Joint Crediting Mechanism (JCM) and Market Based Mechanism in Indonesia

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How Indonesia finance its GHG emission reduction activities

Market based mechanism is one of the tools to finance GHG emission reduction activities

Non-Market Based Mechanism

Government Budget

Private Sector

Foreign Direct Investment

Market Based Mechanism

Carbon Market

Other Types of Market

Central Gov’t Budget

Local Gov’t Budget Investment

Private Investment

Private Sector Public

Foreign Investment

Private & Gov’t Investment
Private sector needs to implement low carbon technologies

- Low energy prices
- New, efficient, sophisticated, sustain, but affordable technologies to reduce cost
- Financing scheme to support the activities.
- Knowledge and capacity building for the implementation of energy efficient and green technologies

- Government has limited budget to support all of the low carbon implementation by private sectors.
- International support and market based mechanism can be good choices to be explored.
Market Based Mechanism

Mechanism which utilizes market, price and other economic variables to provide incentives for emitters to reduce or eliminate negative externalities.

Benefit of Market-based Mechanism

Provide financial support for climate change mitigation action

Facilitate the diffusion of advance low-carbon technology

Enabling higher ambition in climate change mitigation

Accelerate technology transfer and capacity building in low-carbon technology and mitigation action
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
### Other 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 cooperation and implementation

#### 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.
- Indonesia was invited as observer

#### 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.
33 private sectors join the JCM implementation
2 Indonesia third party entities had been accredited by ISO 14065
JCM Financing in Indonesia

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

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

*Calculation based on estimation*
JCM Project Implementation in Indonesia

- 22 Projects in pipeline
- 6 JCM registered projects
- 2 Registered projects which already issuing the credit
- 108 Feasibility studies have already implemented in Indonesia

Types of implemented projects:
- Energy efficiency in industry
- Renewable energy
- Waste handling and utilization
- Low carbon infrastructure development
- Energy efficiency in building
- Sustainable forest management
JCM project example 1: Energy efficient refrigerants to cold chain industry

The first two JCM projects 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 were used for the cooling room purposes.
• For Bekasi site 20% reduction of energy consumption is expected than the reference scenario.
• Total amount of credit issued: 29 tCO₂
JCM project example 2: Waste Heat Recovery Power Generation

**The participant:**
PT Semen Indonesia Tbk is 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
JCM’s infrastructure as an example of market based mechanism

**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 efficiencies and renewable energy have been developed

As a bilateral scheme, JCM comply to each country’s policy

Decision makers in JCM are related ministries as the representative of each respective country
The Indonesia JCM registry system is developed and maintained to ensure the accurate accounting of the issuance, holding, transfer, acquisition, cancellation and retirement of JCM credits.

Three (3) basic transactions in JCM registry: transfer, cancellation, and retirement.

Components in the Indonesia JCM registry:
- “Master Operation sheet” to register JCM project and new account in the system and to modify the information which already in the registry system
- “Credit Related Operation sheet” to manage the JCM credit in the registry system
- “Master sheets” act as a database that store all operation and input in the system.
- “Account sheets” is to manage the credit amount of each account.
An example of the JCM credits usage

Aviation use a transparent and accountable MRV system (CORSIA)

MRV for CO2 emission

MRV for CO2 Emission reduction

JCM project use a rigid and trusted schemes

+ 2500 ton CO2

- 2500 ton CO2

0 ton CO2
Link of JCM registry with other mitigation activities

- Indonesia JCM Secretariat will act as the account holder of the National Registry System (SRN)
- All activities in JCM related to registration and emission reduction result will be reported to SRN
Thank You!