

# The Current Development of the Joint Crediting Mechanism (JCM) in Indonesia



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# **Presentation structure**

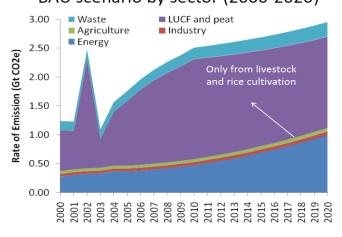


- 1. The Indonesia current market mechanism initiatives status
- 2. The JCM current development
- 3. How the JCM works?
- 4. The Indonesia participants involvement in JCM processes
- 5. The JCM steps



# It's all started from climate change issues

# Historical and projection of GHG emission under BAU scenario by sector (2000-2020)

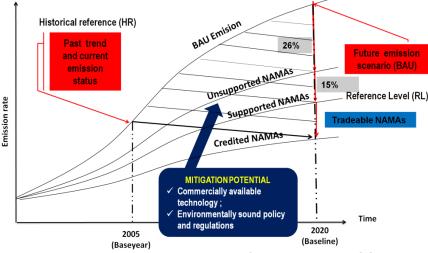


- Economic growth increases with GHG emission
- 7 years to achieve national commitment of GHG emissions reduction by **26%** under BAU level in **2020** (up to 41% with international support).
- Emission reduction is not compromising growth (26/7 vision).

#### **Lesson learned:**

- Carbon market instruments such as CDM proved to be effective to spur emissions reduction by industries: 215 projects approved by DNA, 146 projects registered, 37 projects issued CERs (equals to 11 million tCO2)
- Increasing interest and opportunity from voluntary carbon markets, currently 9 projects are already delivered more than 8 million tons.

#### **Emission Reduction Targets**



Source: DNPI, 2011

		•
Sector	Unilateral	Supported
Forestry and Peat	0.672	1.039
Waste	0.048	0.078
<b>Energy and Transport</b>	0.038	0.056
Agriculture	0.008	0.011
Industry	0.001	0.005
Total	0.767	1.189

(in GtCO2e) Source: DNPI/2011



#### The JCM and other Indonesia initiatives on market mechanism

#### **CDM**

- Giving very high expectation in the beginning, very difficult and complex to be implemented, and suddenly everything was stopped due to the lack of demands, now we have no new project in 2014.
- But still we got a lot of experiences from the CDM projects that we have developed.

#### **VCS**

- Relatively small compare to CDM, but still growing smoothly.
- It's very difficult to escalate the Indonesian business sector involvement in VCS mechanism, and until now only very limited projects that have been developed (one of it is our first REDD+ project).

### Nusantara Carbon Scheme

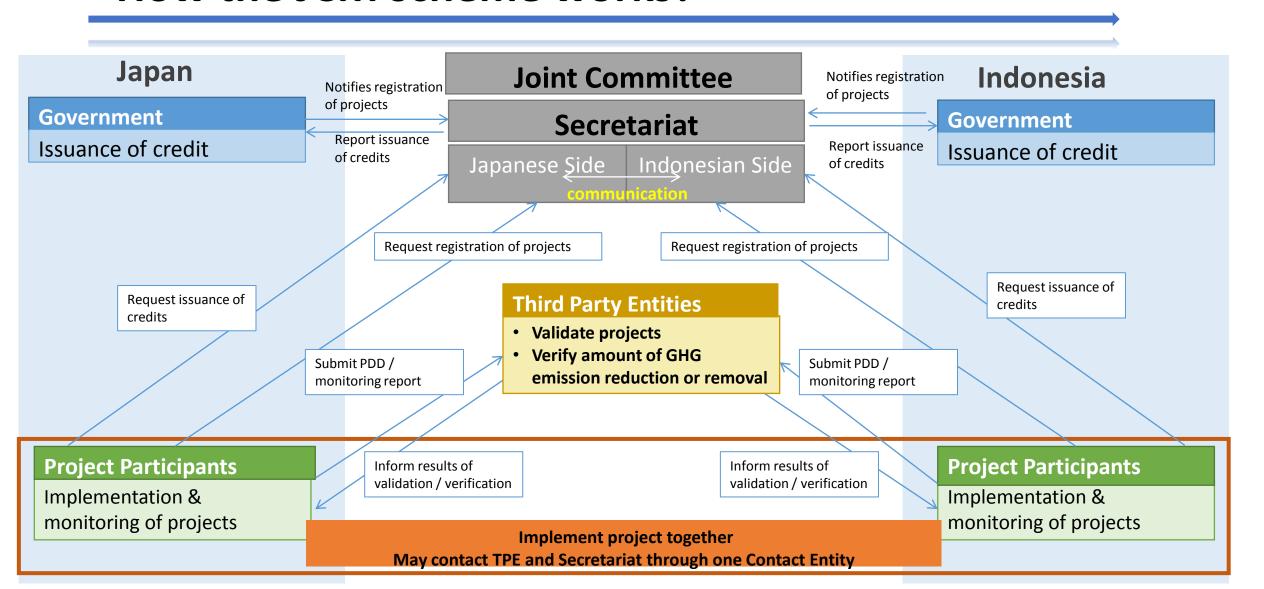
- Still in the preliminary stage.
- Some of the methodologies had been tested, and so far receive positive responses from the business entities.
- We hope someday it will be one of the alternative for the market based mitigation actions.

#### The JCM Scheme

- We need more than three years to develop the agreement, started from 2010 and its finally signed at August 2013.
- The Joint Crediting Mechanism is the most progress mechanism now in Indonesia.
- It is not only about the bilateral carbon trading, but rather than how to develop and implement the green investment as well as low emission development and technology transfer between the 2 countries.
- Japan and Indonesia have their own national target on emission reduction to be achieved, and it can be done through JCM.
- Both countries also need to increase their economic development as well as develop more opportunities for their private sectors to grow.



## How the JCM scheme works?





# Steps in the JCM

**Submission of Proposed** Project Participant / Each Government Methodology **Joint Committee Approval of Proposed** Joint Committee Methodology by the same TPE simultaneously **Development Project Participant** of PDD \* **Third Party Entities Validation** Registration conducted Joint Committee conducted **Monitoring Project Participant** Verification **Third Party Entities** be be Can Can **Issuance** Joint Committee decides the amount of credits Each Government issues the credit

\*PDD: Project Design Document



## Baseline emission and reference emission differences

(an example of a comparison between calculation based on JCM and on MRV Regulation PerMenLH 15/2013)

#### Reference emission based calculation Baseline emission based calculation Indonesia domestic emission reduction Start of project operation **Ball emissions Baseline** emission Projection Net emission reductions **Emission reduction** Reference Emissions Mitigation emission GHG Emission **Emission** Emission reduction may be Reductions credited by JCM Historical (credits) Project emissions

Baseline emission is equivalent to BaU and/or Reference Emissions.

Year

- Mitigation Emission is equivalent to Project Emissions.
- In JCM, 2 types of emission reduction are measured: Reference Emissions & Project Emission.
- Reference Emissions is the emission value prior the project is implemented and its amount is below BaU emission.

Time

• The value of Reference Emissions in JCM depends on the methodology. Therefore, the value can be equal or different with Baseline Emission.

The measured emission reduction "recorded" in JCM can be equal, but will not be above the value recognized by MRV PerMenLH 15/2013.



# The JCM projects current development

#### The Feasibility Study (FS)

- 75 FS have been done in 2010-2013 on 13 sub sectors.
- 21 FS will be finished on February 2015, including 3 FSs that cooperate with local government (one of it is Bandung FS project).

#### **The Project Implementation**

- 11 JCM projects are now in our pipeline.
- 1 project is withdraw due to the political issues.
- 1 project is registered as a JCM project.
- 9 projects on energy efficiency and 2 projects on renewable energy.
- All of the projects are being developed with the cooperation between Indonesia and Japan participants.

#### **The Registered Project**

"Energy Saving for Air-Conditioning and Process Cooling by Introducing Higherficiency Centrifugal Chiller" is our first registered project under the JCM.

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#### The 1<sup>st</sup> JCM registered project:

- Collaboration between Ebara Equipment & Systems and PT Primatexco Indonesia
- Location: Batang, Central Java
- Estimated total emissions reduction 799
   tCO<sub>2</sub> eq. by 2020
- Annual 965 MWh energy saving

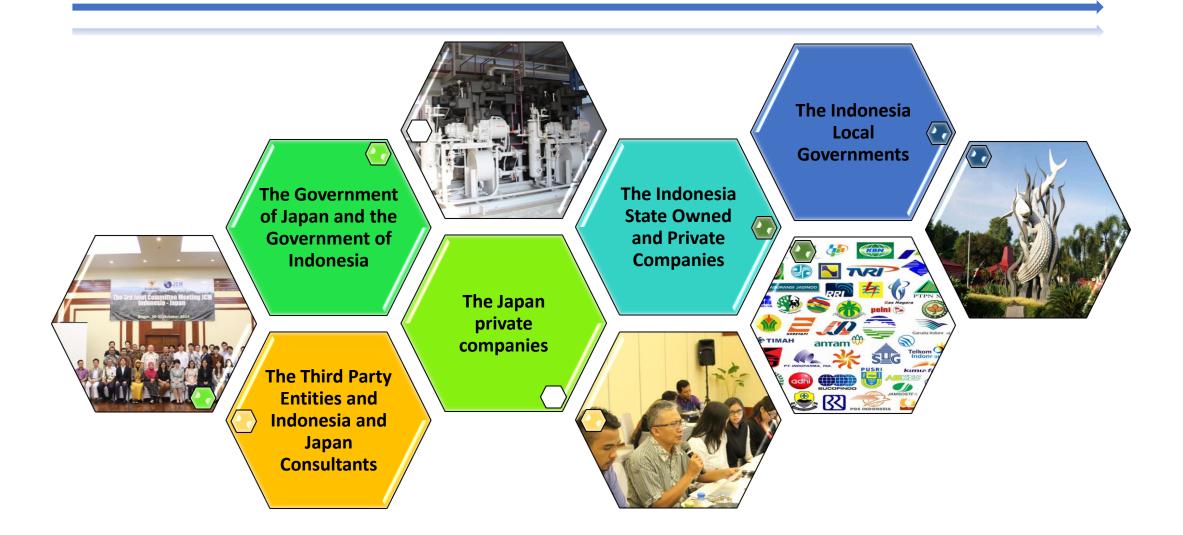




Num.	Project Names	Estimated Emission Reduction (ton CO2/year)	Capacity/esti mated energy saving	
1.	Energy saving by double bundle-type heat pump at beverage plant	585		
2.	Energy saving for air-conditioning at textile factory	592	799 MWh	
3.	Energy saving for air-conditioning and process cooling at textile factory	715	965 MWh	
4.	Energy Savings at Convenience Stores	33.1	39 MWh	
5.	Energy Efficient Refrigerants to Cold Chain Industry	213	288 MWh	
6.	Energy Saving by Optimum Operation at Oil Refinery	3,400		
7.	Utility Facility Operation Optimization Technology - "RENKEI" Control	58,000	800 MWh	
8.	Energy saving through introduction of regenerative burners to the aluminum holding furnace of the automotive components manufacturer	855.6		
9.	Energy saving for textile factory facility cooling by high efficiency centrifugal chiller	104	92.4 MWh	registered
10.	Remote Auto-Monitoring System for Thin-Film Solar Power Plant in Indonesia	1,432	1 MW	
11.	Power generation by waste heat recovery in cement industry	122,000	30,4 MW	
12.	Palm waste biomass power generation project	28,128	5.7 MW	withdraw
13.	Solar power hybrid System installation to existing base transceiver stations in off-grid area	2,786	18 KW	









# **Necessary documents for JCM**

#### Overall

- ✓ Rules of Implementation
- ✓ Project Cycle Procedure
- ✓ Glossary of Terms
- ✓ Guidelines for Designation as Third Party Entity (TPE) Guidelines (in developing phase)

#### **Joint Committee**

✓ Rules of Procedures for the Joint Committee

#### **Project procedures**

**Developing a PDD** 

✓ Guidelines for Developing PDD and Monitoring Report

Validation and Verification

✓ Guidelines for Validation and Verification

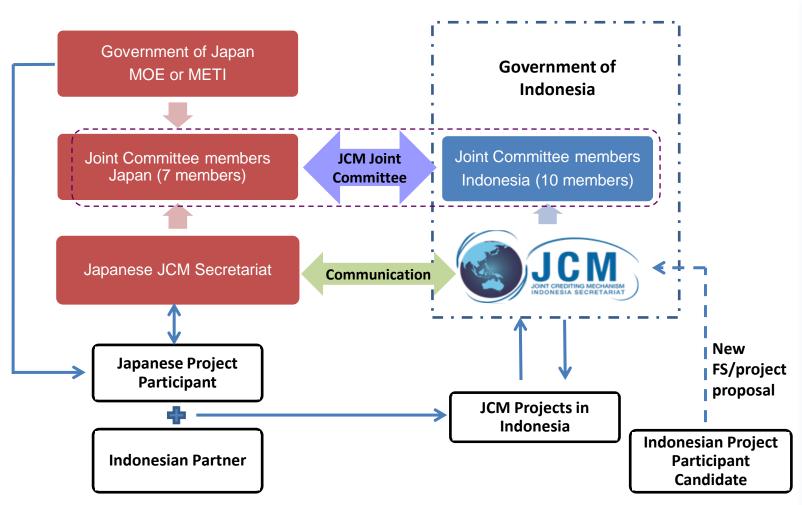
Some national guidelines are being prepared for the JCM implementation, e.g.:

- ✓ Project Monitoring and Evaluation Guidelines
- ✓ Sustainable Development Implementation Guidelines
- ✓ Capacity Building Implementation Procedures
- √ Etc

We facilitate the continuous discussions between Indonesian and Japanese side as one of the most crucial part for development of these guidelines and procedures



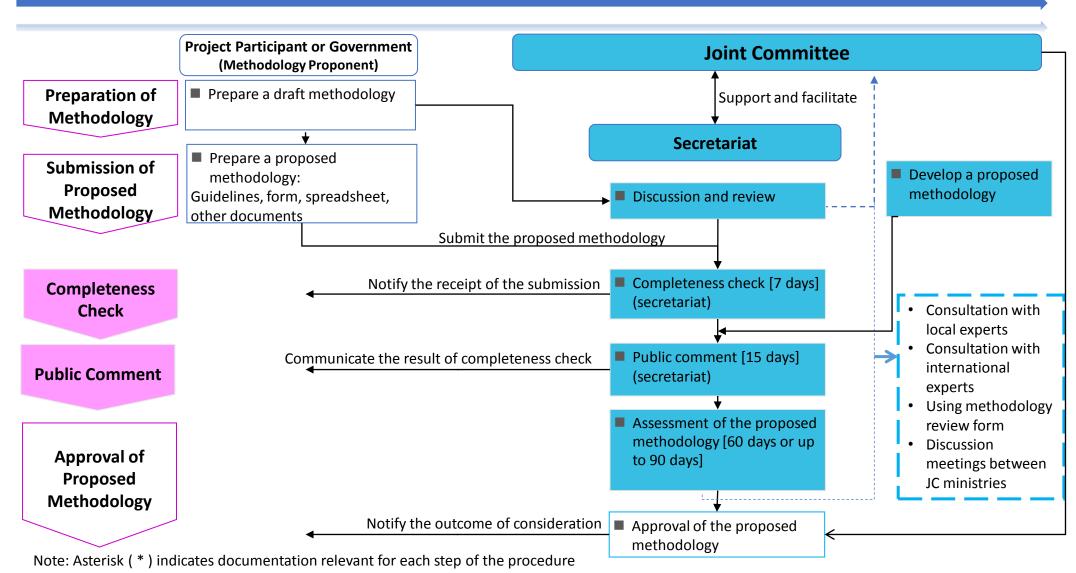
# The organizational and technical instruments matters



- The Joint Committee Meeting is the highest decision making process in JCM Scheme, it was held 2 times a year.
- 2. In the 1<sup>st</sup> JC Meeting we agreed for the following issues:
  - a. Indonesia JCM Secretariat establishment
  - b. Adoption of 1st JCM Rules & Guidelines, etc
- 3. In the 2<sup>nd</sup> JC Meeting we agreed for the following issues:
  - a. Adoption of the 1<sup>st</sup> methodology, the 2<sup>nd</sup> methodology was agreed via electronic decision
  - b. Designation of 7 TPE, etc
- 4. In the 3<sup>rd</sup> JC Meeting we agreed for the following issues:
  - a. Registered the 1<sup>st</sup> JCM project in the world for centrifugal chiller
  - b. Adoption of 2 methodologies for energy efficiency in convenient store, etc

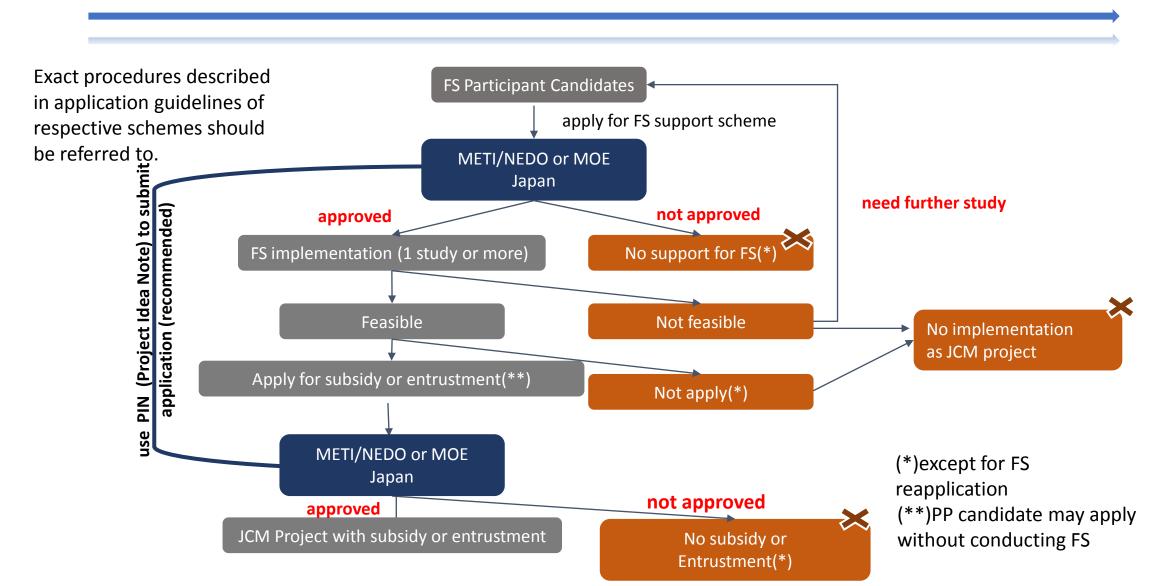


# JCM methodology development, an example of the transparency processes





# Steps in JCM Feasibility Studies (FS) to be a JCM project





# **Steps in JCM implementation projects**

Start of project (i.e design, procurement, etc)

Technology Implementation

Verification by TPE

**Credit issuance** 

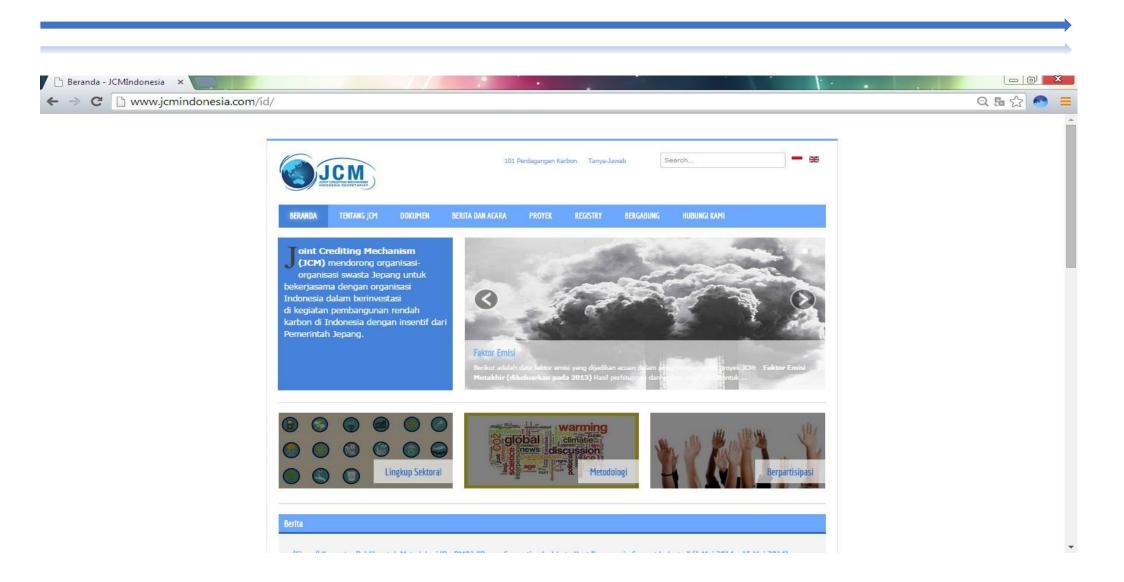
Submission & Validation of PDD

- The Embassy of Japan and Indonesia JCM Secretariat will arrange individual meeting with project participants from both sides.
- If requested, or when obstacles occur (such as location finding or related to government systems), the Secretariat can involve the processes.
- "Monitor the development of JCM related programs and implementation JCM of projects, taking into account sustainable development environmental criteria and integrity." (JCM Rule of Implementation Para 14 point (a) article (iii)).
- The Secretariat and GOI at least will do 1 site visit in this phase.

- The project participats choose the TPE from the JCM list.
- "The TPE describes all documentation supporting verification and makes such documentation available to the Joint Committee upon request." (JCM Guidelines for Verification and Validation Para 128)
- The TPE verify emission reduction
- Together with the project participant, TPE prepare a verification report and submit it to the Government of Indonesia through JCM Secretariat.
- "On the basis of a request for notification to each side issuance of credits submitted by project Joint participants, the Committee notifies both sides to issue the credits which were verified by the third-party entities." (JCM Rule of **Implementation** Para 10).
- The JC then will decide the issuance of the credit, including the credit shares for each involved parties.

# Visit our website at <u>www.jcmindonesia.com</u> for more information







# Terima kasih Mathum Muusum

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