Japanese entity	Link
Solar PV power plants	Kenya, Indonesia, Vietnam, Saudi Arabia, etc.	Pacific Consultants Co., Ltd, Sharp Corporation, Tokyo Century Corporation, Marubeni Corporation, Kanematsu KGK Corp.	https://www.jcm.go.jp/projects/31
Amorphous High Efficiency Transformers in power distribution system	Vietnam	YUKO-KEISO Co., Ltd.	https://www.jcm.go.jp/vn-jp/projects/35
High-efficiency Heat Only Boilers	Mongolia	SUURI-KEIKAKU CO.,LTD.	https://www.jcm.go.jp/mn-jp/projects/5
Waste heat recovery in cement factories	Indonesia, Thailand	JFE Engineering Corporation, NTT Data Institute of Management Consulting Inc.	https://www.jcm.go.jp/projects/36
Waste-to-Energy project in municipal solid waste treatment	Myanmar	JFE Engineering Corporation	https://www.jcm.go.jp/mn-jp/projects/56

JCM Renewable energy project:

http://gec.jp/jcm/?p_type%5B%5D=model§or%5B%5D=renewable&cycle%5B%5D=notregistered&cycle%5B%5D=registered&s=&operator=in#label_result

JCM Energy efficiency projects:

http://gec.jp/jcm/?p_type%5B%5D=model§or%5B%5D=energyefficiency&cycle%5B%5D=notregistered&cycle%5B%5D=registered&s=&operator=in#label_result

JCM contributions to SDGs

“JCM contributions to SDGs” report (Volume 1)

- The first report analyzed interlinkages of the JCM and SDGs
- Analyzed the JCM contributions to 17 Goals and 169 Targets
- Developed JCM-specific indicators (quantitative and qualitative)
- Evaluated 57 registered JCM projects and JCM scheme itself

“JCM and SDGs Linkage Guidance” (Volume 2)

- Updated the indicators and added SDG Goals and Targets (Goal 11 and 14)
- Identified linkages between JCM project types and SDG Goals and Targets
- The JCM partner countries can use this guidance as a reference for analysing the JCM projects
- JCM contributed 12 SDG Goals (Goal 2, 3, 4, 6, 7, 8, 9, 11, 12, 13, 14, 17)

JCM contributions to SDGs report (Volume 1) in March 2020:

<https://www.iges.or.jp/en/pub/joint-crediting-mechanism-jcm-contributions-sustainable-development-goals-sdgs/en>

JCM and SDGs Linkage Guidance (Volume 2) in August 2020:

<https://www.iges.or.jp/en/pub/jcm-and-sdgs-linkage-guidance/en>



Mongolia: Solar Power Plant in farm

Project background information:

- Need to increase production of fresh vegetables and practice sustainable food production
- Severe air pollution in winter season due to use of coal

Project overview:

- 12.7MW solar power plant installed at farm in suburbs of Ulaanbaatar
- Expected GHGs emission reduction : 11,223 t-CO₂/year (average)



	<p>In 2019, 27 tons of high quality, fresh vegetables were produced and delivered to the residents of Ulaanbaatar. The revenue from the solar PV project provided support to the company to increase investment for installing Japanese agricultural technologies.</p>
	<p>Generating electricity by solar PV leads to less fossil fuel consumption which contributes to air pollution reduction and improves environmental negative impacts</p>
	<p>The Japanese company provides training for the local farmers to improve their agricultural skills for working on the solar farm®. In addition, engineers and workers in solar PV power generation carry out work under guidance provided online from the manufacturer.</p>
	<p>Since operations started in 2017, total electricity production reached about 40,000 MWh and the amount of electricity sold is about 38,000 MWh (as of 31 Dec 2019). The electricity generated from the solar PV is sold to the national grid which contributes to the increased share of RE electricity in the country, thereby reducing CO₂ emissions.</p>
	<p>Building sustainable infrastructure in Mongolian energy sector and strengthening the country's technological upgrade in the largest emitting sector would help the country to move towards more sustainable production.</p>
	<p>Participating in JCM and collaborating with different stakeholders ensure diffusion of low-carbon and decarbonisation technologies and improve the partnership between the government and private sector in both countries.</p>

Source: Farmdo Co., Ltd., Everyday Farm LLC

JCM Global Partnership

- JCM Global Partnership was established as an online platform to promote information sharing (Aug 2020)
- The Partnership includes: International organization (ADB, WB, UNIDO), Local governments (17 Partner countries), Private companies and NGOs
- The three key pillars: JCM & Carbon Neutral Project, JCM & Art 6.2 of PA, JCM & SDGs



JCM Global Partnership website: <https://www.carbon-markets.go.jp/eng/jcmgp/sdgs.html>

Thank you for your attention