

INDONESIA'S GREEN BOND & GREEN SUKUK INITIATIVE



MINISTRY OF FINANCE
REPUBLIC OF INDONESIA

CONTENTS

OVERVIEW

CLIMATE CHANGE

- [1] Indonesia's Climate Change Vulnerability Map
- [2] Climate Change Impact
- [3] Indonesia's Commitment
- [4] The Financing Requirements

INDONESIA'S BUDGETING SYSTEM FOR CLIMATE CHANGE

- [1] What is Climate Budget Tagging
- [2] Tracking Tools for Climate Finance
- [3] Climate Budget Tagging Results

INDONESIA'S GREEN SUKUK

- [1] Indonesia's Green Bond & Green Sukuk Framework
- [2] 9 Eligible Green Sectors

INDONESIA'S GREEN SUKUK 2018 ISSUANCE

- [1] Demand and Allocation of Issuance
- [2] Use of Proceeds
- [3] Projects Highlight

OVERVIEW

BACKGROUND

Indonesia's tropical and archipelagic landscape makes the country one of the world's richest countries in regards to its biodiversity. At the same time, it allows the country to be vulnerable to the adverse impact of climate change.

Various studies have shown that climate change vulnerability has a direct economic impact. For example, flood and drought, as two key hazards in Indonesia, occur more frequently as a result of worsening climate change. Surface temperature in Indonesia is also expected to rise, with consequent rise in distribution of diseases and lower productivity of agriculture products.

For this reason, the government is committed to reducing GHGs emissions since 2009. In 2016, through the Paris Agreement and the scheme of National Determined Contribution (NDC), the commitment is revised to a reduction of 29% (business as usual scenario) or up to 41% (conditional to international supports).

A study by the Fiscal Policy Agency also shows that there is a huge financing need to combat climate change. At early stage, financial support from the government is hugely needed to encourage funding from the private sector. Especially to achieve our ambitious goal of GHG emissions reduction, the role of state budget becomes crucial.

The increasing role of state budget forces the government to review the role of state budget funding. Consequently, the government introduced the Budget Tagging Mechanism to see the effectiveness and efficiency of current allocated budget of climate change spending. This mechanism results in recommendations in the form of performance-based budgeting system, that is output and outcome oriented, regulated under the Ministerial decree (PMK No. 214/2017).

Another result of the budget tagging process, is the creation of fiscal instruments for climate change action. One of them is Green Sukuk issued in 2018.

Green Sukuk

The Green Bond and Green Sukuk Initiative aims to support Indonesia's goal in its GHG emissions reduction. Green Sukuk is an innovative financial instrument to support Indonesia's commitment in GHG emissions reduction based on Islamic Law principles. The issuance is guided by the Green Bond and Green Sukuk Framework, reviewed by international independent reviewer CICERO and awarded medium green shade.

In the 2018 issuance, all of the proceeds of the \$1.25bn Green Sukuk will exclusively go to selected 'eligible green projects' based on the Green Bond and Green Sukuk Framework. The issuance is marked as the world's first sovereign green sukuk, investors distributed around the globe (32% Islamic market, 25% Asia, 15% EU, 18% USA and 10% Indonesia).





A stylized, abstract portrait of a person's face, rendered in a graphic design style. The face is composed of various overlapping geometric shapes, primarily in shades of orange, red, and brown. The features are minimalist, with dark outlines defining the eyes, nose, and mouth. The overall effect is modern and conceptual.

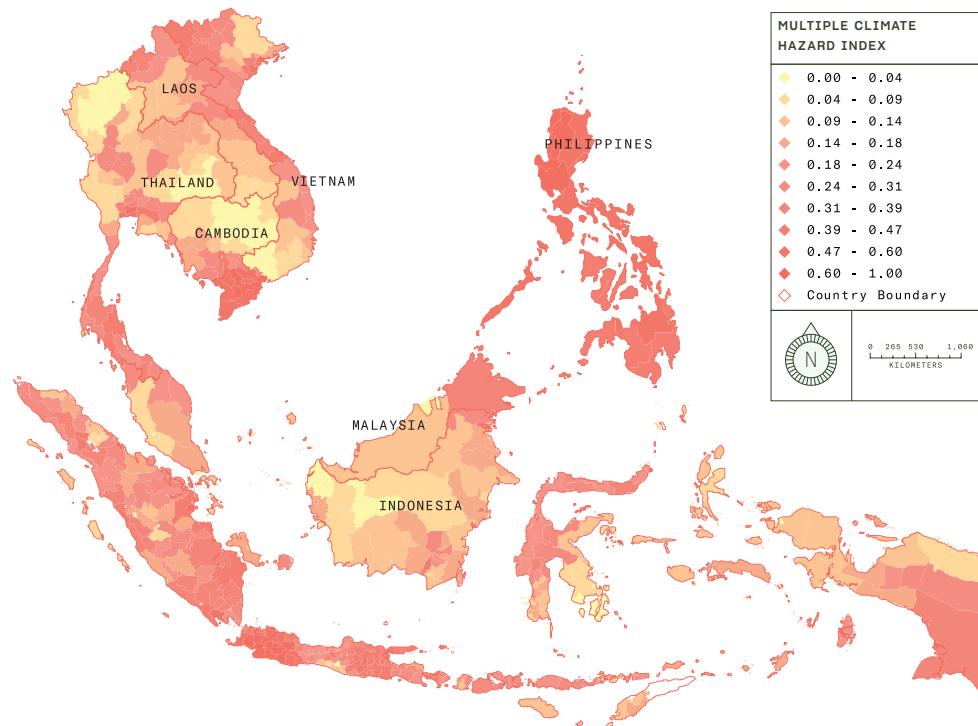
CLIMATE CHANGE



INDONESIA'S CLIMATE CHANGE VULNERABILITY MAP

Indonesia is highly vulnerable to adverse impacts of climate change. Climate change (increase in sea level and surface temperature included) is very likely to exacerbate natural disasters, especially in low-lying areas throughout the archipelago.

Source: Yusuf and Fransisco, 2009





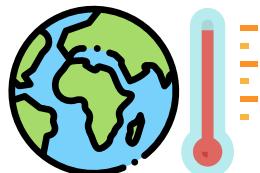
CLIMATE CHANGE IMPACT

Climate Change is believed to increase the risk for hydro-meteorological disasters, which make up to

80%

of disaster occurrences in Indonesia.

Source: NDC, 2016



Key hazards in Indonesia



Flood

In Jakarta

17.4% AREA

of had been affected by a flood with **23 deaths & over 65.000 evacuees** in January 2014.

Source: Asian Development Bank Institute, 2016



Drought

More than

3.9 MILLION

people in 105 regencies/cities in Java and Nusa Tenggara experienced drought, in 2017.

Source: BNPB, 2017

Projection of Increased Surface Temperature in Indonesia

| 2020-2050 | 2070-2100 |
|-----------|-----------|
| +1°C | +2-3°C |



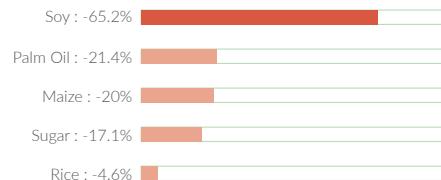
Impact to Health Sector:

3-5%

increase of vector borne diseases and its distributions

Source: NDC, 2016

Impact to Agricultural Sector : reduction in productivity



Disasters mostly affect the poor, leaving



9,82%

Source: BPS, 2018

of Indonesian population is still living below the national income poverty line.





INDONESIA'S COMMITMENT TO COMBAT CLIMATE CHANGE

The Government of Indonesia is strongly committed to combatting climate change, and this is shown through numerous actions that had been taken.



POLICY INSTRUMENTS

Law (UU) No. 16/2016

On the Ratification of Paris Agreement to the United Nations Framework Convention on Climate Change

Indonesia's National Determined Contribution (NDC) to Paris Agreement, by 2030:

29%
unconditional emission reduction against BAU scenario



Up to 41%
conditional emission reduction subject to international support

Projected emission reduction from each sector category by 2030 (in Mton Co₂e)



MITIGATION

RAN – GRK
(National Action Plan for Greenhouse Gas Reduction)

*Presidential regulation No. 61/2011

ADAPTATION

RAN – API
(National Action Plan for Climate Change Adaptation)

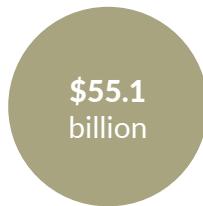
BIODIVERSITY

IBSAP (Indonesia Biodiversity Strategy and Action Plan) 2003-2020



THE FINANCING REQUIREMENTS

In order to support this commitment, G0l requires huge financial support on both climate mitigation and adaptation activities, as it is clear that there are financial gaps between funding needs and financial resources currently available financial resources.



Financial resources allocated for both mitigation and adaptations actions 2015-2019, are \$55.1 billion (or \$13.78 billion/year)

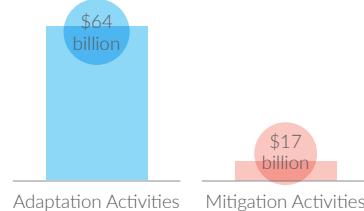
Source: NDC, 2017



Estimated costs of climate change mitigation and adaptation actions 2015-2020 are (\$81 billion (or \$16.2 billion/year)

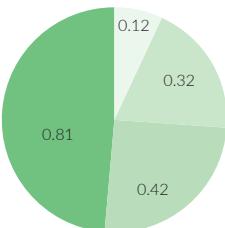
Source: TNC, 2017

Estimated funding needs for climate change activities, 2015-2020 (in USD billion)



Source of finance for mitigation action (RAN-GRK)

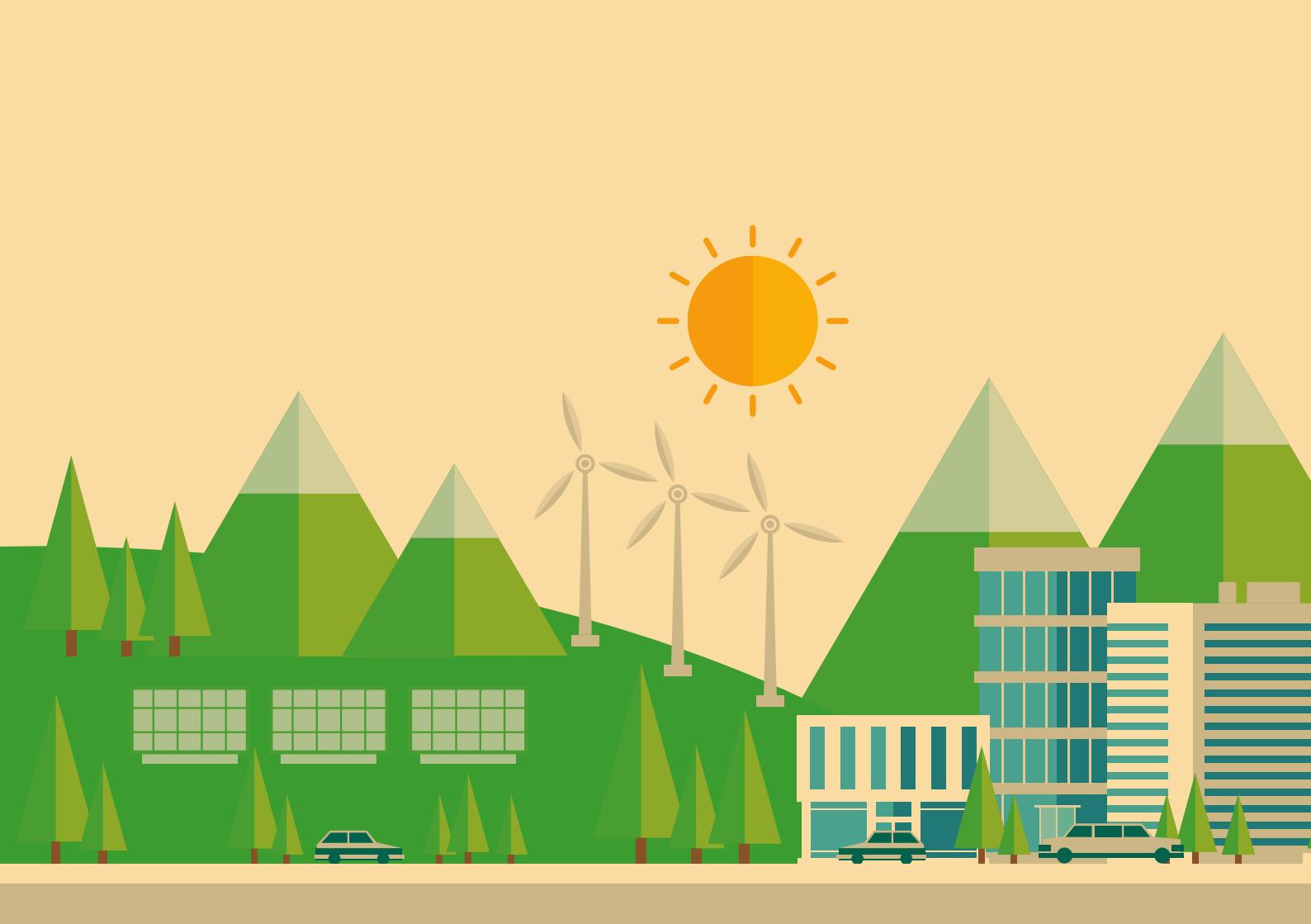
(billion USD/year)

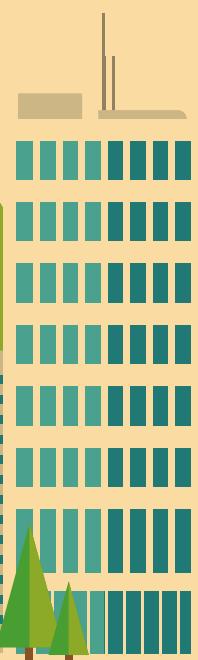


TOTAL 1.67

- Central Government
- Local Government
- Investment financing (allocated between 2008 and 2012)
- Government tax subsidies for geothermal & biofuels

Source: Indonesia's FIRST MFF, 2012





INDONESIA'S BUDGETING SYSTEM FOR CLIMATE CHANGE

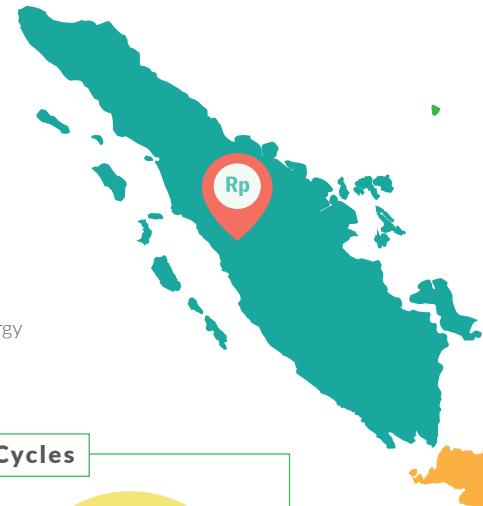


CLIMATE BUDGET TAGGING

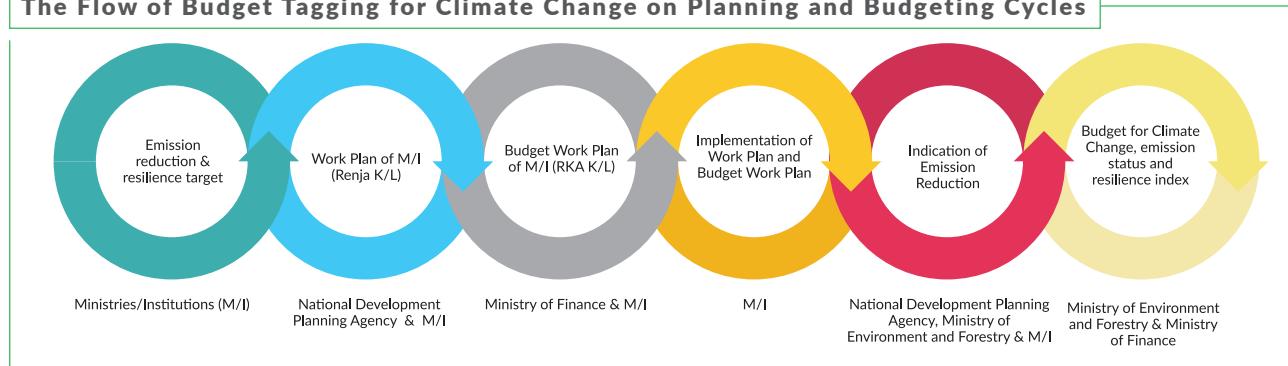
Climate Budget Tagging Process is the mechanism to identify government expenditures that deliver specified climate change benefits in accordance with the Government of Indonesia's climate objectives

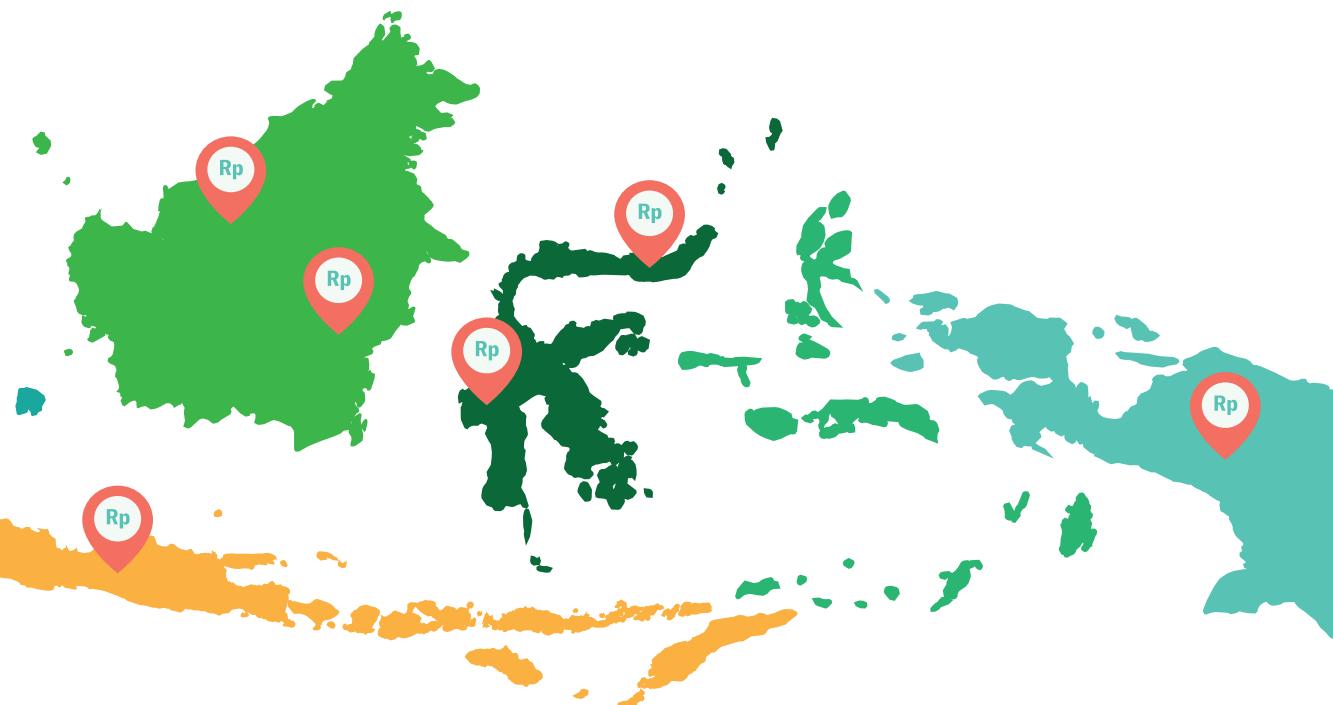
The Budget Tagging Process was developed with support of the UN Development Programme in 2014. It involves a detailed assessment of the climate benefits of projects undertaken by line ministries.

This involves six line ministries related to the climate change mitigation action plan (RAN GRK) including Ministry of Agriculture, Ministry of Environment and Forestry, Ministry of Industry, Ministry of Transportation, Ministry of Energy and Mineral Resources, and Ministry of Public Work and Housing



The Flow of Budget Tagging for Climate Change on Planning and Budgeting Cycles

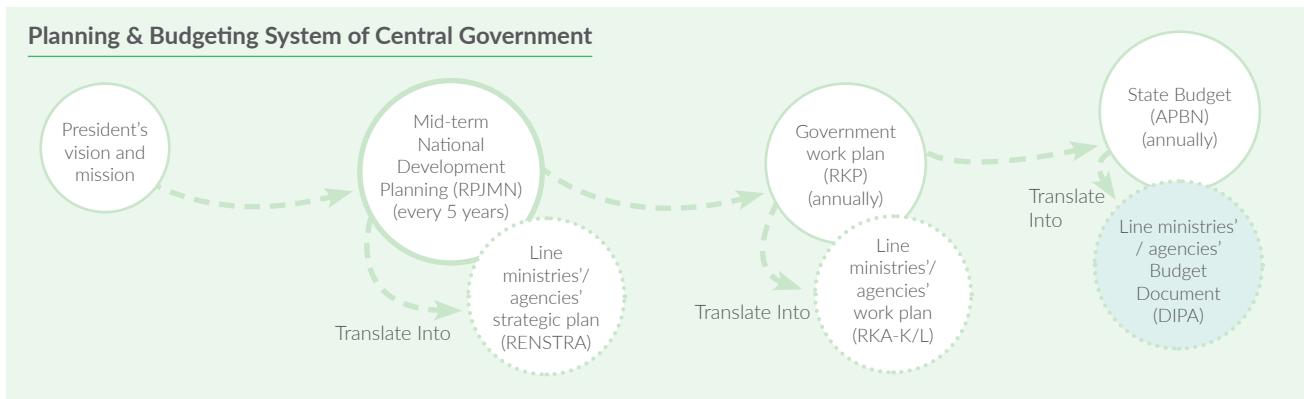






TRACKING TOOLS FOR CLIMATE FINANCE

This budget tagging system also supports the tracking of activities and programme of line ministries for climate change mitigation and adaptation strategic plan



Budget Document (DIPA) – Making Process

Climate change mitigation and adaptation has been assigned by using budget tagging through line ministries' output and outcome as performance indicators



Tagging through KRISNA:
Climate Change Mitigation (Code 004)
Climate Change Adaption (Code 007)

SOURCES: DIRECTORATE GENERAL OF BUDGET, 2018

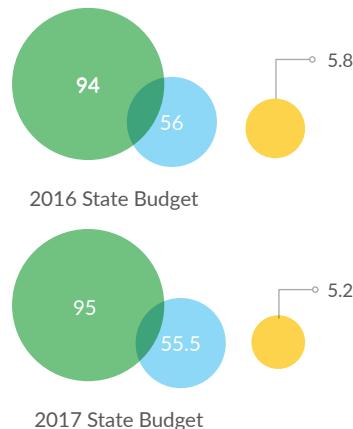


CLIMATE BUDGET TAGGING RESULTS

The Climate Budget Tagging results in the increase of annual climate change budget from 2016 to 2017.

Comparison of Climate Change Mitigation Budget to State Budget 2016-2017

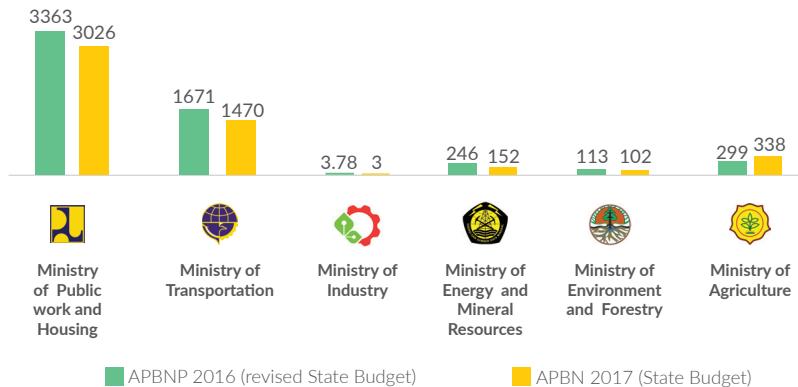
(billion USD)



- Central government expenditure
- Transfer to region
- Allocated budget for mitigation

Total allocation for climate change mitigation budget in 2016 and 2017 are \$11 Billion.

Budget allocation for Climate Mitigation (million USD)



■ APBNP 2016 (revised State Budget)

■ APBN 2017 (State Budget)

INDONESIA'S GREEN SUKUK







INDONESIA'S GREEN BOND & GREEN SUKUK INITIATIVE

Results of budget tagging process are being used to initiate new financial instruments initiative in combating climate change in a form of Green Bond and Green Sukuk. This initiative is aligned with Indonesia's aim to achieve SDGs goals.



Green Sukuk is a shariah-compliant bond, where 100% of the proceeds exclusive go to finance or refinance green projects that contribute to mitigating and adapting of climate change as well as preserving of biodiversity.

The issuance of Green Bond/Sukuk is guided by the Green Bond and Green Sukuk Framework, reviewed by CICERO, an international independent reviewer and awarded medium green shade.

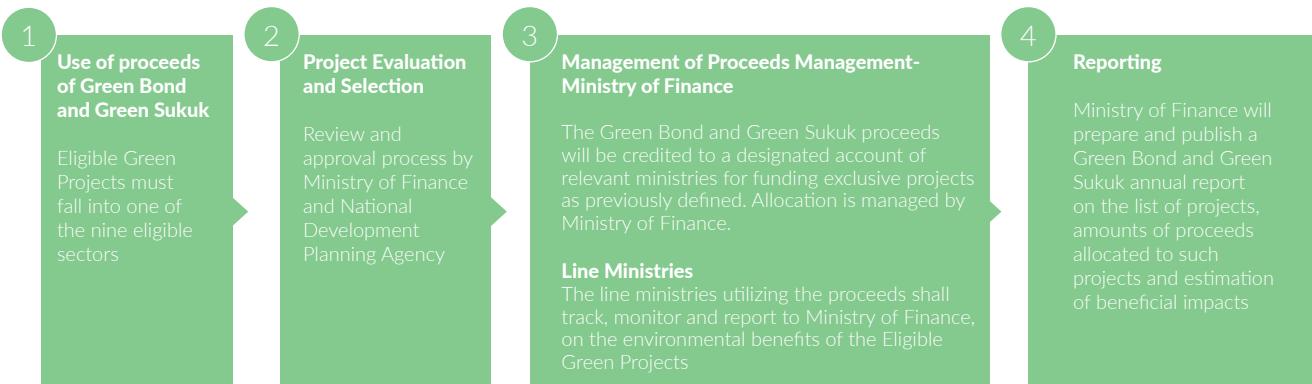
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INDONESIA'S GREEN BOND & GREEN SUKUK FRAMEWORK

The Republic of Indonesia (ROI) has developed a Green Bond and Green Sukuk Framework (the "Framework") under which it plans to finance and or refinance Eligible Green Projects via the issuance of Green Bonds and Green Sukuk.



The Framework has received a second opinion from the Centre for International Climate Research (CICERO) and is awarded medium green shading, which allows the possibility of light, medium and dark green project types. This shade also shows that eligible listed projects are representing the country efforts towards the long-term vision in carbon emission reduction, but not there yet



9 ELIGIBLE GREEN SECTORS

According to the the ROI's Green Bond and Green Sukuk Framework, there are nine eligible sectors to receive the proceeds of green sukuk/bond

1



Renewable Energy

Generation and transmission of energy from renewable energy sources: include offshore and onshore wind, solar, tidal, hydropower, biomass and geothermal

Research and development of products or technology (R&D) for renewable energy generation, include turbines and solar panels.

(Dark green)

3



Energy Efficiency

Improvement of the energy efficiency of infrastructure, which results in an energy consumption of at least 10% below the average national energy consumption of an equivalent consumption of at least 10% below the average national energy consumption of an equivalent

2



Sustainable Management of Natural Resource

Sustainable management of natural resources, which substantially avoids or reduces carbon loss/increases carbon sequestration (through planting of new forest areas, and/or replanting of degraded areas, the use of drought / flood / temperature resistant species).

Habitat and biodiversity conservation (through sustainable management of land use change, sustainable management of agriculture/fisheries/ forestry, protection of coastal, and marine environments, pest management.

(Light to dark green)

4



Green Tourism

Developing new tourism areas in line with Green Tourism Principles

Optimization of supporting infrastructure to support sustainable tourism (i.e. water treatment, energy efficiency)

Developing tourism resiliency against climate change risk.

(Medium to dark green)



5



Resilience to Climate Change for Highly Vulnerable Areas and Sectors/Disaster Risk Reduction

Research leading to technology innovation with sustainability benefits
Food security
Flood mitigation
Drought management
Public health management
(Dark green)

6



Green Buildings

Developing green buildings in line with Greenship developed by Green Building Council Indonesia ("GBC Indonesia"), which contains six categories:

Appropriate Site Development, Energy Efficiency and Conservation, Water conservation, Material & resources cycle, Air quality & leisure air (water indoor health & comfort), Building & environment management.
(Light green)

8



Sustainable Agriculture

Developing sustainable agriculture management and methods, such as organic farming, less pesticides, Research and Development ("R&D") on climate resilient seeds, and energy efficient on agriculture

Subsidy mechanism for agriculture insurance

(Medium to dark green)

7



Sustainable Transport

Developing clean transportation systems

Transportation network upgrade to higher climate resilient design standards

(Medium to dark green)

9



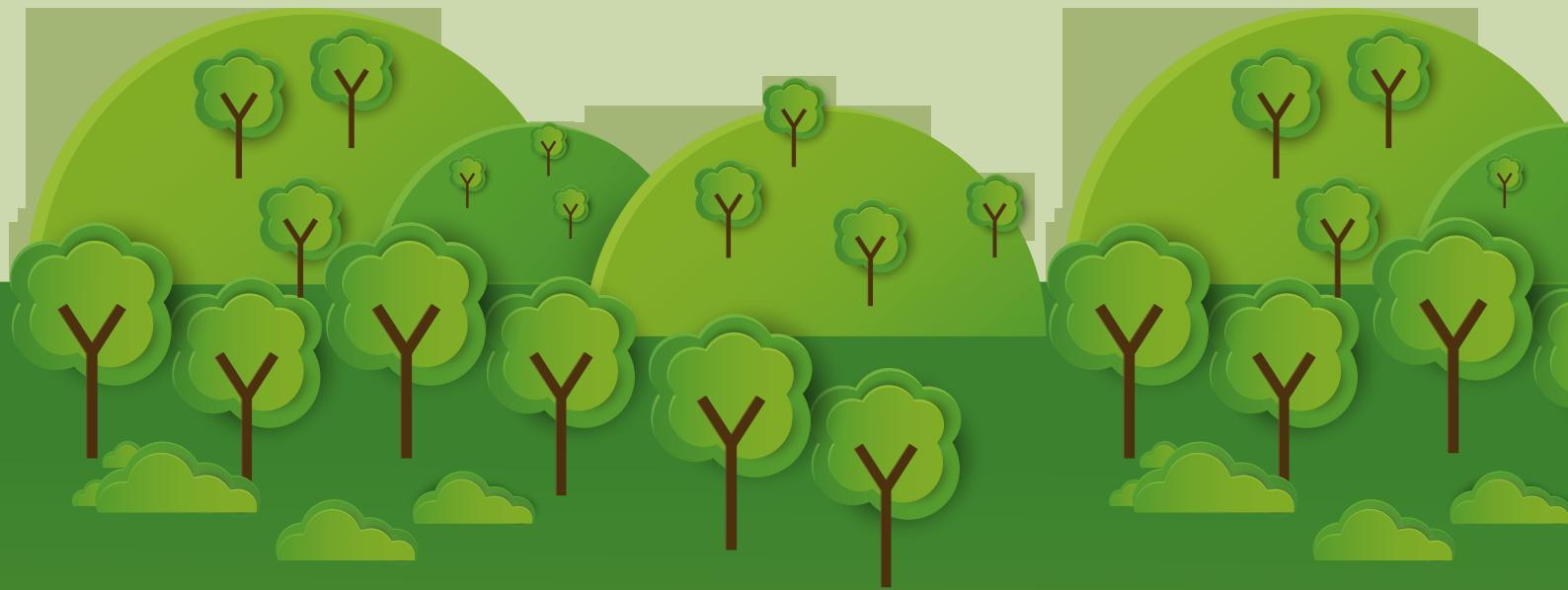
Waste to Energy & Waste Management

Improving waste management

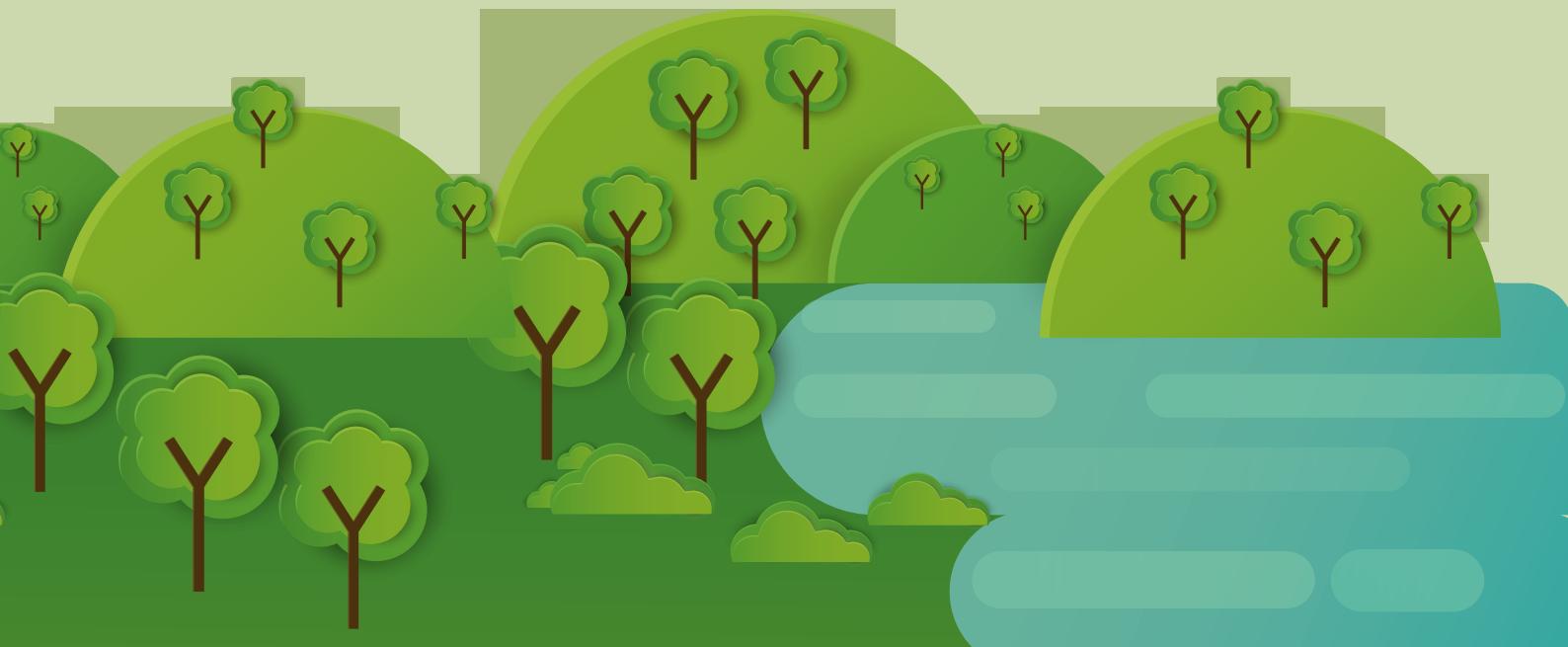
Transforming waste to renewable energy source

Rehabilitation of landfill areas

(Medium to dark green)



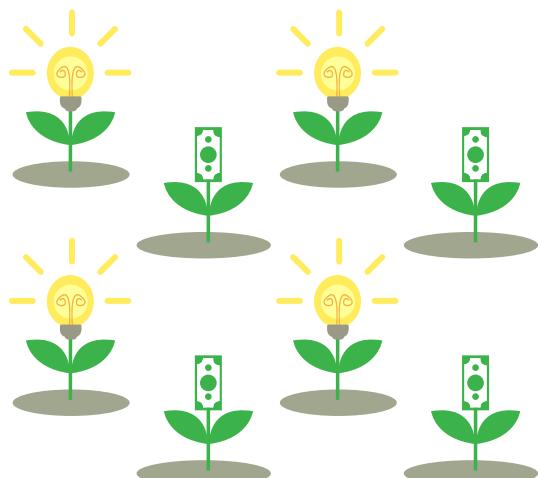
INDONESIA'S GREEN SUKUK 2018 ISSUANCE





INDONESIA'S GREEN SUKUK 2018 ISSUANCE

Establishment of good coordination and communication functions amongst line ministries, Ministry of Finance, National Development Planning Agency and Ministries of Environment and Framework is crucial for the planning, execution and evaluation of this initiative

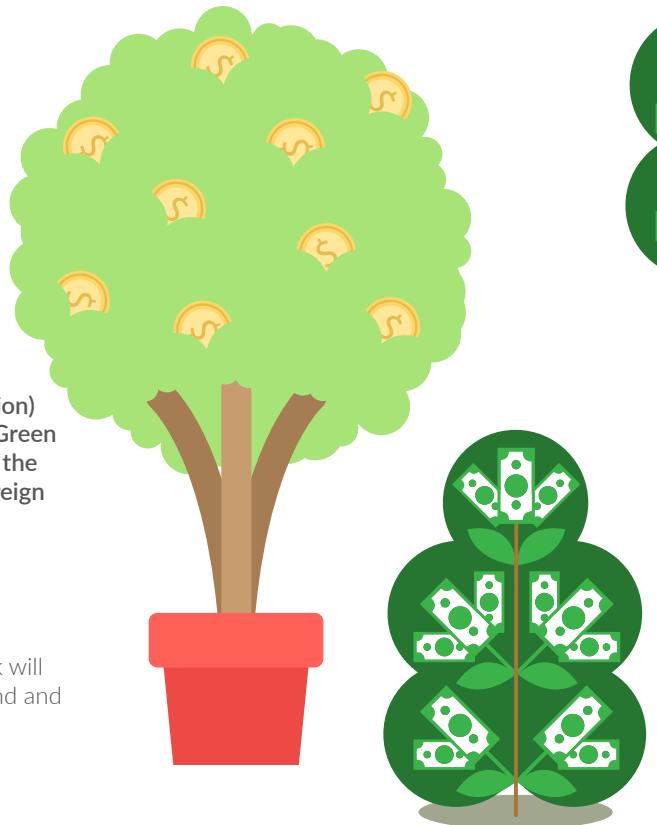


In the 2018 issuance, all of the proceeds of the \$1.25 billion Green Sukuk will exclusively go to selected 'eligible green projects' based on the Green Bond and Green Sukuk Framework.

In March 2018,
Rp 1 has issued

**\$1.25
Billion**

(or IDR 16.75 trillion)
Five-year Global Green
Sukuk is noted as the
world's first sovereign
green Sukuk.

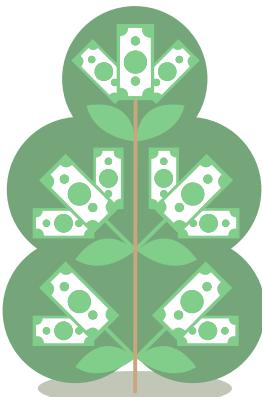




The Green Sukuk asset under 2018 issuance consists of

51%
of refinancing of
2016 project

49%
of new financing of
2018 project



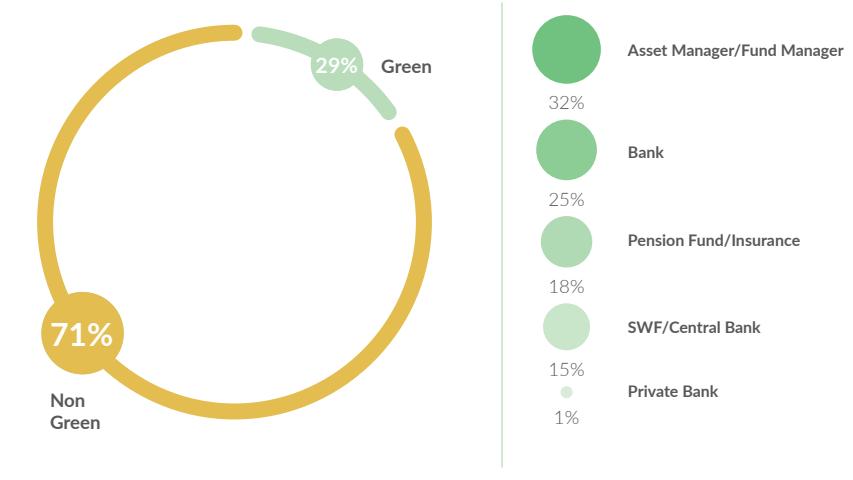
| | |
|-------------------------------|--|
| Obligor | The Government of the Republic of Indonesia, represented by the Ministry of Finance |
| Issuer | Perusahaan Penerbit SBSN Indonesia III |
| Issuer Rating | Baa3 Moody's (Positive) / BBB- S&P (Stable) / BBB Fitch (Stable) |
| Exp. Issue Rating | Baa3 Moody's / BBB- S&P / BBB- Fitch |
| Instrument | USD Wakala Trust Certificates ("Sukuk"), issued under a USD25 bn Trust Certificate Programme |
| Format. Status | 144A / RegS registered, senior unsecured |
| Maturity | Mar 1, 2023 |
| Tranche | USD1,250 mm |
| Profit Rate | 3.750% p.a. (30/360) |
| Reoffer Price / Yield | 100.000 / 3.750% |
| UST Benchmark (Price / Yield) | 2.375% 01/31/23 (98-22¼ / 2.655%) |
| Reoffer Spread | +109.5 bp |
| Use of Proceeds | General financing requirements in line with the Green Bond and Green Sukuk Framework |
| External Reviewer | CICERO second party opinion |
| Other Terms | USD200k/1k denominations, English and Indonesia law, Singapore and NASDAQ Dubai listing |
| Joint Lead Managers | ADIB, Citi (B&D), CIMB, DIB, HSBC |



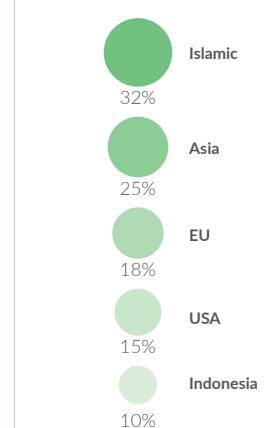
DEMAND & ALLOCATION OF THE ISSUANCE

The investors distributed around the globe (32% Islamic market, 25% Asia, 15% EU, 18% USA and 10% Indonesia).

Allocation of distribution, based on type of investor



Allocation of distribution, based on geography





USE OF PROCEEDS

Green Bond and Green Sukuk 2018 Issuance only finance and/or re-financed mitigation and adaptation activities of climate change. Expansion for next issuance could consider inclusion of biodiversity preservation activities.

For 2018 Issuance, projects that will be financed and/or refinanced by these proceeds, are from the following sectors:

According to CICERO Opinion

| DARK GREEN | MEDIUM GREEN | | |
|---|--|---|--|
|  Renewable Energy |  Sustainable Transport |  Waste to Energy & Waste Management |  Sustainable Agriculture |
|  Resilience to Climate Change | | | |



GREEN PROJECT HIGHLIGHTS

Green Bond and Green Sukuk 2018 Issuance finances a number of projects dedicated to climate change mitigation and adaptation activities.



Sustainable Transport

Double Track Railway Project in North Java Line

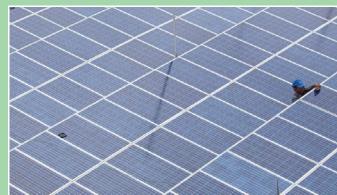
Double track railway from Jakarta to Surabaya (727 km)



Renewable Energy

Solar Power Plant Project

Tambolaka Airport, Sumba, East Nusa Tenggara



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Contact us at : Directorate General of Budget Financing and Risk Management

Phone : (62-21) 3516296

Website : www.djppr.kemenkeu.go.id

Email : webmaster.djppr@kemenkeu.go.id

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