



Coordinating Ministry
for Economic Affairs
Republic of Indonesia

Indonesia experiences on JCM development and its possible cooperation with other ASEAN countries

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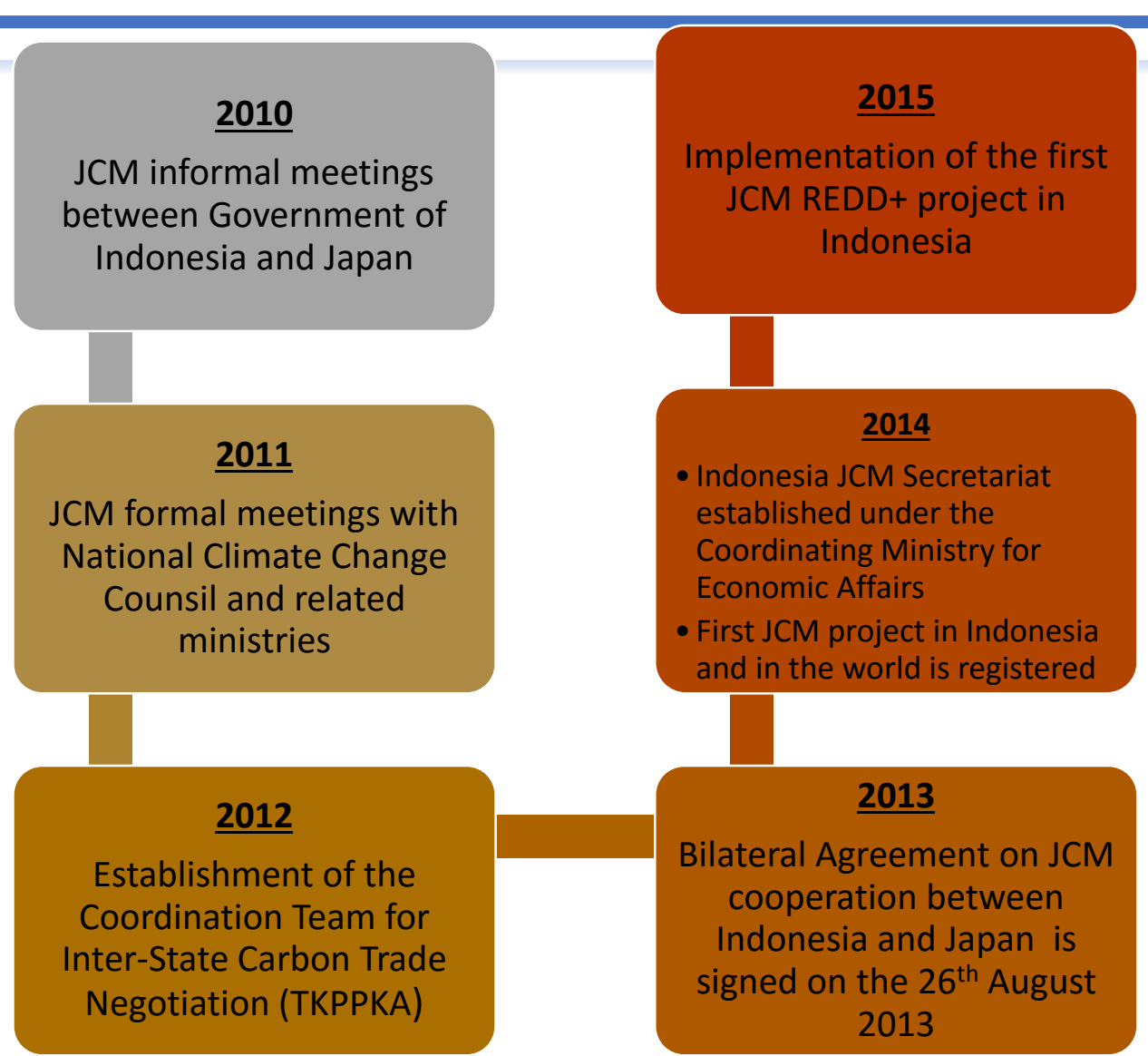
Presentation structure



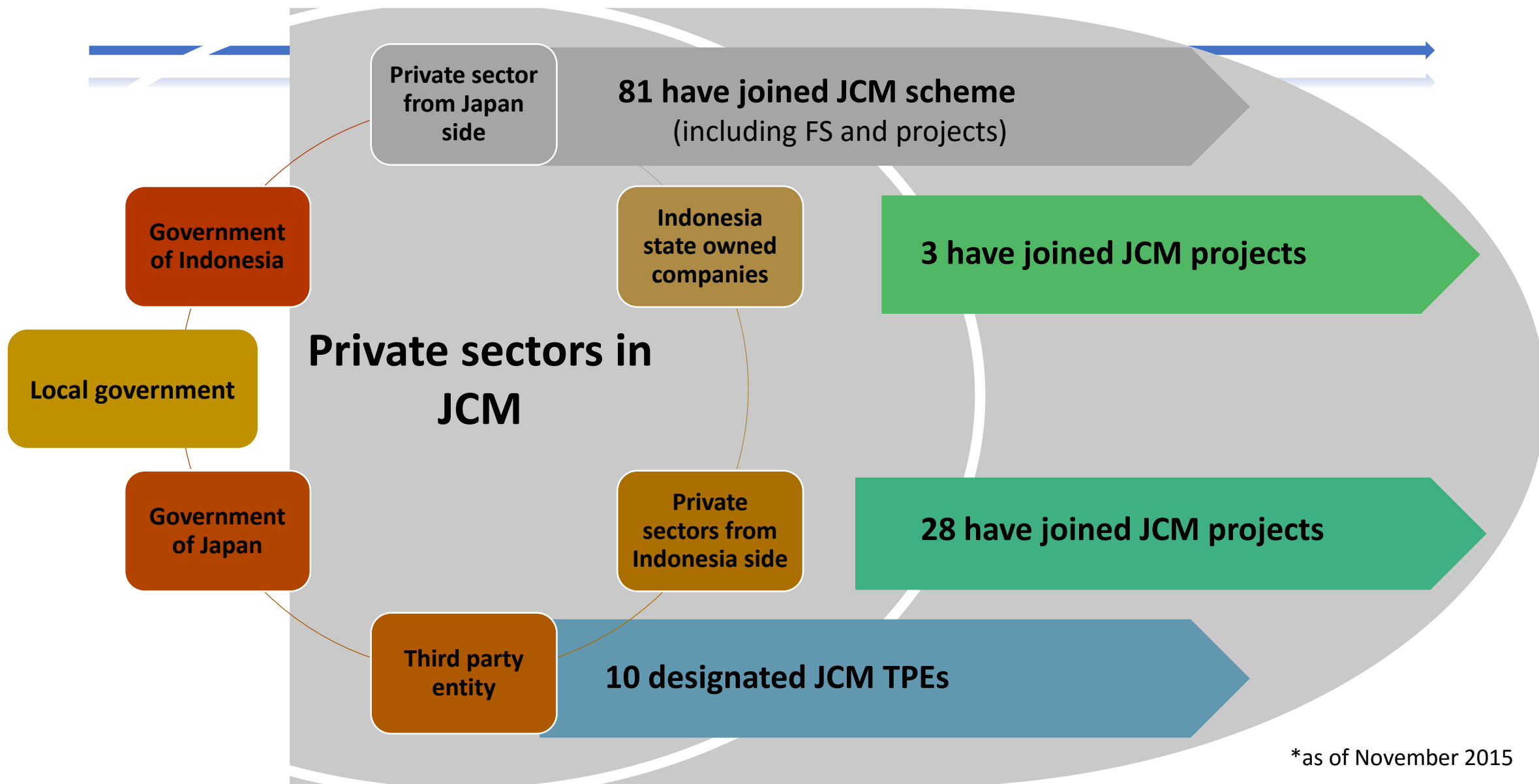
- 1. How to finance climate change mitigation in Indonesia**
- 2. The Joint Crediting Mechanism, a newly fast growing scheme in Indonesia**
- 3. How to disseminate JCM development, particularly for ASEAN countries**

Step by step of JCM development in Indonesia

- Indonesia and Japan had started the discussion and negotiation on JCM (previously BOCM/BOM) long before the agreement was signed.
- Currently, the development of JCM in Indonesia were under the Coordinating Ministry of Economic Affairs and supported with 6 other related ministries.
- Step by step of JCM development give us a lot of experiences in this issue.



JCM successfully engage both countries stakeholders to participate



*as of November 2015

JCM financing scheme in Indonesia



Since 2010 it has leveraged around more than US\$ **107 million** investment in the low-carbon development



Since 2010, JCM has mobilised grant from the Japanese government around US\$ **41 million** for low-carbon development in Indonesia



JCM scheme latest development

The JCM Project Progress

- 103 Feasibility Study have been done from 2010-2015
- 3 projects are registered as JCM projects.
- 17 JCM projects are now in our pipeline.
- 17 projects in energy efficiency, 2 projects in renewable energy, and 1 project in REDD+ (registered and pipeline).
- All projects are being developed with the cooperation between Indonesia and Japan participants.

The Registered Projects

1. "Energy Saving for Air-Conditioning and Process Cooling by Introducing High-efficiency Centrifugal Chiller" (first registered project under the JCM worldwide)
2. "Project of Introducing High Efficiency Refrigerator to a Food Industry Cold Storage in Indonesia"
3. "Project of Introducing High Efficiency Refrigerator to a Frozen Food Processing Plant in Indonesia"



The 1st JCM registered project:

- Collaboration between **Ebara Equipment & Systems** and **PT Primatexco Indonesia**
- Location: Batang, Central Java
- Estimated total emissions reduction **799 tCO₂ eq.** by 2020
- Annual **965 MWh** energy saving



List of JCM implementation projects in Indonesia

Project Implementation	Emission Reduction
Demonstration Project	
Remote Auto-Monitoring System for Thin-Film Solar Power Plant in Indonesia	1.433 tCO ₂ /year
Energy Saving by Optimum Operation at Oil Refinery	3.400 tCO ₂ /year
Utility Facility Operation Optimization Technology	58.000 tCO ₂ /year
Model Project	
Power generation by waste heat recovery in cement industry	122.000 tCO ₂ /year
Energy Savings at Convenience Stores	372 tCO ₂ /year
Energy saving through introduction of regenerative burners to the aluminum holding furnace of the automotive components manufacturer	856 tCO ₂ /year
Solar power hybrid System installation to existing base transceiver stations in off-grid area	2.786 tCO ₂ /year
Energy saving for textile factory facility cooling by high efficiency centrifugal chiller	118 tCO ₂ /year
Energy saving by double bundle-type heat pump	170 tCO ₂ /year
Introduction of High efficient Old Corrugated Cartons Process at Paper Factory	14.884 tCO ₂ /year
Reducing GHG emission at textile factories by upgrading to air-saving loom	566 tCO ₂ /year
Energy saving for air-conditioning and process cooling at textile factory	117 tCO ₂ /year
Installation of Gas Co-generation System for Automobile Manufacturing Plant	20,439 tCO ₂ /year
Energy Saving for Shopping Mall with High Efficiency Centrifugal Chiller	925 tCO ₂ /year
Energy Saving for Industrial Park with Smart LED Street Lighting System	900 tCO ₂ /year
Energy saving by introduction of high efficiency once-through boiler system in a film factory	428,5 tCO ₂ /year
REDD+ Model Project	
REDD+ Model Project in Boalemo district	100,000 tCO ₂ /year
Registered Project	
Energy saving for air-conditioning and process cooling by Introducing High-efficiency Centrifugal Chiller	114 tCO ₂ /year
Project of Introducing High Efficiency Refrigerators to a Food Industry Cold Storage in Indonesia	120 tCO ₂ /year
Project of Introducing High Efficient Refrigerator to a Frozen Food Processing Plant in Indonesia	21 tCO ₂ /year

How to link the Indonesia market based initiatives with INDC?

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.
- The credits are transferred to the buyer countries, while in Indonesia we receive co-benefits of the implementation.

VCS

- Relatively small compare to CDM, but still growing smoothly.
- Indonesia has the biggest REDD+ project under the VCS, this is until now is the only land based project under Indonesia VCS development.
- Some of the CDM projects change to be VCS projects because of the lack of CER's demand from EU-ETS.

Domestic 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.
- Any other types of market mechanism can be developed in Indonesia.

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.

**Indonesia
INDC
Market and non
market approaches?**

JCM is the newest mechanism to be developed, but the fastest growing.

Indonesia commitment to various sources of financing in INDC:

- Currently, the market based mechanism is also counted in the pre 2020 voluntary target as “supported target”.
- The finance, technology transfer, and capacity building are embedded in every development of the market based mechanism activities in Indonesia as well as no double counting and transparency.

.... Indonesia’s additional 12% of intended contribution by 2030 is subject to provision in the global agreement including through bilateral cooperations, covering technology/ deployment and transfer, capacity building, payment for performance mechanisms, technical cooperation and access to financial resources.

.... Indonesia will meet its unconditional commitments regardless of the existence of international market mechanisms. **Indonesia welcomes bilateral, regional and international market mechanisms** that **facilitate and expedite technology development and transfer, payment for performance, technical cooperation, and access to financial resources** to support Indonesia’s climate mitigation and adaptation efforts toward a climate resilient future.

Challenges in JCM development in Indonesia

1



Information sharing

2



Meetings

3



Site visits

We indicate that one of the biggest challenge in JCM is communication between stakeholders. In this matter, we develop a communication protocol as well as communication material to be used by the JCM stakeholders.

Another challenge is the JCM infrastructures development. It is not easy to develop new market based initiative infrastructures that must be transparent, based on scientific approaches, and using international standards, but still simple, robust, and easy to be implemented.

We got many support from JICA in these matters.

JCM Indonesia infrastructures development

Since JCM establishment in 2013, it has developed several guidelines, procedure, rules, registry system and methodologies

Guideline:

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

Procedure:

1. Project Cycle Procedure

Rules:

1. Rules of Implementation
2. Rules of Procedure

Methodologies:

We have developed 10 methodologies of energy efficiencies and renewable energy.

Registry system:

Developed with the collaboration with IGES and it is expected to connect with the National Registry

ASEAN countries in JCM

From 16 countries that signed JCM agreement with Japan, six countries are South East Asian Countries, members of ASEAN

- Indonesia
- Laos
- Cambodia
- Vietnam
- Thailand
- Myanmar



It means 60% of ASEAN member countries are also JCM countries!

ASEAN is one of the most dynamic economic regions of the world. Its economy is linked with its diverse energy resources, high-level urbanization, and rapid industrialization. ASEAN's growing economy in the last two decades has increased the concern of sustainable development in the face of deteriorating energy security, environmental pollution, and economic hardship in energy investment. However, opportunities exist to tackle these issues.

JCM potential development in ASEAN countries

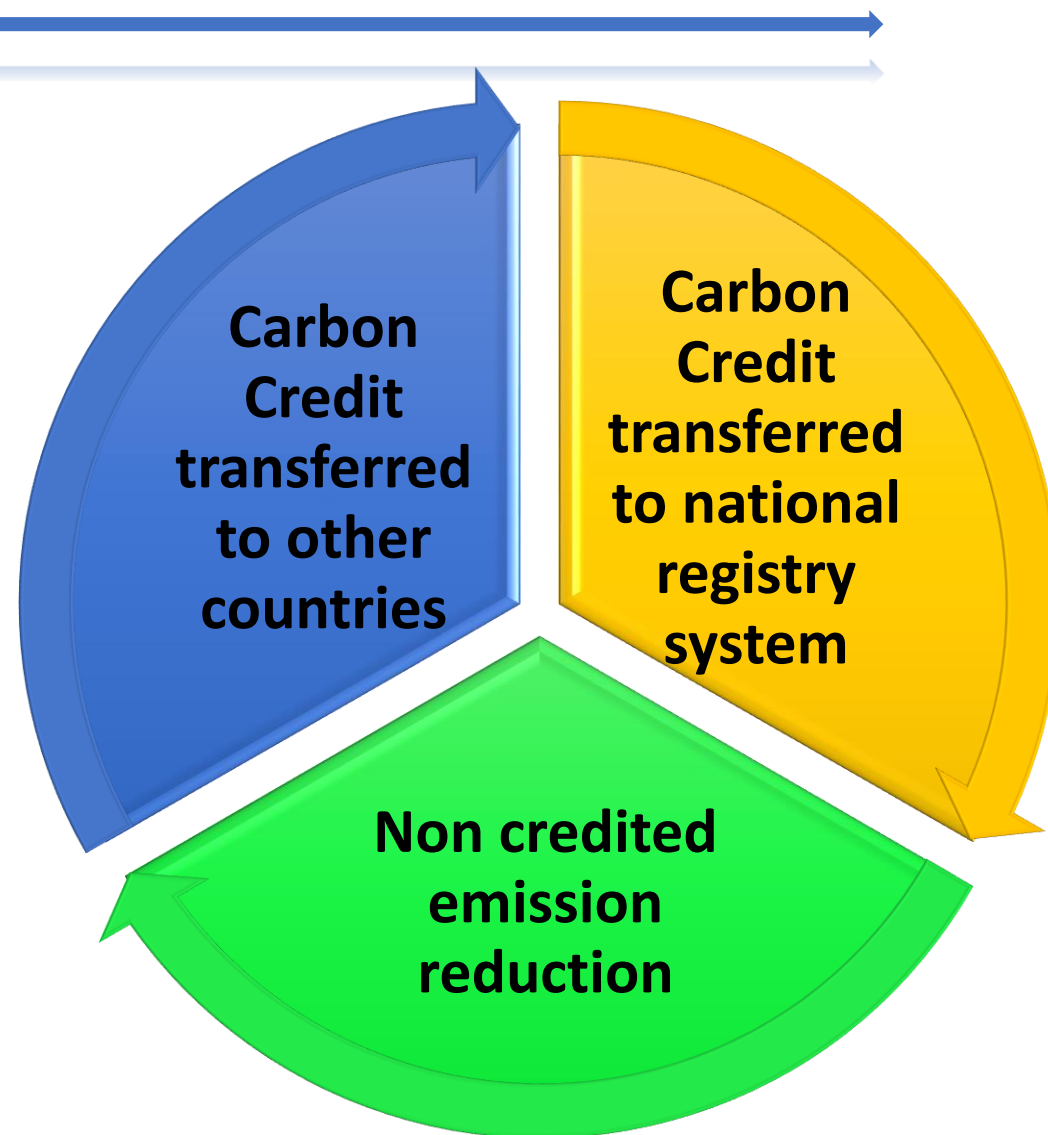
- Increasing **energy efficiency** (both supply and demand side), exploitation of **renewable energy** resources (biomass, hydro, geothermal, and solar), and an integrated approach on **energy resource management** are some of the potential mitigation actions that could promote JCM and other market based mechanism in ASEAN region.
- Reducing GHG emission from forest resources (through **REDD+**), and intensive sustainable agriculture practices (**Smart Agriculture**) are also other potential for ASEAN to engage in JCM and other market based mechanism. The forest cover in ASEAN is about 45 per cent compared to the world's average of 30.3 per cent, and it provides the natural habitat for up to 40 per cent of all species on Earth.
- ASEAN countries could enhance their climate change mitigation actions by utilized financial support from developed countries, including from Japan through the implementation of JCM scheme.

Possible cooperation in JCM development

- Indonesia and Thailand had started the cooperation in JCM informally by developing capacity building for Thailand stakeholders.
- Some other possible cooperation for JCM and other market based mechanism are methodology development (particularly for land based issues), financial support for project implementation, sustainable development plan and reporting development, and other JCM infrastructures development.
- ASEAN can play important roles on JCM development, joint projects or activities can be done by two or more ASEAN countries with Japan.
- The utilization of ADB support for JCM and ASEAN countries previous cooperation are very good bases to start JCM country cooperation.

ASEAN countries also can make cooperation on the utilization of carbon credit

- In the future, it should be discussed the utilization of JCM carbon credits among ASEAN countries.
- The JCM carbon credits issued can be utilized to fulfill the ASEAN countries needs on carbon credit as well as to enhance the market based mechanism initiatives.
- This lesson learn also very useful and important to implement the INDC.
- Finally, the biggest benefit still must be achieved by the surrounding communities and ecosystems of the host country.



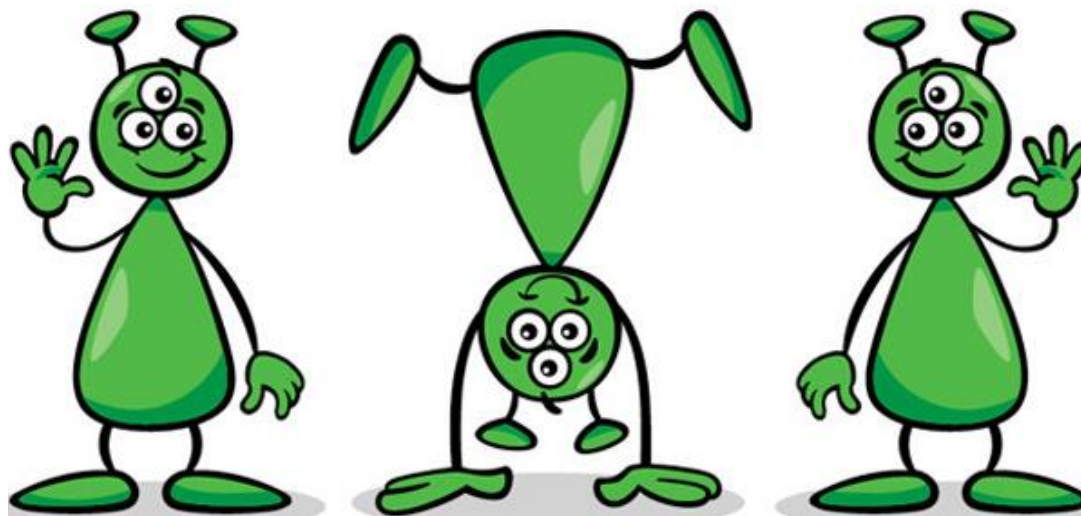
Visit our website at www.jcmindonesia.com



The screenshot shows the homepage of the JCM Indonesia website. At the top left is the JCM logo. To its right, there is a navigation menu with the following items: 101 Perdagangan Karbon, Tanya-Jawab, and a search bar. Below the logo and menu is a blue navigation bar with the following tabs: BERANDA, TENTANG JCM, DOKUMEN, BERITA DAN ACARA, PROYEK, REGISTRY, BERGABUNG, and HUBUNGI KAMI. The main content area features a large blue box on the left with the text: "Joint Crediting Mechanism (JCM) mendorong organisasi-organisasi swasta Jepang untuk bekerjasama dengan organisasi Indonesia dalam berinvestasi di kegiatan pembangunan rendah karbon di Indonesia dengan insentif dari Pemerintah Jepang." To the right of this box is a large image of a cloudy sky with a "Faktor Emisi" section below it. Below the main content area are three smaller sections: "Lingkup Sektoral" with a grid of icons, "Metodologi" with a word cloud, and "Berpartisipasi" with an image of raised hands. At the bottom, there is a "Berita" section.

Thank you!

Terima kasih!



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