

# **Assessment of Market-Based Policy Options for Scaling Up Mitigation Actions in Indonesia**

**August 21<sup>st</sup>, 2018  
Jakarta, Indonesia**

**Assessment of Market-Based Policy Options for  
Scaling Up Mitigation Actions in Indonesia**  
**Policy Mapping and Gap Analysis Report**

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# Background


# Assessment of Market-Based Policy Options for Scaling Up Mitigation Actions in Indonesia - MBI Data Collection and Analysis Report

## Background

Indonesia actively pursues efforts in combating the adverse effects of climate change. On an international level, Indonesia ratified the Paris Agreement, and through its NDC, has set an unconditional reduction target of 29% and a conditional reduction target up to 41% of the business as usual scenario, by 2030. On a national level, Indonesia has several relevant policies and regulations which mandate actions related to or leading to emission reductions.



In Indonesia, as in any other country, the government budget alone is considered insufficient in achieving the NDC and other climate change policy targets. Therefore, it is crucial to create an environment to leverage private and public participation in scaling up of mitigation actions.



As part of these efforts, the Government of Indonesia is reported to be considering market-based instruments (MBI) options for the purpose of cost-effective delivery of real, additional, and permanent emission reductions.

# Assessment of Market-Based Policy Options for Scaling Up Mitigation Actions in Indonesia - MBI Data Collection and Analysis Report

## The Assignment

The outcomes of this assignment are expected to become the basis for Indonesian policy makers in designing, implementing, and operating market-based policy instruments or approaches to scaling up of mitigation actions in Indonesia ultimately leading to the achievement its NDC targets.

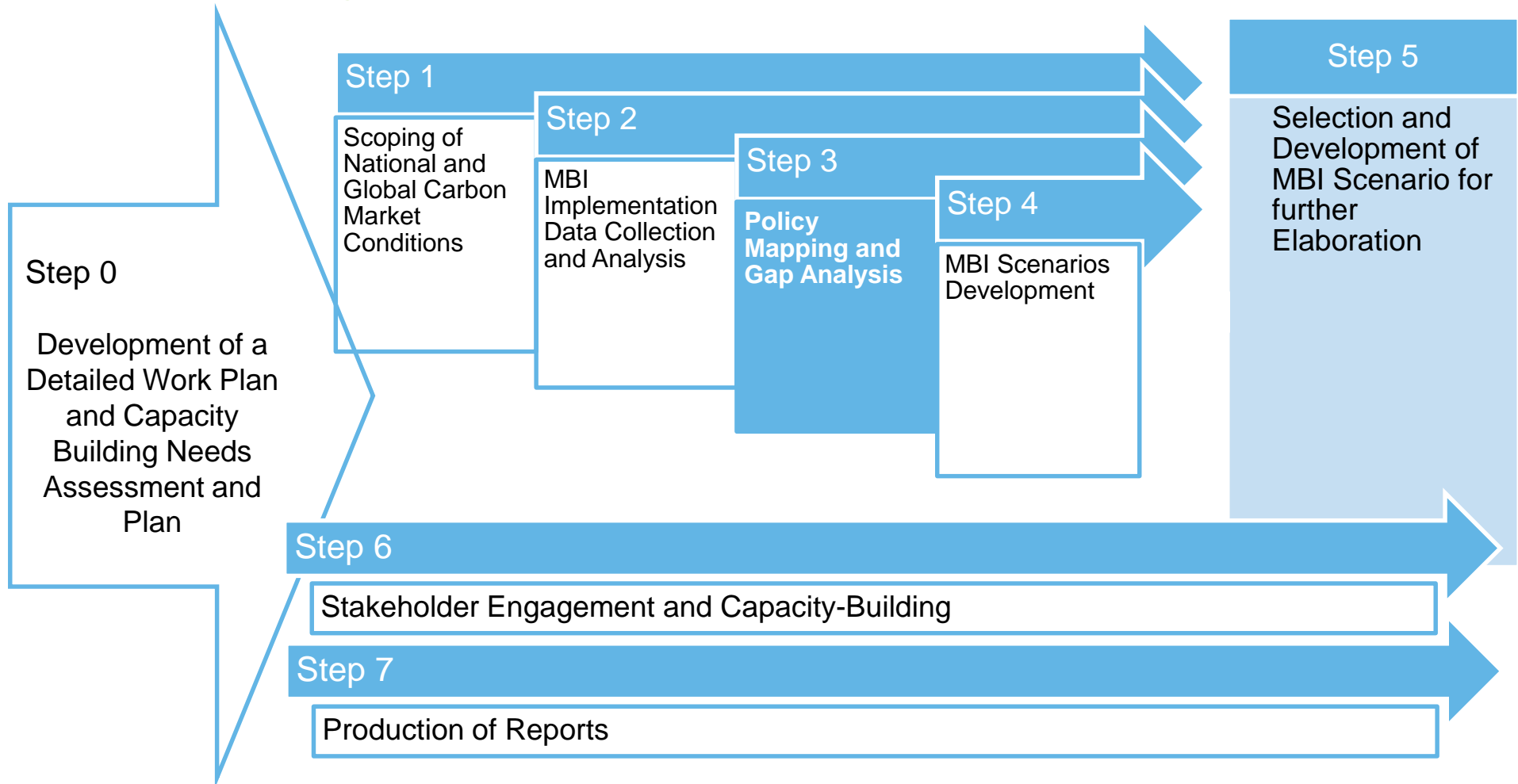
The key output under this assignment is a comprehensive implementation assessment of different market-based policy options under the Indonesia's context with a strong emphasis on the power and industry sectors. As per the ToR, the work is expected to include the following:

- Provide comprehensive information of market-based policy options to various stakeholders such as the Government of Indonesia, private sectors, NGOs, and academic institutions interested in the implementation of market-based policy options to scale up climate change mitigation;
- Outline plausible market-based policy options for Indonesia and its development and implementation scenarios;
- Reliably and in defensible manner, estimate and assess the socio-economic risks and impacts associated with the market-based policy options; and
- Provide a reasonable implementation scenario of a selected market-based policy option that is deemed as most suitable for Indonesia in order to scale-up its mitigation actions and fulfill NDC commitment and accompany the scenario with road map of follow up actions.

# Assessment of Market-Based Policy Options for Scaling Up Mitigation Actions in Indonesia - MBI Data Collection and Analysis Report

The Carbon Market Scoping report is the Step 3 of this assignment.

## Tasks under the Assignment



# Assessment of Market-Based Policy Options for Scaling Up Mitigation Actions in Indonesia - Policy Mapping and Gap Analysis

The Policy Mapping and Gap Analysis Report will provide an overview of the policies which have a direct or indirect relation to GHG emission reductions and/or may affect Indonesia's ability to use market-based mechanisms to scale up climate change mitigation.

## Objectives and scope of the Policy Mapping and Gap Analysis

### Objectives

- 01** Analyze the policies which have a direct or indirect relation to GHG emission reductions and/or may affect Indonesia's ability to use market-based mechanisms to scale up climate change mitigation.
- 02** Analyze the potential to generate demand for market-based instruments
- 03** Identify and analyze gaps within policies and initiatives that may affect the Government of Indonesia's ability to use market-based mechanisms



# Policies related to climate change and green economy

# Assessment of Market-Based Policy Options for Scaling Up Mitigation Actions in Indonesia - Policy Mapping and Gap Analysis

## Policy readiness for the implementation of carbon pricing instruments

<b>Carbon reduction objectives</b>	<ul style="list-style-type: none"><li>✓ National action plan to reduce greenhouse gas emissions focusing on the sectors of agriculture, forestry &amp; peatlands, energy &amp; transportation, industry, and waste management (by 26% with its own efforts and 41% with international support by year 2020) (PERPRES no. 61/2011)</li><li>✓ Commitment to reduce GHG emissions through its NDC (<b>29% by its own efforts and by 41% with support from the business</b> as usual level by the year 2030) (UU no.16/2016)</li></ul>
<b>Enabling environment</b>	<ul style="list-style-type: none"><li>✓ National greenhouse inventory (PERPRES no.71/2011)</li><li>✓ Operationalization of the inventory: calculation method and MRV system (PERMEN No.P73/MENLHK/ SETJEN/KUM.1/12/2017) (PERMEN no.15/2013 and PERMEN No.P72/MENLHK/ SETJEN/KUM.1/12/2017)</li><li>✓ National registry system (PERMEN no.71/2017)</li></ul>
<b>Carbon pricing instruments</b>	<ul style="list-style-type: none"><li>✓ UU no.17/2004 (Kyoto protocol) is the first legislation to support carbon pricing in Indonesia. However, its relevance is undermined due to the collapse of the carbon markets and the CDM</li><li>✓ Acknowledgement that to preserve the environmental function, the development of environmental economic instruments is mandatory (UU no.32/2009)</li><li>✓ Introduction of <b>domestic carbon trading mechanism</b> involving certified emission reduction (PERMEN P.50/Menhut-II/2014). <b>This can be the basis in formulating rules and regulations for a domestic carbon offset mechanism</b> which can complement the implementation of a market-based instrument.</li><li>✓ Sustainable finance and green bonds (no.51/POJK.03/2017, no.60 /POJK.04/2017)</li></ul>

# Assessment of Market-Based Policy Options for Scaling Up Mitigation Actions in Indonesia - Policy Mapping and Gap Analysis

## The environmental economic instrument (PP no.46/2017)

### Background

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- ✓ Provides a more detailed definition and description of the environmental economic instrument
- ✓ Set of economic policies to encourage the central government, local governments, and everyone toward the preservation of environmental functions

### Environmental economic instruments available

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#### Environment tax

- Central and regional tax rate is imposed on person who utilizes natural resources based on environmental impact criteria.
- Provides the framework for the implementation of a **carbon tax system**
- Could be built upon to introduce taxation specifically covering greenhouse gas emissions

#### Subsidies

- Provided for a number of cases where there is a positive impact on the environment
- Can support the implementation of a market-based instrument (**result-based financing mechanism**)

#### Emission Trading System

- Describes the development of an ETS by the central and local governments
- Set the framework for the development of a **domestic emission trading system**
- Obligates the implementation of an ETS within 7 years after the government regulation comes into effect

#### Environmental Service Payment System (ESPS)

- Performance based binding agreement upon which payments are transferred from a provider to the user
- Set the framework for the implementation of an **energy certificate system**
- Can also support the implementation of a **result-based financing**

#### Environmental Protection and Management Performance Award System

- A performance award system on environmental protection and management
- Set the framework for the implementation of a **result-based financing mechanism**
- Can also serve as the framework for the implementation of an **energy efficiency certificate system**

# Policy gap analysis

# Assessment of Market-Based Policy Options for Scaling Up Mitigation Actions in Indonesia - Policy Mapping and Gap Analysis

## List of constitutional laws and regulations (1/3)

Indonesian government policies and legislations comprise of several layers or hierarchy of laws and regulations which have been proposed and approved at different stages of government levels.

This policy analysis cover policies from the central government which includes, in hierarchical order, the Indonesian constitution laws, government regulations, presidential regulations, and ministerial regulations.

The existing laws and regulations which are relevant to climate change mitigation and may affect the country's ability to use MBIs are listed in the following slides

No	Description	Type	Policy No	Relevancy
1	Ratification of the UNFCCC	Constitutional law	UU no.6/1994	climate change
2	Energy	Constitutional law	UU No.30/2007	energy, power sector
3	Environmental Protection and Management	Constitutional law	UU No.32/2009	climate change, environment
4	Industries	Constitutional law	UU No.3/2014	industry sector, environment
5	Ratification of Paris Agreement to the UNFCCC	Constitutional law	UU No.16/2016	climate change
6	Energy Conservation	Government regulation	PP No.70/2009	energy, power sector
7	National Energy Policy	Government regulation	PP No.79/2014	energy, power sector
8	National Industrial Development Master plan of 2015-2035	Government regulation	PP No.14/2015	industry sector
9	Economic Instrument of the Environment	Government regulation	PP No.46/2017	environment

# Assessment of Market-Based Policy Options for Scaling Up Mitigation Actions in Indonesia - Policy Mapping and Gap Analysis

## List of constitutional laws and regulations (2/3)

No	Description	Type	Policy No	Relevancy
10	National Action Plan in Reducing GHG Emission	Presidential regulation	PERPRES No.61/2011	climate change, environment
11	National GHG Inventory	Presidential regulation	PERPRES No.71/2011	climate change, environment
12	The Acceleration of Development of Electricity Infrastructure	Presidential regulation	PERPRES no.4/2016	energy, power sector
13	General Plan on National Energy	Presidential regulation	PERPRES No.22/2017	energy, power sector
14	Granting of Taxation and Customs Facilities for Activity of Utilization of Renewable Energy Resources	Ministerial regulation	PERMEN no.21/PMK.011/2010	energy, power sector
15	Company Performance Rating Assessment Program in Environmental Management (revoked and replaced by PERMEN No.3/2014)	Ministerial regulation	PERMEN no.06/2013	Industry sector, environment
16	Company Performance Rating Assessment Program in Environmental Management	Ministerial regulation	PERMEN no.03/2014	Industry sector, environment
17	Indonesian Certified Emission Reduction	Ministerial regulation	PERMEN P.50/Menhut-II/2014	climate change
18	Preparation Guidelines of Green Industry Standard	Ministerial regulation	PERMEN no.51/M-IND/PER/6/2015	environment, industry sector

# Assessment of Market-Based Policy Options for Scaling Up Mitigation Actions in Indonesia - Policy Mapping and Gap Analysis

## List of constitutional laws and regulations (3/3)

No	Description	Type	Policy No	Relevancy
19	The Use of Renewable Energy for the Provision of Electricity	Ministerial regulation	PERMEN No.50/2017	energy, power sector
20	Green Industry Certification Agency	Ministerial regulation	PERMEN No.41/M-IND/PER/12/2017	environment, industry sector
21	Guidelines on the Administration and Reporting of the National GHG Inventory	Ministerial regulation	PERMEN No.P73/MENLHK/SETJEN/KUM.1/12/2017	climate change, environment
22	Implementing Guidelines on the MRV of Climate Change Control Actions and Resources	Ministerial regulation	PERMEN No.P72/MENLHK/SETJEN/KUM.1/12/2017	climate change, environment
23	Quality Standard of Exhaust Gas Emission for Cement Business and/or Industry	Ministerial regulation	PERMEN No.P.19/MENLHK / SETJEN/KUM.1/2 /2017	environment, industry sector
24	The Issuance of and Requirements for the Issuance of Environment-Oriented Debt Securities (Green Bond)	Financial service authority regulation	No.60 /POJK.04/2017	environment, green economy
25	The Application of Sustainable Finance for Financial Service Providers, Issuers and Publicly Listed Companies	Financial service authority regulation	No.51 /POJK.03/2017	environment, green economy

# Assessment of Market-Based Policy Options for Scaling Up Mitigation Actions in Indonesia - Policy Mapping and Gap Analysis

## Policies related to the power sector (1/2)

The policy analysis related to the power sector analyzes the potential contribution of a market based instruments to the sector.

<b>Energy management</b> (UU no.30/2007)	<b>Objective:</b> Achieve energy independency and secure supply of energy <b>Potential contribution:</b> Support the achievement of this law's objectives to fulfill the national energy demand <b>Emission Trading</b> <b>Energy Certificates</b> <b>Result-Based Financing</b>
<b>National energy conservation development</b> (PP No.70/2009)	<b>Objective:</b> Implementation of energy conservation (provision of incentives) <b>Potential contribution:</b> Provide further incentives for energy conservation through the implementation of a MBI such as an energy efficiency certificate system <b>Emission Trading</b> <b>Energy Certificates</b>
<b>Tax and custom facility for renewable energy</b> (PERMEN no. 21/PMK.011/2010)	<b>Objective:</b> Support the utilization of renewable energy resource by providing tax and custom facility <b>Potential contribution:</b> Provide further incentives for renewable energy through the implementation of a MBI such as a renewable energy certificate system <b>Emission Trading</b> <b>Energy Certificates</b>



# Assessment of Market-Based Policy Options for Scaling Up Mitigation Actions in Indonesia - Policy Mapping and Gap Analysis

## Policies related to the power sector (2/2)

<p><b>National energy policy</b> (PP no.79/2014)</p>	<p><b>Objective:</b> Describes key national targets for energy development <b>Potential contribution:</b> Provide further incentives for renewable energy through the implementation of a MBI such as a renewable energy certificate system</p> <p><b>Emission Trading</b>      <b>Energy Certificates</b></p>
<p><b>Electricity infrastructure acceleration development</b> (PERPRES no.14/2017)</p>	<p><b>Objective:</b> Outline the electricity infrastructure development mainly on establishment of power stations and to develop transmission lines for electricity distribution <b>Potential contribution:</b> Implementation of a MBI would support the acceleration of electricity infrastructure development by providing incentives for the installation of new renewable energy plants</p> <p><b>Emission Trading</b>      <b>Energy Certificates</b>      <b>Result-Based Financing</b></p>
<p><b>Utilization of renewable energy</b> (PERMEN no.50/2017)</p>	<p><b>Objective:</b> Regulates the utilization of renewable energy to supply electricity <b>Potential contribution:</b> Implementation of a market-based instrument could address uncertainty issues on the feed-in-tariff system</p> <p><b>Emission Trading</b>      <b>Energy Certificates</b>      <b>Result-Based Financing</b></p>

# Assessment of Market-Based Policy Options for Scaling Up Mitigation Actions in Indonesia - Policy Mapping and Gap Analysis

## Policies related to the industry sector

The policy analysis related to the industry sector analyzes the potential contribution of a market based instruments to the sector.

<p><b>Cement industry emission reduction roadmap</b> (PERMEN 12/2012 )</p>	<p><b>Objective:</b> Introduction of a Roadmap to reduce GHG emissions in the cement industry  <b>Potential contribution:</b> Implementation of a market-based instrument could address uncertainty issues on the feed-in-tariff system</p> <p><b>Emission Trading</b>    <b>Energy Certificates</b>    <b>Carbon Tax/Levy</b>    <b>Result-Based Financing</b></p>
<p><b>National industrial activities</b> (UU no.3/2014)</p>	<p><b>Objective:</b> to realize green industry in Indonesia through policy formulation, strengthening institutional capacity, standardization, and provision of facilities  <b>Potential contribution:</b> Sets the framework for an MRV system for the industry sector.</p> <p><b>Emission Trading</b>    <b>Energy Certificates</b>    <b>Carbon Tax/Levy</b>    <b>Result-Based Financing</b></p>
<p><b>Master plan of national industrial development</b> (PP no.14/2015)</p>	<p><b>Objective:</b> Sets the vision for industrial development in Indonesia  <b>Potential contribution:</b> implementation of a market-based instrument can support green industry development</p> <p><b>Emission Trading</b>    <b>Energy Certificates</b>    <b>Carbon Tax/Levy</b>    <b>Result-Based Financing</b></p>
<p><b>Guidelines of Green Industry Standard</b> (PERMEN no.51/2015 PERMEN no.41/2017)</p>	<p><b>Objective:</b> Guidelines for green industry standards and certification method  <b>Potential contribution:</b> Establishes the framework for an MRV system and for third party auditors for the validation and verification activities of a market-based instrument</p> <p><b>Emission Trading</b>    <b>Energy Certificates</b>    <b>Carbon Tax/Levy</b>    <b>Result-Based Financing</b></p>

# Enabling environment

# Assessment of Market-Based Policy Options for Scaling Up Mitigation Actions in Indonesia - Policy Mapping and Gap Analysis

## Taxation and fiscal policy in Indonesia

Taxation and fiscal policy analysis, although not directly related to carbon pricing, are crucial in the development of market-based instruments as many of them involve either the development of new taxes or intervene in the national and regional fiscal policy process.

### Challenges to the Introduction of Potential New Taxes

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01

#### Challenges Related to the Current Tax System

Research suggests that adding more taxes to an already complex system might discourage investment for the private sector. The DGT, given its current capacity, might also not be able to enforce new taxes in these conditions.

02

#### Challenges Related to the Implementation of Reforms

Reforming the tax system in Indonesia has already proved challenging in the past. Some challenges involve political constraints, legal and procedural constraints and organizational constraints.

These suggest that the introduction of new taxes might be challenging in Indonesia.

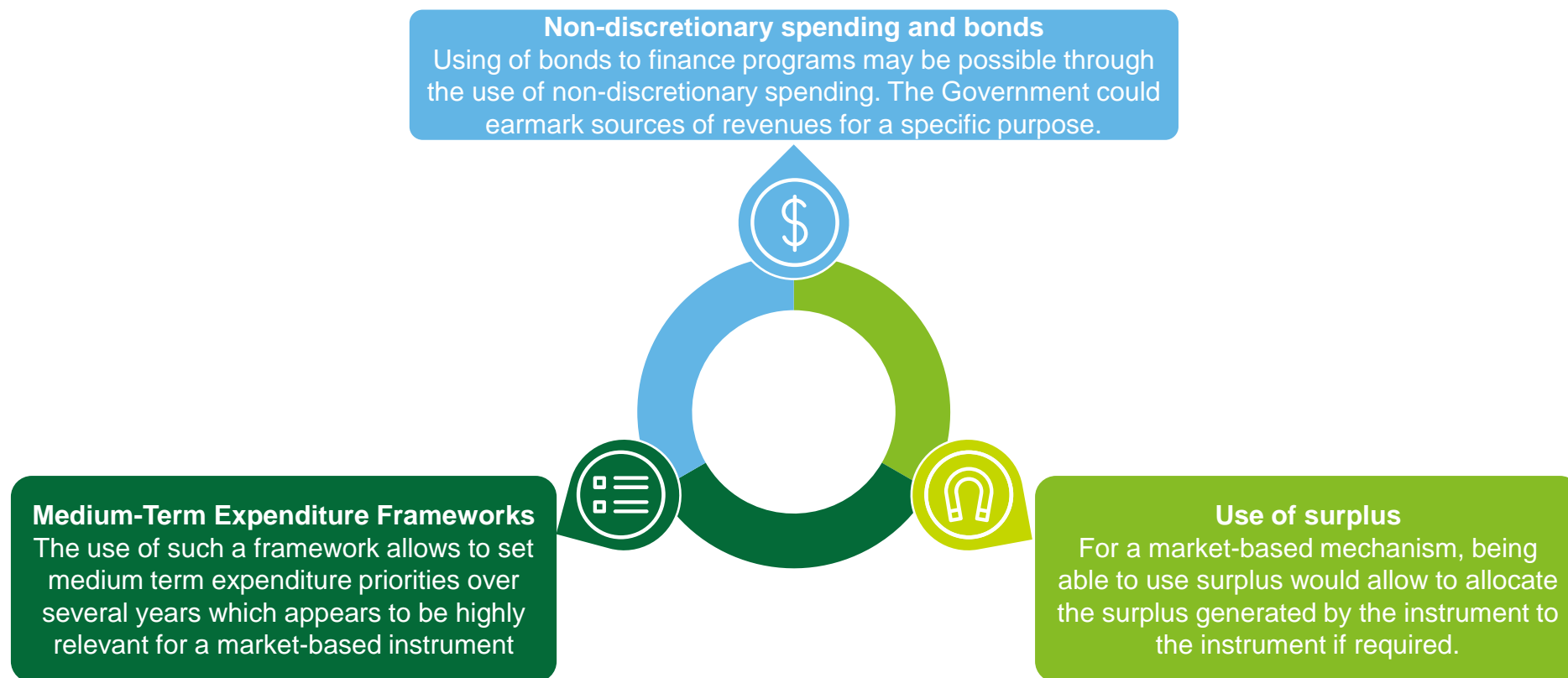
# Assessment of Market-Based Policy Options for Scaling Up Mitigation Actions in Indonesia - Policy Mapping and Gap Analysis

## Budgeting process in Indonesia

It is important to understand how the budget is allocated for the implementation of a market-based mechanism.

### Opportunity analysis for budget allocation

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# Assessment of Market-Based Policy Options for Scaling Up Mitigation Actions in Indonesia - Policy Mapping and Gap Analysis

## Procurement process in Indonesia

- ✓ It is important consider the possibilities and limitations of the current procurement system and process in order to identify the most relevant option for Indonesia for a market-based mechanism.
- ✓ The operator will have to be able to purchase the emission reduction units or carbon credits produced by the GHG mitigation projects. This is especially true for a result-based financing scheme.

## Opportunity analysis under public procurement rules

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### Definition of goods

Any object whether tangible or intangible, movable or immovable, that can be traded, consumed, used or utilized.

### ➔ Carbon credits could be classified as goods under this regulation

Given the structure of a result-based finance scheme, where the result payer pays for the outcome to a specific provider, the mechanism would have to use **the direct procurement method** or might also consider the **direct appointment method**.

## Emission Reduction Purchase Agreement (ERPA) in the Context of a Result-Based Financing Scheme

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- ✓ Under the scenario of a result-based financing scheme implementation, the **Government acts as the result payer** and **purchases emission reduction units**
- ✓ ERPAs are specifically developed to secure a contract to purchase emission reduction credits that are expected to be generated by the GHG mitigation project and **may cover several years**
- ✓ There are no specific provisions pertaining to the ability of the Government to enter into an ERPA. However, in **the context of a general purchase agreement, a state-owned enterprise may be able to enter into a multiyear purchase agreement**

A much simpler model may also be considered:

- ✓ Project participants of the RBF scheme report the achievements of their GHG emission reduction projects and the emission reduction credits are purchased directly by the Government
- ✓ No need to have ERPAs with the GHG mitigation project participants as the credits will be purchased when they have actually been issued rather than a commitment to purchase credits to be generated in the future.



# Recommendations

# Assessment of Market-Based Policy Options for Scaling Up Mitigation Actions in Indonesia - Policy Mapping and Gap Analysis

## Summary and recommendations

01

The existing policy framework provides most of the elements necessary for the implementation of an Emission trading system

### Enabling elements:

- ✓ Framework for its design, development and implementation available in the environmental economic instrument
- ✓ Although the MRV system should be strengthened for the specific purpose of the ETS, the framework for an MRV system has already been established

### Gaps:

- ✓ Platform for trading of emission allowances and any other offset or emission reduction credits
- ✓ Platform for the issuance of allowances and permits
- ✓ Establishment of the institution for the operationalization and implementation of the ETS

02

The basic structure for the implementation of an energy efficiency certificate system exist

### Enabling elements:

- ✓ Policy framework developed under BASIS and Green industry standards can be used as a basis

### Gaps:

- ✓ Provisions for trading which is a key feature when an energy efficiency certificate system is introduced (establish a platform for energy efficiency certificates trading)

03

The policy framework does not support the implementation of a mandatory renewable energy certificate

### Gaps:

- ✓ There are currently no specific regulations that can support its implementation, which implies a significant amount of work to achieve this



# Assessment of Market-Based Policy Options for Scaling Up Mitigation Actions in Indonesia - Policy Mapping and Gap Analysis

## Summary and recommendations

### 04 The introduction of a carbon tax could be very challenging

#### Gaps:

- ✓ The analysis on taxation and fiscal policy in Indonesia show that the introduction of a new tax could be very challenging

#### Recommendations:

- Consider implementing a carbon tax system in the form of **tax rebates**
- A GHG mitigation tax rebate system can be considered as incentives as emitting over the cap or limit imposed would not lead to additional financial burden

### 05 Result-based financing

#### Enabling elements:

- ✓ Funding in the form of subsidies can be used to support the implementation of renewable energy projects.

#### Gaps:

- ✓ However, it may not be available to support their sustainability in terms of providing funding for its continuous operation

#### Recommendations:

- Use this funding to finance a result-based financing scheme, which will give further incentives to the project developers to undertake their projects efficiently
- The revenues from green bonds can be earmarked for the purpose of financing a result-based financing scheme instead of allocating directly from the national budget

**Assessment of Market-Based Policy Options for  
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**Policy Mapping and Gap Analysis**

**Thank you!**

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