

# **Article 6.2 cooperative approach - JCM linkages with the SDGs -**

**Climate and Energy Area / Researcher**

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# Outline

- **Sustainable development in Article 6.2**
- **JCM Sustainable development guideline**
- **Key finding from IGES “JCM - SDGs analysis”**
- **Case studies: JCM projects in agriculture and water management**

# Sustainable development in Article 6.2

- **Article 6.2 of the PA<sup>1</sup>**

Parties shall, where engaging on a voluntary basis in cooperative approaches that involve the use of internationally transferred mitigation outcomes towards NDCs, **promote sustainable development** and **ensure environmental integrity** and ....

- **Reporting information related to SD under Article 6.2**

C. Regular information<sup>2</sup>

**Para 22 (e):** Provides for, as applicable, **the measurement of mitigation co-benefits resulting from adaptation actions** and/or economic diversification plans;

**Para 22 (g):** Consistent with **the sustainable development objectives of the host Party**, noting national prerogatives;

1. Article 6 of the Paris Agreement, [https://unfccc.int/sites/default/files/English\\_paris\\_agreement.pdf](https://unfccc.int/sites/default/files/English_paris_agreement.pdf)

2. Draft CMA decision on guidance on cooperative approaches referred to in Article 6, paragraph 2, of the Paris Agreement. (Version 3 of 15 December)  
[https://unfccc.int/sites/default/files/resource/DT.CMA2\\_i11a.v3\\_0.pdf](https://unfccc.int/sites/default/files/resource/DT.CMA2_i11a.v3_0.pdf)

# JCM: Sustainable development guideline

## SD guideline under the JCM:

1. To prevent any **negative impacts** (focusing on environmental and social impacts)
2. **Contributions to the SDGs** in partner countries

### 1. Preventing negative impacts: SD Guideline in Indonesia<sup>3</sup> and Mongolia<sup>4</sup>

- Project participants **set out SD plan** to prevent any negative impacts on the environment and **submit SD report** to address these impacts if they identify
- **Assessment impact category:** Domestic policy alignment, Environmental impact assessment, Pollution control, Safety and Health, Natural environment and Biodiversity, Economy, Social Environment and Community Participation, Technology

### 2. SDG contributions: SD Guideline in Mongolia<sup>4</sup>

- **To identify potential contributions to the SDGs** through project implementation as a part of the SD report

3. SD Guideline under the JCM in Indonesia, [https://www.jcm.go.jp/opt/id-jp/rules\\_and\\_guidelines/download/JCM\\_ID\\_GL\\_SDIP\\_IR\\_ver01.0.pdf](https://www.jcm.go.jp/opt/id-jp/rules_and_guidelines/download/JCM_ID_GL_SDIP_IR_ver01.0.pdf)

4. SD Guideline under the JCM in Mongolia, [https://www.jcm.go.jp/opt/mn-jp/rules\\_and\\_guidelines/download/JCM\\_MN\\_GL\\_SDCP\\_CR\\_ver01.0.pdf](https://www.jcm.go.jp/opt/mn-jp/rules_and_guidelines/download/JCM_MN_GL_SDCP_CR_ver01.0.pdf)

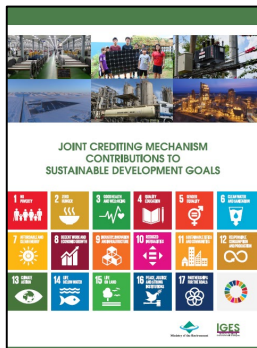
# IGES “JCM-SDGs analysis”

- To support project participants to design JCM projects to link with the SDGs
- To facilitate partner countries to maximize potentials from JCM projects beyond GHG emissions reduction

## First Volume

- Developed qualitative and quantitative indicators for the JCM

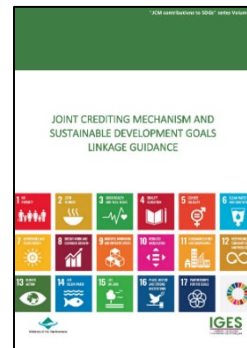
• Mar 2020



## Second Volume

- Guidance to identify JCM project linkages to the SDGs

• Aug 2020



## JCM-SDGs Best practices

- Best practices from different partner countries

• Aug 2021



IGES JCM-SDG analysis publication link: <https://www.iges.or.jp/en/pub/list/series/4680>

# Key finding: Links with multiple goals and targets



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

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



# Solar farm (agriculture sector)



## Background information of Ulaanbaatar city:

- City's population is now estimated around 1,6 million in 2021 (1.94% annual increase since 2015)
- Air pollution gets worse during the winter season, due to burning coal in a traditional dwelling house
- Around 49% of nation's vegetable demand is satisfied by local production

## Needs:

- Renewable energy sources are needed to contribute to reduce fossil fuel consumption and air pollution
- Sustainable agriculture practice is needed to improve quality and increase amount of local vegetables



## JCM project implementation as intervention:

- Farmdo Co., Ltd and Everyday Farm LLC introduced a large-scale Solar Farm® in the suburbs of Ulaanbaatar



## Outcome – Renewable generated electricity, Stable income, Increase vegetable production

- **Electricity production:** 40,139,379 kWh, and the amount of electricity sold is 38,163,056 kWh (31 Dec 2019).
- **Revenue increased:** Selling electricity generated by solar PV provides the local farm to increase investment in introducing advanced Japanese agricultural technologies, as well as enabling stable employment at the farm site.
- **Vegetable production:** In 2019, the farm produced 27 tons of fresh vegetables.
- **Sustainability:** The local farmers has participated in agriculture training in Japan for consecutive 3 years. For solar PV operation, manufacturing companies have conducted several intensive training programs for local technicians (11 people).
- **Replicability:** Developing the similar project under the JCM in Chile by using the experience from solar farm in Mongolia



# Water pumps (water management)



## Background Information of Da Nang City:

- The population is estimated to increase to over 2 million by 2025
- Number of tourists has been increasing in Da-Nang city

## Needs:

- A more stable water supply has become a high priority to meet the water demand



## JCM project implementation as intervention:

- Replaced existing conventional water pumps with Japanese higher efficiency ones in two water pump stations of the water treatment



## Outcome – Achieved a supply stable and ensured higher quality water for the city

- **Water supply:** Contributed to increasing the water supply by 50 thousand tonnes per a day. The local company supplies 70% of the water consumed in Da-Nang.
- **Energy efficiency:** Improved by around 20%
- **Better working environment:** The new equipment is much quieter which has improved the working environment
- **Sustainability:** Providing technical training sessions for local project participants for maintenance, operation and monitoring
- **Replicability:** Led to the new business opportunity. Japanese company has implemented another project at a drinking water treatment facility in Ho Chi Minh City



# Summary

- Importance of SD in the mechanisms under Article 6.2
- JCM SD guideline: both negative impacts and SDGs contributions (but country specific)
- JCM-specific indicators (quantitative and qualitative) are to analyze JCM projects linkages to the SDGs
- Projects linked with 12 Goals of 17 SDGs including agriculture and water management (Goal 2: Zero hunger, Goal 6: Clean water and sanitation)
- Allow to design and plan projects from the SDG perspective in early stage
- Partner countries are able to see potential sectors and technologies to enhance their SDG achievement

# Thank you for your attention

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# **Annex**

# Article 6 related activities in IGES

## JCM MRV and methodology development

- Enhancing understanding of JCM methodology development
- Supporting MRV development in context of JCM projects

## Article 6 capacity building

- Organizing workshops and webinars for partner countries
- Capacity building on Article 6.2 implementation for governmental officials

## Enhanced Transparency Framework

- Capacity building on reporting under Article 6.2 of the Paris Agreement
- Supporting technical capacity building on national reporting (BUR/BTR preparation)

Mutual learning program for Enhanced Transparency for Article 6 and Article 13 capacity building: <https://www.iges.or.jp/en/projects/transparency>

# Joint Crediting Mechanism introduction

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

Diffusion of **leading low carbon technologies**, products, systems, services, and infrastructure ,,, and **contributes to sustainable development of the partner countries**.

- **Current status:**

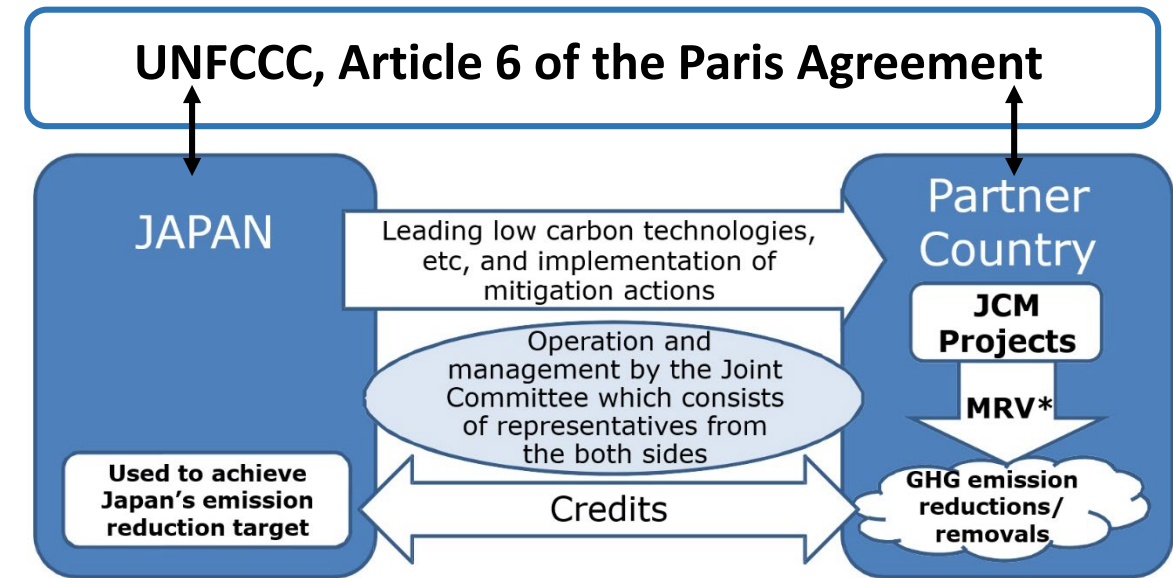
**17 partner countries** and more **214 projects in different sectors** (as of Sep 2021)

By 2030, the expected GHG emission reduction is more than **20 million tons of CO<sub>2</sub>** (as of Sep 2021)

- **Introduced technologies:**

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

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





# JCM: Governance

- **Joint Committee (JC):** Representatives from both countries including ministries and agencies involving in JCM implementation
- **JCM Secretariat** is to support JC members and to facilitate JCM administrative work



# JCM: Transparency

- **Public inputs** in the approval process of JCM methodologies (15 calendar days) and project registration (30 calendar days)
- **A local stakeholder consultation** in the partner country (requirement for every project)
- **Project design documents** including monitoring reports and methodologies **are** publically available

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- JC Decision

■ Rules and Guidelines

■ Third Party Entity

■ Methodologies

- Proposed methodologies
- Approved methodologies
- Methodologies under put on hold

■ Project Cycle Search

- Project Cycle Search
- Request for registration
- Registered project
- Issuance of credits
- Request for post-registration changes

■ Contact us



■ Link

About the Mechanism

Basic Concept of the Joint Crediting Mechanism (JCM) [more »](#)

News

- 17 Mar 21 [Call for public comments on proposed revisions to the approved methodologies, ID\\_AM002, ID\\_AM004, ID\\_AM005, ID\\_AM008 and ID\\_AM010 \(Indonesia\), \(17 to 31 March 2021\)](#)
- 19 Feb 21 [Call for public comments on proposed JCM project \(Indonesia\) "10MW Mini Hydro Power Plant Project in North Sumatra" \(19 February to 20 March 2021\)](#)
- 17 Feb 21 [Electronic Decision by the JC](#)
- 23 Dec 20 [Electronic Decision by the JC](#)
- 23 Dec 20 [Call for public comments on JCM proposed methodologies "Electricity generation by a biomass power plant" and "Energy saving by introducing waste hot water recovery system to autoclave in infusion manufacturing process line" \(Indonesia\), \(23 December 2020 to 6 January 2021\)](#)
- 03 Dec 20 [Call for public comments on proposed JCM projects \(Indonesia\) "Introduction of LED Lighting to UNIQLO Sales Stores" \(3 December 2020 to 1 January 2021\)](#)
- 05 Nov 20 [Call for public comments on proposed JCM projects \(Indonesia\) "Energy Saving for Industrial Park with Smart LED Street Lighting System" \(5 November to 4 December 2020\)](#)
- 17 Sep 20 [Electronic Decision by the JC](#)
- 14 Sep 20 [Call for public comments on JCM proposed methodology "Introduction of CNG-Diesel Hybrid Equipment to Public Buses" \(Indonesia\), \(14 to 28 September 2020\)](#)
- 03 Sep 20 [Call for public comments on JCM proposed methodology "Installation of all-electric injection molding machine with power regeneration" \(Indonesia\), \(3 to 17 September 2020\)](#)
- 12 May 20 [Call for public comments on JCM proposed methodologies "Installation of gas engine cogeneration system with absorption chiller to supply electricity, heating energy and cooling energy" and "Replacement of diffuser with aerator in aeration pond" \(Indonesia\), \(12 to 26 May 2020\)](#)
- 30 Mar 20 [Electronic Decision by the JC](#)

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Project : MV001 Solar Power on Rooftop of School Building Project

General

Issuance

Project title	Solar Power on Rooftop of School Building Project Ref No. MV001 <a href="#">PDD form</a> <a href="#">Monitoring plan</a>
MoC(PDF)	<a href="#">MoC</a>
Name of project participants (Maldives)	Villa Educational Services Private Ltd.
Name of project participants (Japan)	Pacific Consultants Co., Ltd.
Name of third party entity (TPE)	<a href="#">TPE-MV-002 Lloyd's Register Quality Assurance Limited</a>
Location of project	Country: Republic of Maldives Region/State/Province etc: Male City City/Town/Community etc: Rah'debau Hingun, Male Latitude, longitude: N 4° 10' 10.3" and E 73° 30' 32.5"
Duration	Starting date of project operation: 02 Sep 17 Expected operational lifetime of project: 10 years
Methodology No.	<a href="#">MV_AM001 Ver1.0</a>  Estimated emission reductions in each year <ul style="list-style-type: none"><li>• - (in 2013)</li><li>• - (in 2014)</li></ul>

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

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# Best practice: Solar PV System at a Salt Factory, Kenya

## Project background information:

- Electricity prices for manufacturing and industry sector are high
- Power outages often occur in rural areas (challenging issue for manufacturing)

## Project overview:

- Installation of a high-quality 991.1kW solar PV system as an alternative power source
- Expected GHG emissions reduction: 630 t-CO<sub>2</sub>eq/year (average)



The reduction in the amount of electricity purchased from electric power companies has led to a reduction in the cost of electricity usage in the factory. This makes it possible to manufacture and sell salt at a more affordable price.



Reducing fossil fuel consumption contributes to reduce air pollution. Reducing the environmental burden by improving air pollution can improve the per capita environmental impact of cities.



Vocational training on how to operate the solar PV power generation facilities was conducted for engineers at the salt factory. Pacific Consultant Co., Ltd developed and shared a monitoring manual for local employees.



20%-30% of the total annual electricity consumption at the factory is covered by electricity generated from the solar PV power generation system. The project received the Best New Subscriber Award at the Energy Management Awards in Kenya in 2019.



The use of renewable energy reduces grid power consumption and supports Kenya's transition to sustainable production while increasing sustainability of the production.



Participating in JCM and collaborating with different stakeholders ensure the diffusion of low-carbon and decarbonisation technologies and improve the partnership between the government and private sector in both countries. From project planning to implementation, project participants maintain close communication with local governments and communities.