

JCM status update in Indonesia

An effort of market based mechanism scheme
implementation to reduce the GHG emission

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What are new from Marrakech results?



Strengthening the PA implementation commitment

- Marrakech Action Proclamation
- Marrakech Partnership for Global Climate Action



Developed countries commitment on financing

- Reiterate their commitment for 100 billion/year support on GCF
- Some countries gave grants for PA implementation capacity building



Bigger roles for non state climate actors

- Private sectors and cities were called for more ambitious actions
- The actions should be transparent and have more emission reduction

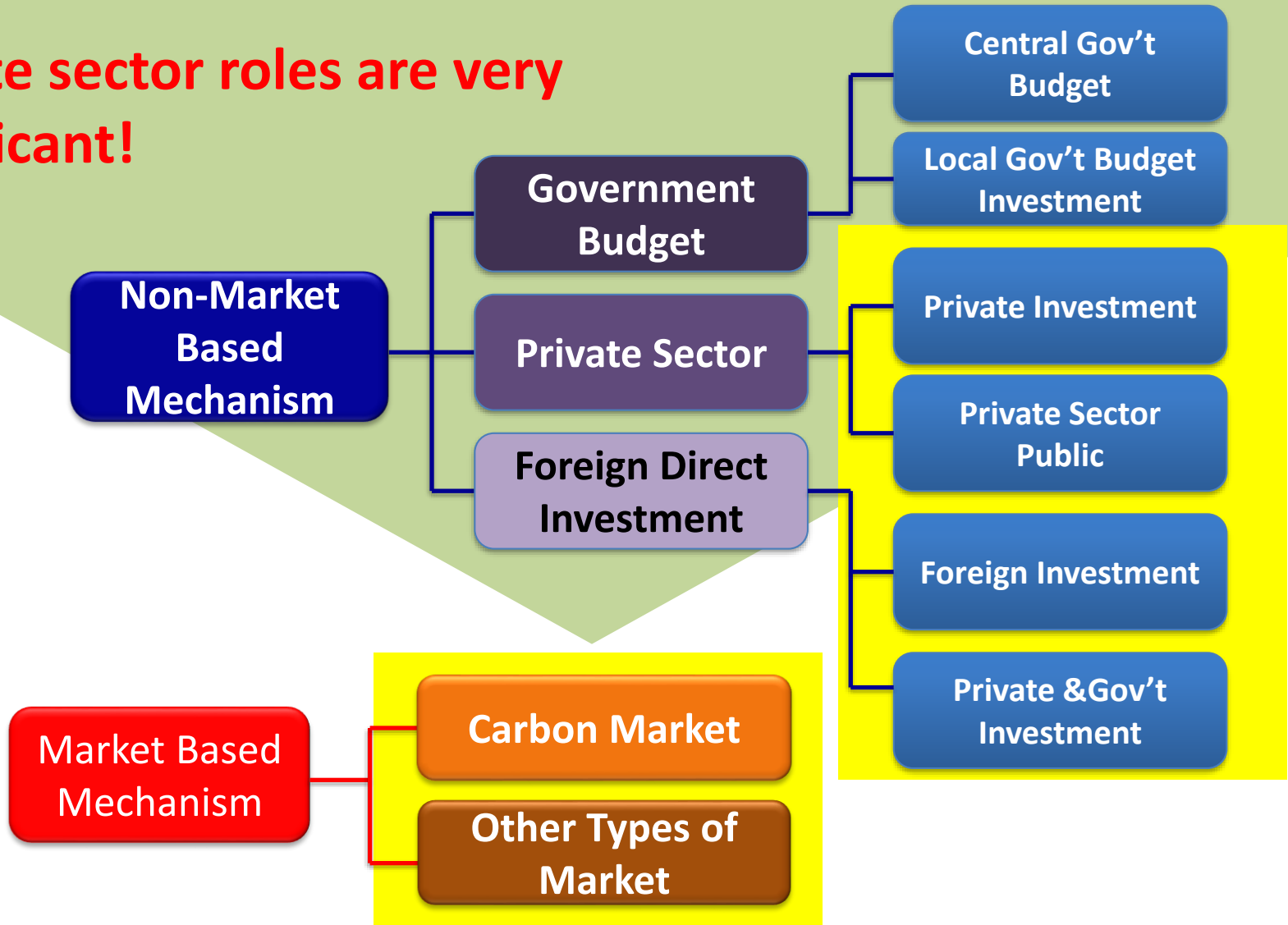


More clarity on article 6 of Paris Agreement

- Parties need to submit their views on article 6
- Some detail discussions on ITMO, new mechanism, and non market

How Indonesia finance its GHG emission reduction activities

Private sector roles are very significant!



Market Based Mechanism (MBM) experiences in Indonesia

CDM

- Total of 121 registered projects
- 2% of total global CDM registered project

VCS

- Total of 12 registered projects
- Project registered included forestry project

JCM

- Total of 28 projects covering sectors in forestry, energy efficiency, and renewable energy (in 3 years of its development)

Gold Standard

- Total of 19 projects in energy efficiency, renewable energy, forestry, waste handling and disposal

Plan Vivo

- Total of 6 projects in the forestry and ecosystem sector

Indonesia's involvement in market based mechanism initiatives

PMR

- Indonesia is one of the first countries who join this initiative in 2010.
- Still in preparation stage.
- Coordinating Ministry of Economic Affairs is the focal point

APCMR

- Indonesia is actively involved in Asia Pacific Carbon Market Roundtable initiated by New Zealand.
- The roundtable is intended to seek the possibilities of regional market based.
- New Zealand propose the SD implementation system during COP 22 in Marrakech.

Carbon Market Platform

- The newest international initiative on market based mechanism dialogue initiated by the G7 countries.
- A high level dialogue and discussion intended to create common understanding in the MBM implementation.
- G20 also will establish new dialogue on climate change, including market utilization.

Ministrial Declaration on Carbon Market

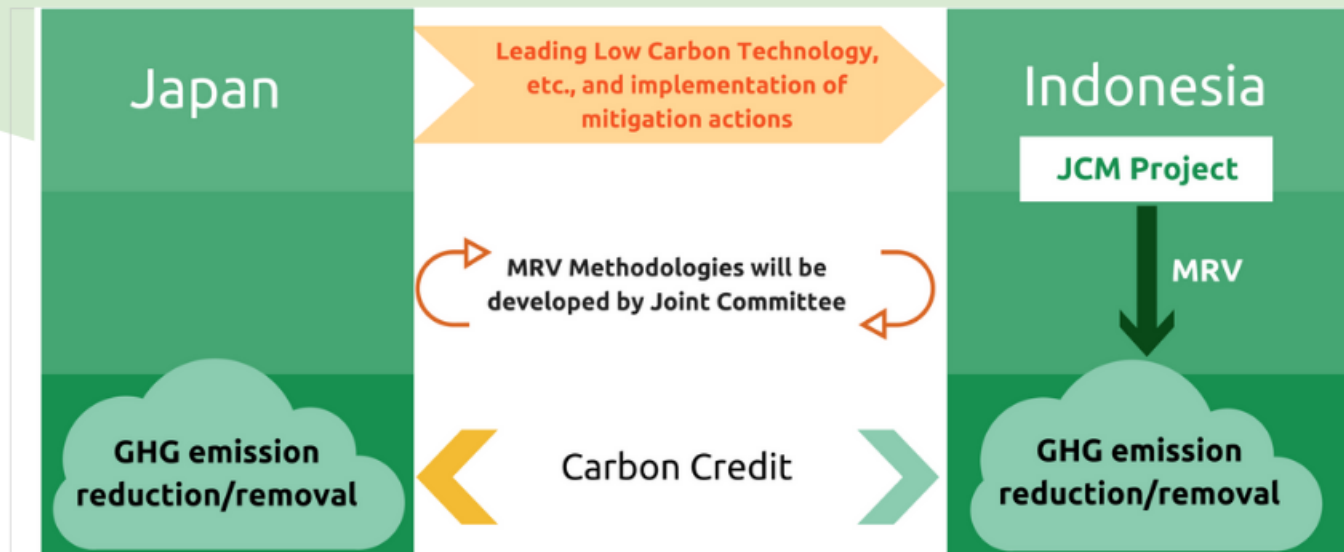
- The declaration was made to support the Paris Agreement implementation.
- Support a strong role for carbon markets to enhance the ambition and facilitate the delivery of mitigation under the Paris Agreement.
- Committed to environmental integrity, transparency and the avoidance of double counting when market mechanisms are used.



JCM (Joint Crediting Mechanism)

JCM is a G-to-G scheme which encourages private sector organizations to invest in low carbon development activities in Indonesia through incentive from the government of Japan. JCM scheme has been proven to support the Government of Indonesia's effort to reduce its carbon emission and to implement low carbon development

JCM Basic Concept





Legal basis of JCM:

Bilateral Cooperation Document on the JCM for the Low Carbon Growth Partnership between the Republic of Indonesia and Japan

Para 3

Both sides, in order to promote investment and deployment of low carbon technologies, products, systems, services and infrastructures to achieve low carbon growth in Indonesia, establish a Joint Crediting Mechanism (hereinafter referred to as the “JCM”) and implement it in accordance with the relevant domestic laws and regulations in force in respective countries.

Para 13

This partnership covers the period from the signing of this document until the operationalization of a new international framework under the convention. Both sides consider possible extension of this partnership and reach a conclusion before its termination, taking into account, inter alia, the progress of negotiations under the convention.

**Local
Government**

**State-
owned
Companies**

**Private
Sector**

University

JCM Stakeholders in Indonesia

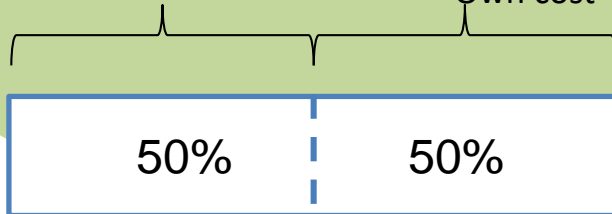
1. Coordinating Ministry for Economic Affairs
2. Ministry of National Development Planning
3. Ministry of Environment & Forestry
4. Ministry of Foreign Affairs
5. Ministry of Finance
6. Ministry of Energy and Mineral Resources
7. Ministry of Industry



JCM financing scheme

Model Project

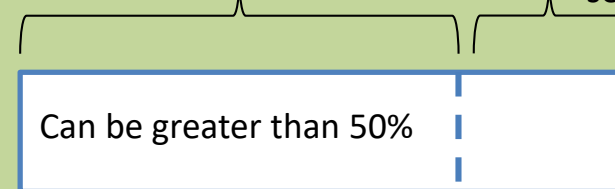
Subsidy by MOEJ Project participants
Own cost



Initial cost for the installation of new equipment

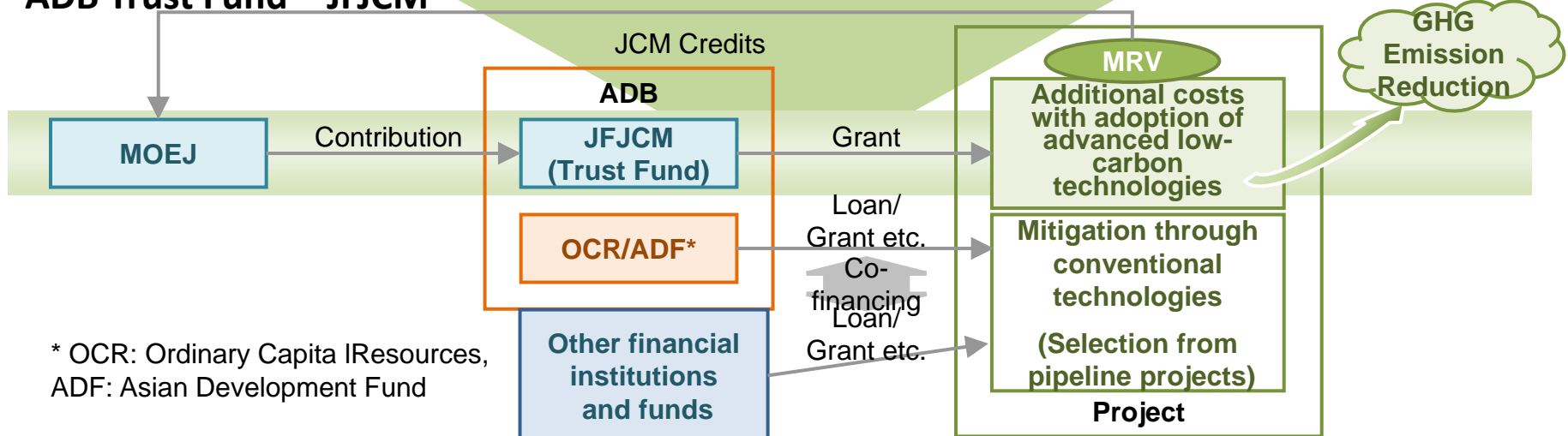
Demonstration Project

Subsidy from METI Financial support from private sector



The amount of subsidy is based on the negotiation with METI

ADB Trust Fund – JFJCM



JCM Financing in Indonesia

(Based on July 2016 data)

Subsidy and grant
from Government of
Japan for JCM
scheme in Indonesia

Grant for
Feasibility
Studies
**± US\$
10 million**

Subsidy for
implementation of
low carbon
development
projects
**≥ US\$
37 million**

The subsidy
has
mobilized fund ...

low carbon
investment from
private sectors &
Indonesian State-
owned company
**≥ US\$
113 million**

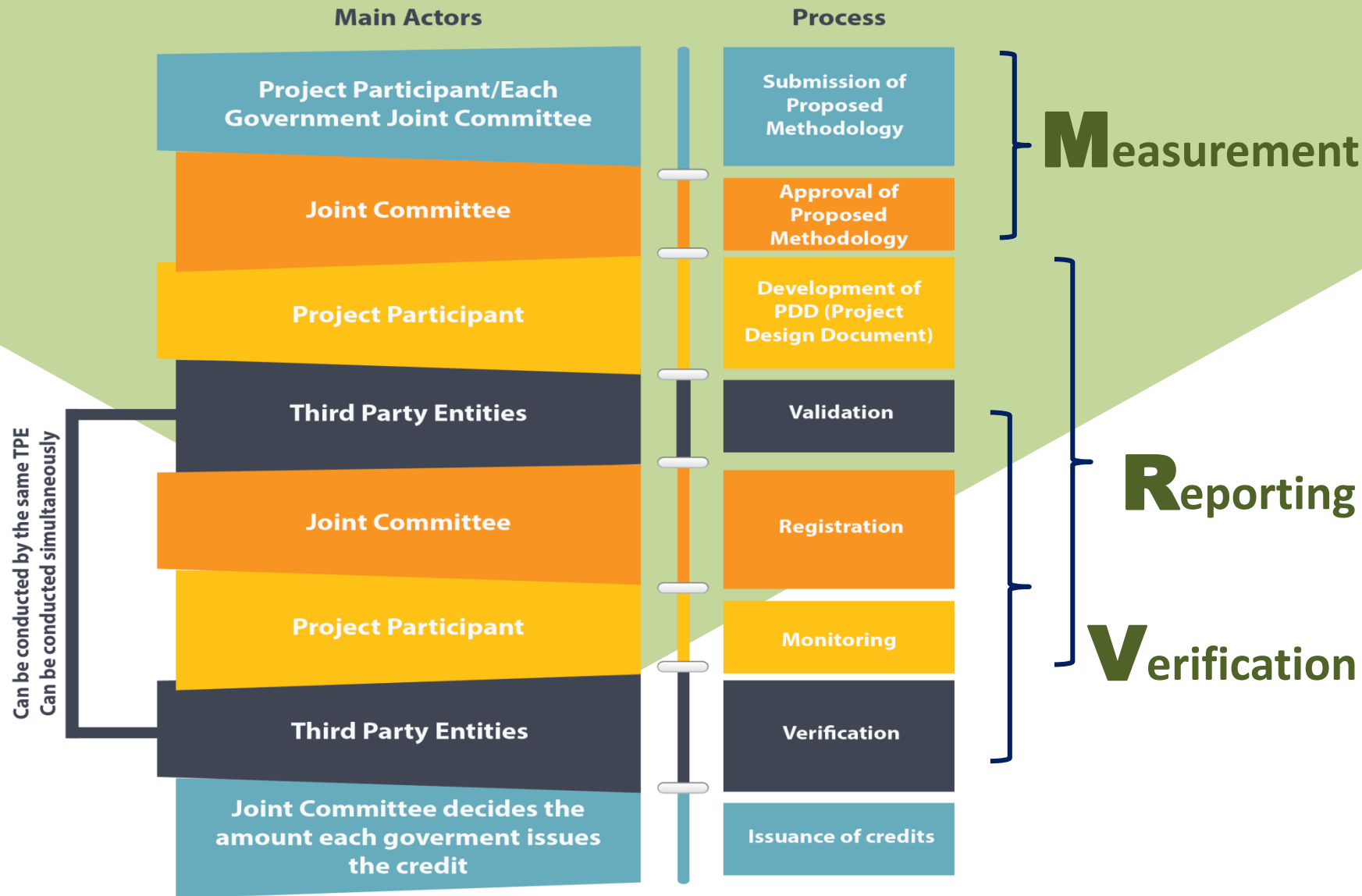
so...

Current total
JCM project
investment in
Indonesia
**± US\$
150 million**



*Calculation based on estimation

Step by step of JCM scheme



JCM has many similarities with other market based initiative scheme

JCM's infrastructures

Guideline:

1. Project Design Document
2. Proposed Methodology
3. Third Party Entity
4. Validation and Verification
5. Sustainable Development Implementation Plan and Report

Rules:

1. Rules of Implementation
2. Rules of Procedure for JC

Procedure: Project Cycle Procedure

Methodologies:

12 methodologies of energy efficiency and renewable energy have been developed

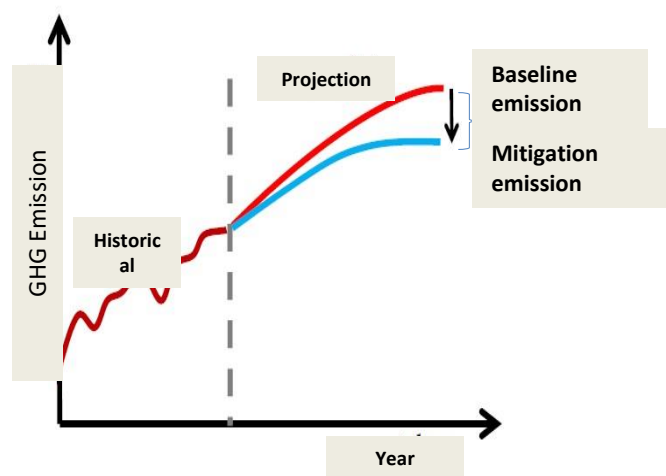
Registry system

ISO 14065 based

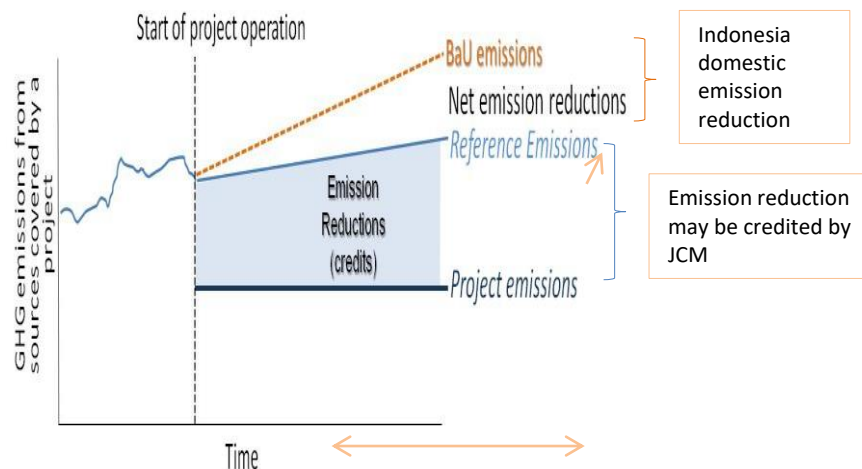
- As a bilateral cooperation scheme, JCM complies to each country's policy
- Decision maker in JCM is Joint Committee which consist of related ministries as the representative of each respective country
- Article 6 in Paris Agreement recognized market mechanism as part of the effort to achieve global emission reduction target

Comparison between JCM basic MRV with other schemes

Baseline emission based calculation



Reference emission based calculation



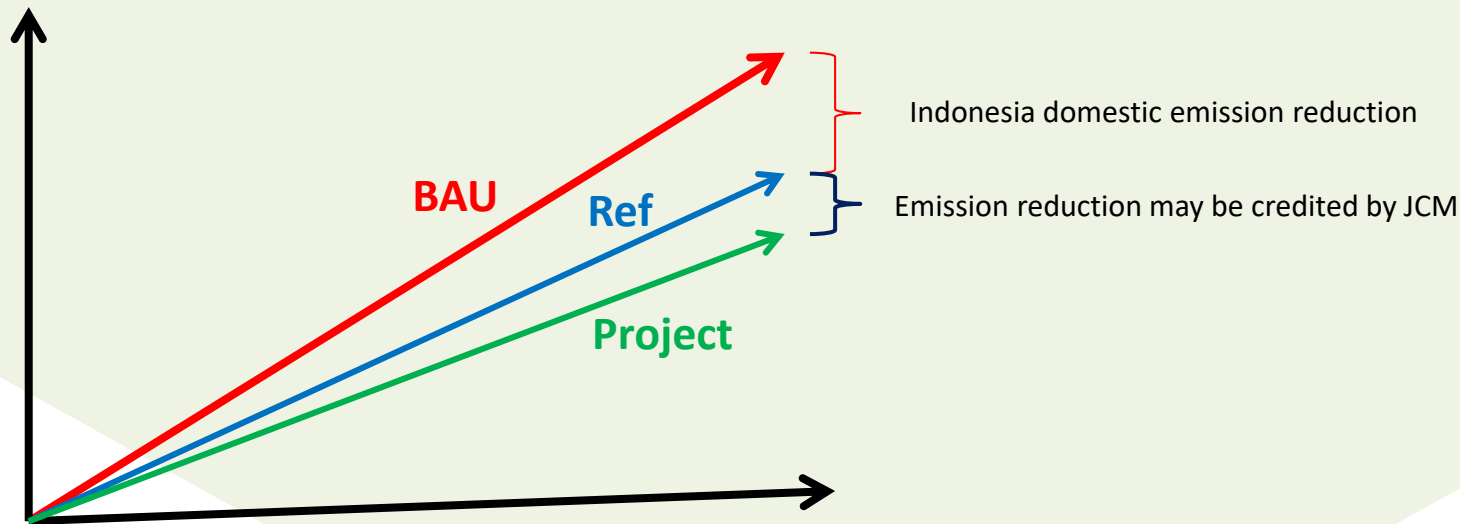
Other mitigation project in Indonesia

JCM project

1. In JCM scheme, *emission reductions* to be credited are defined as the difference between **reference emissions** and project emissions.
2. *Reference emissions* are calculated below business-as-usual (BaU) emissions which represent **plausible emissions** in providing the same outputs or service level of the proposed JCM project in the host country.
3. JCM approach will ensure a net decrease and/or avoidance of GHG emissions.
4. *The value of Reference Emissions in JCM depends on the methodology. Therefore, the value can be equal or different with Baseline Emission.*

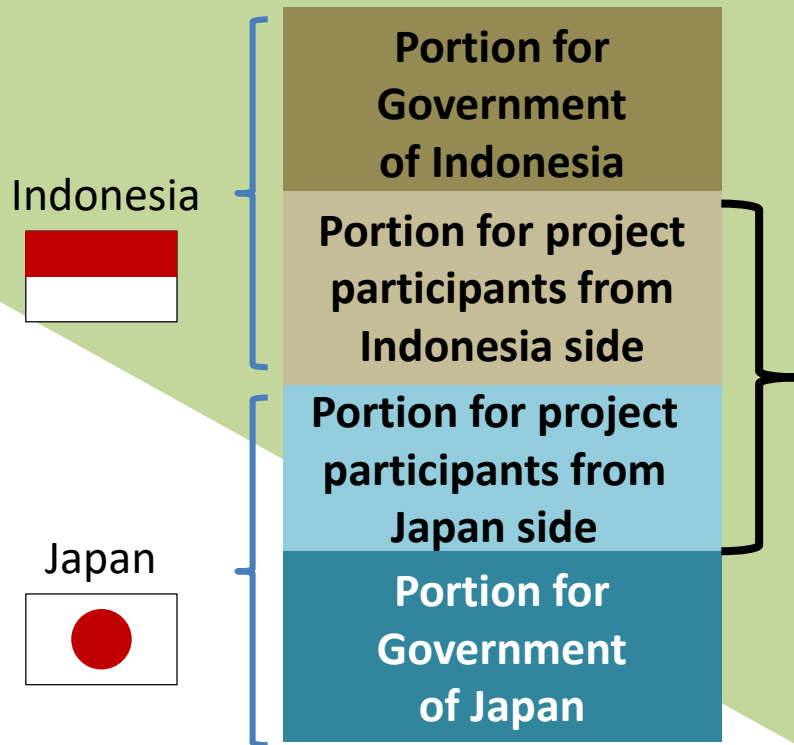
Example of JCM emission reduction calculation

Energy saving for air conditioning at shopping mall with high efficiency centrifugal chiller



1. The latest technology of high efficiency chillers are installed in Tunjungan Plaza Surabaya to replace the conventional chiller.
2. Coefficient of Performance (COP) for the old chiller is 4.6 (0.77 KW/Ton Ref) while the new chiller is 6.28 (0.56 KW/Ton Ref).
3. The COP of commonly available chiller in Indonesia market is 5.94 (0.59 KW/Ton Ref). Without JCM funding, Tunjungan Plaza will use this type of chiller (if they have budget).
4. The emission reduction calculation for the JCM is the comparison between project emission and reference emission (not with baseline emission)
5. **Reference emission – Project emission = 996 ton CO₂/year**
6. **Baseline emission – Reference emission = 3,925 ton CO₂/year.** This can be directly reported as the Indonesia domestic emission reduction.

JCM emission reduction credit sharing



- The Government of Indonesia and Government of Japan will receive portion of the total emissions reduction
- Indonesia side = Government of Indonesia shares + private sector shares
- Japan side = Government of Japan shares + private sector shares.

How to share the JCM credits?

1. Indonesia government will take its credit share.
2. The business entities as project participants will discuss among themselves on the emission reduction portions for each party. The credit will be shared based on its investment contributions. Everything will be discussed.
3. The Japan government will take their credits from their business entities.

JCM project example 1:

Energy efficient refrigerants to cold chain industry

The first two JCM projects which have issued credits

Project participants: PT Adib Global Food Indonesia & Mayekawa MFG

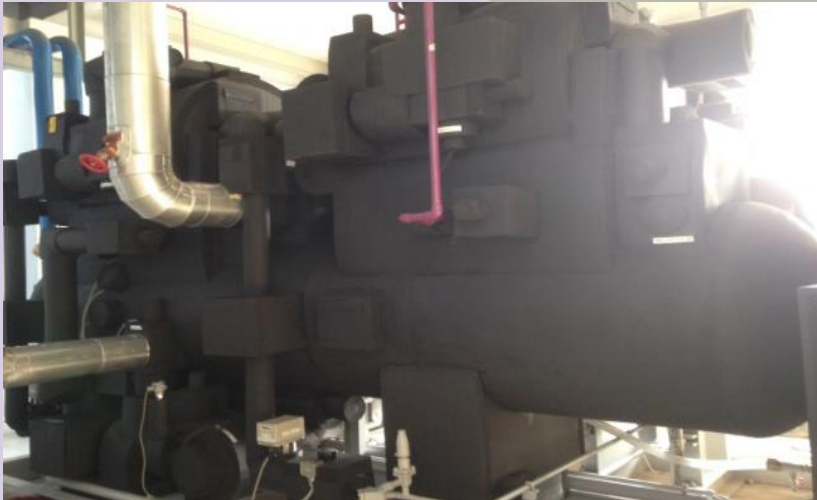
Karawang site:

- Installed technology: Compressor (43 kW) and Intelligent Quick Freezer.
- By using Intelligent Quick Freezer, production capacity in Karawang site has increased from 2 tpd to 4 tpd.
- Total amount of credit issued: 11 tCO₂



Bekasi site:

- Installed technology: Compressor (2x43 Kw)
- The chillers are used for the cooling room purposes.
- For Bekasi site 20% reduction of energy consumption has been attained through the JCM project implementation.
- Total amount of credit issued: 29 tCO₂



JCM project example 2:

Waste Heat Recovery Power Generation

The participant:

PT Semen Indonesia Tbk, a state-owned company and the biggest cement producer in Indonesia & JFE Engineering

The project:

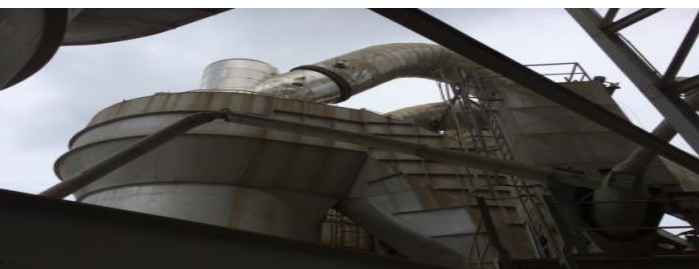
Project is utilizing the waste heat gases of exit preheater and cooler to generate electricity. The WHR power generation capacity is 30.6 MW

The benefit:

Expected CO₂ emission reduction: 122,358 tCO₂/year

The characteristic:

Currently is the biggest JCM project in Indonesia in terms of investment value and estimated emissions reduction



Thank You!



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for Economic Affairs
Republic of Indonesia



Indonesia JCM Secretariat

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