Introduction: Parallel Session of Mitigation in Asia

- Lessons learnt from implementation and cooperation on low carbon development-

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Capacity Development Assistance for Low Carbon Development in Indonesia

JICA and the Coordinating Ministry for Economic Affairs, Indonesia have been conducting the technical cooperation project.

- Period: May 2014 - December 2017
- Project purpose: Capacity of the Joint Committee and the Secretariat of Joint Crediting Mechanism (JCM)* is strengthened towards low carbon development.

* “Bilateral Cooperation on the JCM for the Low Carbon Growth Partnership between Japan and Indonesia” was signed in August 2013.


Photo (Indonesia) : JICA / Project


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Photo (Indonesia) : JICA / Project

Capacity Development Assistance for Low Carbon Development in Indonesia

Coordinating Ministry for Economic Affairs Republic of Indonesia

1. Operationalization of JCM in Indonesia

- Institutional set-up of Indonesia JCM Secretariat
- Support for JCM project appraisal, registration and credit issuance
- Facilitating JCM process

2. Monitoring and Evaluating of JCM

- Support for monitoring and evaluation scheme of JCM
- Periodical report on monitoring and evaluation of JCM

3. Awareness Raising and Capacity Building

- Seminars and workshops for related ministries, private sector and others, such as Business Forum (2014, 2015), Indonesia Green Infrastructure Summit (2015), 3 year JCM anniversary event (2016)
- Information dissemination at international conferences
- Indonesia JCM website and PR/outreach materials

4. Policy Studies and Technical Assessment

- Linkage with JCM and other mitigation schemes
- Barriers and countermeasures in financing and promoting JCM
- Policy and financial Analysis for biogas power plant in palm oil sector

Session Background

Toward implementation of Paris Agreement / NDC

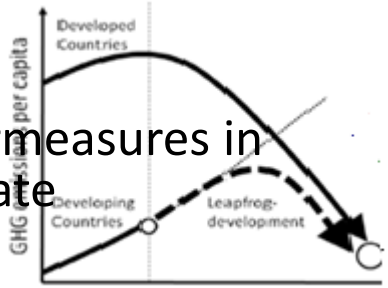
- Example of Indonesia. Targets are set for 2030 (29% from BAU). Preparation for implementation started.
- Some organizations work for it. Mentions possible barriers for implementation. For example:
  - Developing NDC Implementation Plan
  - Mobilizing Resources for NDC Implementation
  - Developing Enabling Conditions & Implementing NDC Actions
  - Monitoring Progress of NDC Implementation
- **Implementation of NDC would be challenging**
  - **Implementation would face variety of possible barriers. Due to barriers, expected achievement of mitigation outcomes could not be reached.**

Low Carbon Development

For implementation of NDC, the private is one of key players

- There are past and on-going programs and activities by the private: CDM, JCM, offsetting and others. Experiences accumulated.

Therefore, we would like to argues possible barriers and countermeasures in this session by having presentations from governments and private.



Session Overview

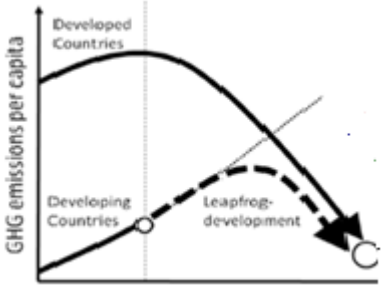
- **Objectives of session**: To understand progress of mitigation actions and argue way toward further promoting mitigation actions (with focus on the private sector and other stakeholders).
  - Share experiences and lessons learned as well as good practices (from on going initiatives such as CDM, JCM, offsetting and other initiatives/policy measures)
  - Discuss challenges/barriers for implementing mitigation measures and private stakeholder initiatives for low carbon development, especially promoting mitigation actions of private business operators. Give implication to NDC implementation
  - To accumulate and share good practices on addressing regulatory, financing and other barriers from participants through group discussion

Some examples of barriers/challenges for implementation of mitigation actions

Low Carbon Development

Regulatory	i.e. Insufficient policies/regulations and its enforcement
MOI	i.e. Lack of Financing, capacity, technologies
Organizational	i.e. issues related to decision-making in organization, knowledge, preference

Mitigation actions



Session Structure

Session is from 1:30 to 6:00

- **Introduction**
- **Presentations and Q&A**:

  Session I. Governmental initiatives: 1 to 1.5 hour (20mins for each presentation plus Q&A)

  1. MOEJ (Japan): International cooperation, R&D to project implementation
  2. TGO (Thailand): JCM Implementation in Thailand
  3. JCM Secretariat (➔JICA) (Indonesia) : JCM Implementation in Indonesia

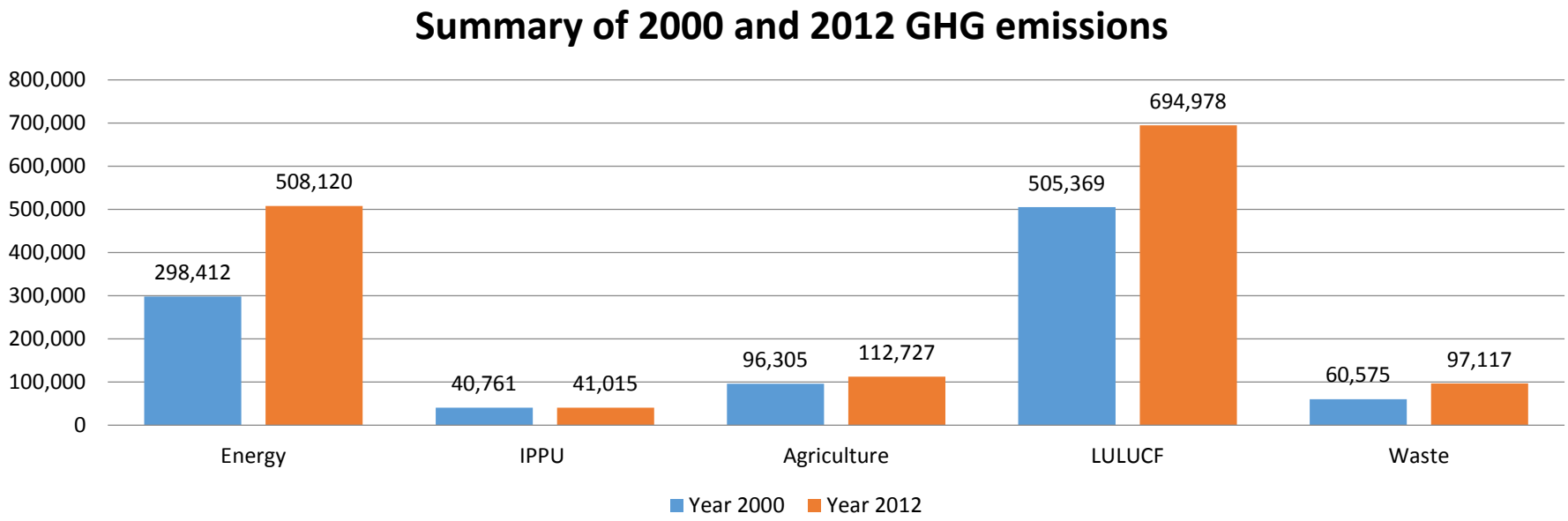
  Session II. Private initiatives: 1 to 1.5 hour (20mins for each presentation plus Q&A)

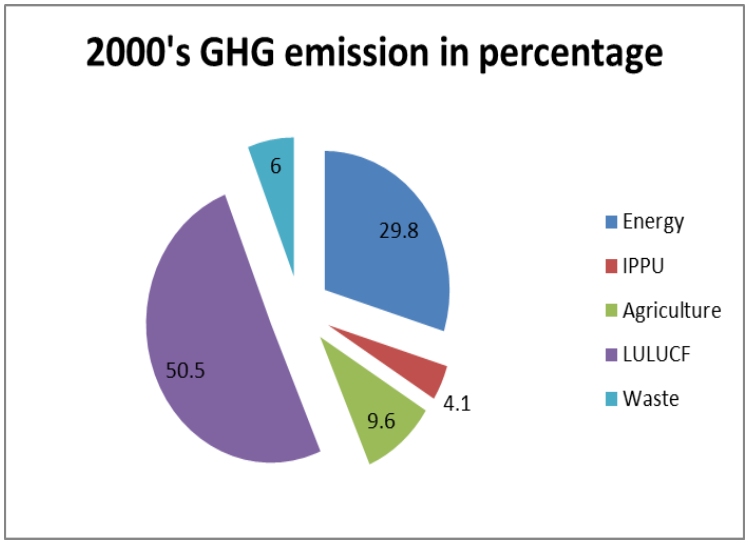
  1. PT Gikoko Kogyo Indonesia
  2. Toyota Daihatsu Engineering & Manufacuring Co., Ltd.
  3. Excellent Energy International Company Limited: ESCO

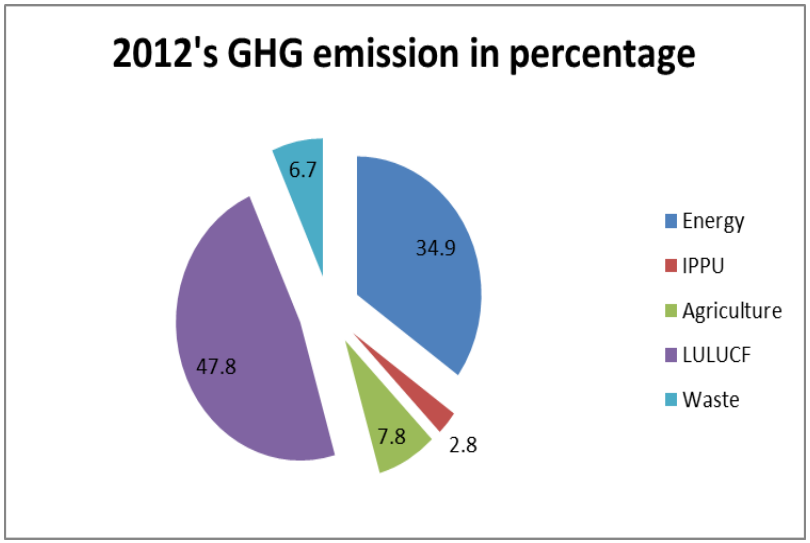
- **Small Group Discussion:** 1 hour (20mins for each)
  1. Barriers/Challenges to implementing mitigation
  2. Good practices / facilitative policies on mitigation
  3. Key future research topics/issues/questions as well as collaboration

Low Carbon Development

GHG Emissions in Indonesia







Source: Indonesia 1st BUR submission to UNFCCC

Indonesia's First NDC

- First NDC was submitted on November 9, 2016.
- Unconditional reduction: 29% by 2030
- Conditional reduction: 41% by 2030
- Most of emission reduction are done by Forestry and Energy Sectors

Table 1. Projected BAU and emission reduction from each sector category

No	Sector	GHG Emission Level 2010*	GHG Emission Level 2030 (MTon CO_2e)			GHG Emission Reduction (MTon CO_2e)		% of Total BaU		Annual Average Growth BAU (2010-2030)	Average Growth 2000-2012*
		MTon CO_2e	BaU	CM1	CM2	CM1	CM2	CM1	CM2		
1	Energy*	453.2	1,669	1,355	1,271	314	398	11%	14%	6.7%	4.50%
2	Waste	88	296	285	270	11	26	0.38%	1%	6.3%	4.00%
3	IPPU	36	69.6	66.85	66.35	2.75	3.25	0.10%	0.11%	3.4%	0.10%
4	Agriculture	110.5	119.66	110.39	115.86	9	4	0.32%	0.13%	0.4%	1.30%
5	Forestry**	647	714	217	64	497	650	17.2%	23%	0.5%	2.70%
	TOTAL	**1,334**	**2,869**	**2,034**	**1,787**	**834**	**1,081**	**29%**	**38%**	3.9%	3.20%

* Including fugitive

**Including peat fire

Notes: **CM1** = Counter Measure (*unconditional mitigation scenario*)
CM2 = Counter Measure (*conditional mitigation scenario*)

Source : First NDC in Indonesia

Key Questions

1. What kind of challenges/barriers did or will you possibly encounter?
   - Challenges in the process of NDC/national mitigation policies as well as possible future challenges for NDC implementation
   - Barriers in implementing mitigation projects
2. How to overcome the above challenges? What kind of policy measures are possibly useful and effective for NDC implementation and private sector mitigation actions?
   - Any good practices/lessons so far?
   - What are key countermeasures to effectively implement mitigation projects? (Incentives/financing measures/capacity development)?
   - For example, what is role of Market based mechanism (JCM) in NDC ? How we can effectively use it? How about other economic instruments (at domestic and international level)? I
3. What kind of researches / studies should be implemented?
   - What are key topics to be studies?
   - Any collaborations in the future?

Studies of Barriers in Indonesia

- Conducted several survey and interview studies on barriers/challenges to implementation on 1) CDM, 2) JCM and 3) palm oil sector mitigation actions in Indonesia
  - Several articles on CDM and JCM were already published

- Method (survey): apply analytic hierarchy process (AHP) to related stakeholders in Indonesia

Studies of Barriers in Indonesia

- Categories of barriers (example)
  - CDM/JCM policies and rules (international / domestic)
  - Carbon Market Barriers
  - Domestic policy Issues not specific related to CDM/JCM
  - Financing barriers
  - Knowledge and capacity barriers

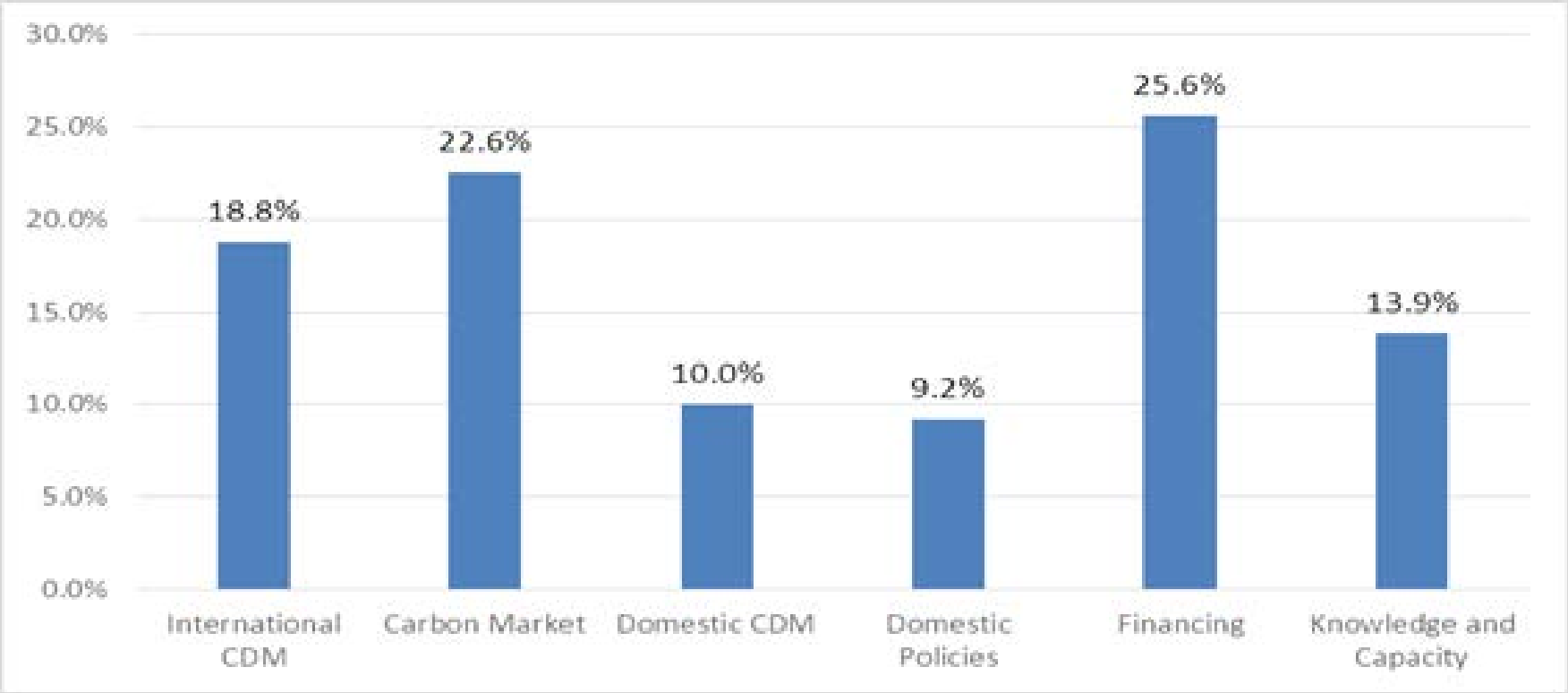
Findings from CDM in Indonesia

- Early period of CDM implementation (until 2008), major barriers are identified by interviews:
  - Financing barriers: i.e. difficult to conclude financing/loan
  - Domestic policy Issues not specific related to CDM: i.e. PPA is difficult to be made

- Our survey results in 2013 shows that key barriers of CDM implementation in Indonesia are:
  - Financing Barriers
  - Carbon Market Barriers
  - International CDM Policies and Rules

  (see next slide for more details)

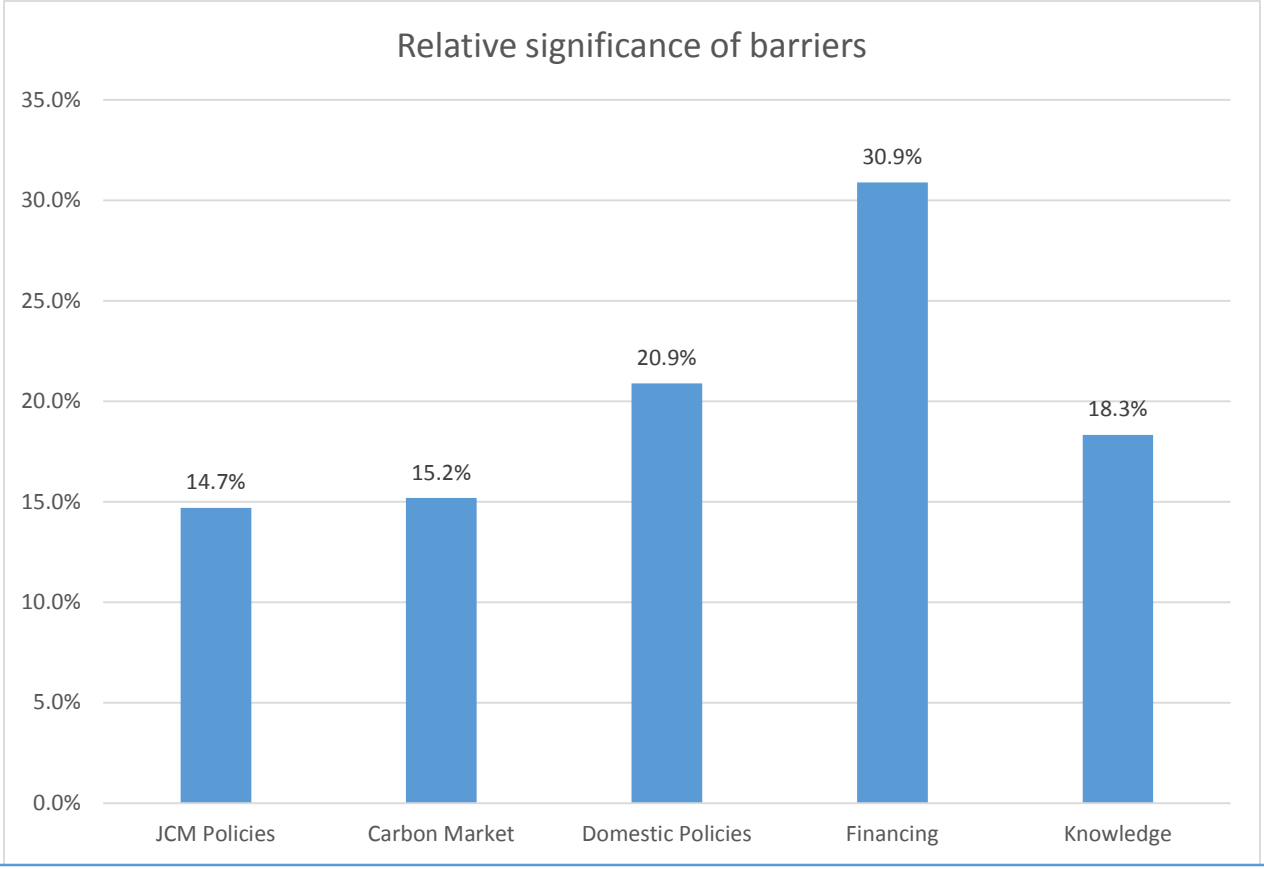
3 Significant Barriers to CDM project implementation in Indonesia



- Financing Barriers
- Carbon Market Barriers
- (barriers related to) International CDM Policies and Rules

Source: Ichihara and Uchida (2014) “Prioritizing Barriers to Implementing More CDM Projects in Indonesia: An Application of AHP”

Survey Results on Potential JCM Barriers in Indonesia



- Financing Barriers
- Domestic Policies and Rules not specifically related to JCM
- Knowledge and Capacity Barriers

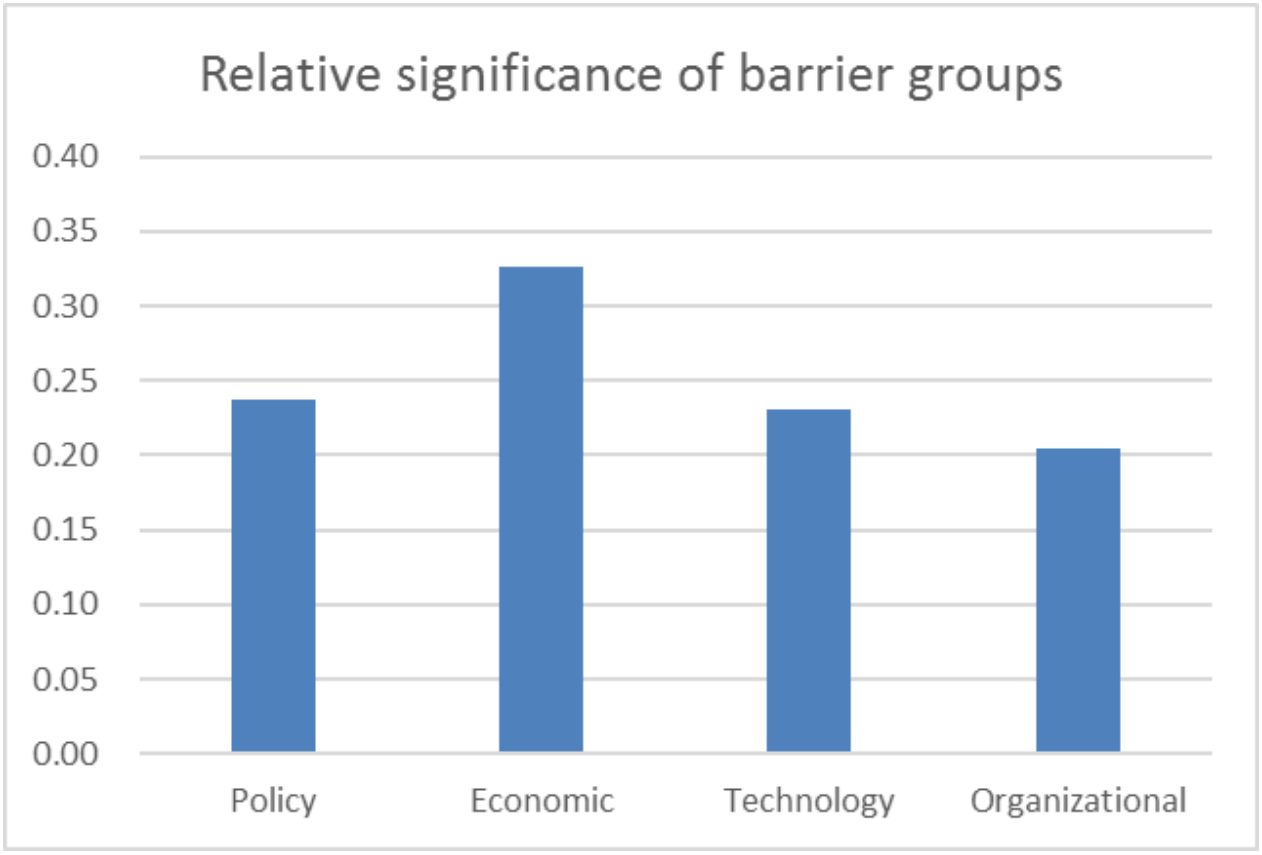
Barriers of JCM in Indonesia

- One of challenges is related to procurement rules in the case that local governments are project proponents. Still many rooms for future JCM project implementation.
  - Mismatching budgeting plan cycle: Harmonizing process in Japan and Indonesia sides.
  - Difference in Procurement System: Harmonizing system of Government of Indonesia and JCM system
- Barriers related to Policies and rules are crucial.
  - Regulations related to tariffs. etc

Financing Barriers (for EE) in Indonesia

- JICA project conducting a study on barriers and options to implementing energy efficiency projects in Indonesia. Some of initial findings on barriers are:
  - Regulatory barriers
  - Barriers related to financing institutions
    - Lack of focus on green development and inadequate institutional support in financing institutions
    - High Transaction cost for project assessment and financing
    - Lack of technical capacity in clean energy investment
  - Barriers related to project proponents and third parties
    - Limited capacity of raising funds invalidates the project by project developers
    - ESCO industry grows slow

Survey results on Barriers on palm oil sector (POME) in Indonesia



- Economic and Financing Barriers include PPA tariff issue (low), high investment cost, obtaining in difficulty in financing, etc.