

## Challenges and Opportunities for the Development of Green Sukuk in Indonesia

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### Abstract

Indonesia's future economic development is directed at sustainable development that considers environmental aspects. This sustainable development requires funding support from both the government and the private sector. Sharia instruments in the capital market have the opportunity to be developed as sharia investment products that are environmentally sound, both green sukuk, blue sukuk, and green sharia mutual funds. Green sukuk are sukuk that are oriented towards development in land areas, while blue sukuk are focused on marine ecosystems. The diversification of thematic sukuk issuance can increase the choice of investors who have a preference for environmental concerns. On the other hand, there are still challenges from the issuance of these two types of instruments. These challenges include the identification of underlying assets that meet the sustainability requirements, the interest and readiness of the issuing company, as well as the limited number of parties conducting environmental assessments/certifications. In 2018, the Indonesian government issued a green sukuk which is the first green sukuk issued by a country in Asia. The issuance of the sovereign green sukuk was offered specifically for global investors and received appreciation from the international community. In 2019, the government again issued green sukuk intended for retail investors in Indonesia. The use of green sukuk that have been issued by the government is for the construction of new irrigation networks, drainage management in urban areas, as well as for the use of railway lines. After being initiated by the government with the issuance of green sukuk, it is expected that the development of environmentally friendly sukuk will be carried out by corporations, both green and blue sukuk. In addition, it is necessary to develop an environmentally friendly sharia index along with encouragement to investment managers to create sharia mutual fund products with environmental insight, such as green sharia mutual funds. OJK needs to work together with stakeholders in order to support the availability of adequate infrastructure to develop these environmentally sound investment products.

### Keywords

sukuk, green sukuk; Islamic capital market; ESG; SDGs.



## I. Introduction

Currently, issues regarding environmental sustainability and environmental health are trending topics in international meetings between countries so the presence of environmentally friendly institutions in their operations is highly expected and even mandatory. Reforestation projects arise out of global concerns in order to achieve environmentally friendly and sustainable development. In 2008, the World Bank pioneered the concept of “green bonds” as part of its “Strategic Framework for Development and

Climate Change” which provides investors with innovative ways to support renewable energy, mass transportation, and other low-carbon projects. This concept is also in response to the increasing demand for investors who want to invest in financing instruments related to global climate change and earth-saving actions. In 2015, the World Bank has issued Green Bonds worth USD 8.5 billion which have been divided into 15 currencies around the world. Then what makes it special is that Green Bonds get into the category of high-quality investment instruments that have low risk. Development is a systematic and continuous effort made to realize something that is aspired. Development is a change towards improvement. Changes towards improvement require the mobilization of all human resources and reason to realize what is aspired. In addition, development is also very dependent on the availability of natural resource wealth. The availability of natural resources is one of the keys to economic growth in an area. (Shah, M. et al. 2020)

With the presence of Green Bonds as an investment instrument in the environment, then emerging renewable and sustainable energy-based financial products in sharia financing. Sharia investment instruments that have a similar concept are called Green Sukuk. In a developing country like Indonesia, which is focusing on development in various sectors, the excessive use of natural and mineral resources in infrastructure development will have a negative impact on the environment. So, awareness and efforts to improve the environment are needed by implementing sustainable programs. The presence of Green Sukuk in Indonesia is very potential and important so that development is in line with environmental conservation efforts. Green Sukuk is an innovative financial instrument to support Indonesia in its commitment to reducing greenhouse gas emissions under Islamic Law.

In 2018, the Indonesian government through the Ministry of Finance took the initiative to issue green sukuk on a domestic scale, which in sales also targeted investors from international institutions. The issuance of the Green Sukuk is expected to help the government to obtain sources of domestic renewable infrastructure financing, especially assisting in the allocation of environmentally sound development financing. Indonesia was listed as the world's first sovereign green sukuk with a value of US\$1.25 billion in March 2018.

Because it is a new innovation, there are many opportunities for the development of Green Sukuk in Indonesia that can be maximized and challenges in practice that can be minimized. This study will explain how Islamic Economics pioneered the concept of sustainable development with the opportunities and challenges that will be faced in the development of Green Sukuk in Indonesia.

Thus, from the description of the background and information above, the following problems can be raised:

1. What is the Procedure for Issuing Green Sukuk in Indonesia?
2. What are the Opportunities and Challenges and the Development of Green Sukuk in Indonesia?

## II. Research Method

The method used in this research is the descriptive research method. The research method was used because this study describes an analysis of challenges and opportunities as well as what strategies are used in the Green Sukuk product in its development.

### **III. Result and Discussion**

#### **3.1 Investment concept related to ESG and**

##### **a. ESG (Environmental, Social, and Governance)**

“ESG”, “responsible investing”, and “sustainable investing” are general terms that refer to the incorporation of environmental, social, and governance (“ESG”) considerations into investors’ portfolio decisions. Investors typically assess ESG factors using non-financial data on environmental impacts (e.g., carbon emissions), social impacts (e.g., employee satisfaction), and governance attributes (e.g., board structure). This survey will provide a more specific definition, but in general, responsible investors will seek to avoid or reduce their exposure to investments that pose greater ESG risk or to influence companies to be more ESG friendly and thereby generate more positive benefits for society.

ESG is a new dimension which is the development of Socially Responsible Investments (“SRI”). SRI is a global investment movement that embodies ethical values, protects the environment, and improves social conditions. As development of SRI, ESG focuses more on environmental, social, and governance factors as well as acting as additional indicators to evaluate company performance. Environmental factors determine a company's environmental concerns, mainly related to waste and pollution, resource depletion, greenhouse gas emissions, deforestation, and climate change. Social factors look at how a company treats its human resources and focuses on employee relationships and diversity, working conditions, local communities, health and safety, and conflicts between employees. The governance factor, on the other hand, concerns the company's policies and how the company is governed.

The development of SRI towards ESG arises because business activities have the potential to create risks of environmental damage, especially for ecosystems, water, air, and human health. The things that are included in the implementation of ESG include the company's strategy in responding to climate change, water management, and the effectiveness of the company's health and safety policy. Nearly 70% of CEOs of companies in Hong Kong admit that adherence to ESG commitments has a positive impact on their business development.

##### **b. SDGs (Sustainable Development Goals)**

The concept of Sustainable Development Goals (SDGs) was first inaugurated at the United Nations General Assembly on September 25, 2015, in the United States. The SDGs cover seventeen goals and have a development focus for countries around the world. For developed countries, the SDGs are used to reduce inequality and excessive consumption and production. On the other hand, for developing countries, the SDGs are an effort to reduce poverty levels while improving the quality of health, education, protection of marine and forest ecosystems, sanitation, and availability of drinking water.

Before the SDGs were formulated, countries in the world had agreed on the importance of financing as the key to the successful implementation of sustainable development throughout the world, both developing and developed countries. This commitment is contained in the Addis Ababa Action Agenda (“AAAA”) issued in July 2015 at the United Nations Third International Conference on Financing for Development. This agenda was attended by 174 countries and private institutions such as development banks, United Nations organizations, economic commissions, and non-governmental organizations.

One of the financing strategies agreed upon in the AAAA is blended financing, namely funding cooperation between the government and the private sector. Blended financing aims to provide incentives for non-governmental institutions to enter into programs related to the implementation of sustainable development. This scheme also prioritizes the fair sharing of risks and benefits of activities between the government and collaborating parties. Nevertheless, until now there is still a financing gap to achieve the SDGs in developing countries of up to USD 2.5-3 trillion per year. This need, particularly in Indonesia, has prompted the government to develop a new financing strategy as a medium for accelerating the achievement of the SDGs.



Source: Bappenas

**Figure 1.** Sustainable Development Goals

To achieve these SDGs, Green Financial Instruments (or Sustainable Finance) such as green bonds can be an alternative source of funding. In addition to green bonds/sukuk, there are other environmental-based bonds, such as social bonds targeting project financing aimed at overcoming and/or generating positive impacts from existing social problems. Several categories of social projects listed in the Social Bond Principles (“SBP”) include financing for access to basic infrastructure (water, sanitation, energy), access to basic needs (health, education, social security, financial services), housing, empowerment SMEs, and food security. The beneficiaries of the issuance of social bonds are targeted to reach marginalized populations, refugees from natural disasters, people with disabilities, and migrants. On the other hand, sustainable bonds are a combination of green bonds and social bonds. This categorization is based on conditions in the field that some social projects can also have a positive impact on the environment and vice versa. Therefore, the basic principles in the issuance of sustainable bonds are made in line with the four core components in the Green Bond Principles (“GBP”) and SBP. Based on these types of bonds, the issuer has the discretion to choose the appropriate bond classification based on the main purpose of issuance and the availability of the project under which it is issued.

Specifically, green bonds can mobilize resources from domestic and international capital markets to address climate change (SDG 13), clean and affordable energy (SDG 7), ocean ecosystems (SDG 14), and terrestrial ecosystems (SDG 15). Issuance of green bonds



will also ultimately support, among others, improving health and welfare (SDG 3), increasing access to clean water and sanitation (SDG 6), and building sustainable cities and communities (SDG 11) and other sustainable development goals. This relationship shows that the green bond instrument contributes greatly to the achievement of most of the goals in the SDGs.

### **3.2. Green Bond Standards and Frameworks in Indonesia**

By definition, green bonds (GB) are the same as ordinary bonds. That is a statement of debt from the bond issuer to the bondholder accompanied by a promise to repay the principal debt along with the interest coupon (margin) later on when the payment is due. In bonds, it is always stated when the payment is due and the coupon (interest, margin) that is the obligation of the bond issuer to the bondholder. The term of the bonds is generally 1 to 15 years. The thing that distinguishes ordinary bonds from green bonds is the terms of their designation. Green Bonds are only allocated to finance projects or business activities that care about environmental sustainability. The point is that the business being financed must be guaranteed not to damage the environment.

Cicero, a leading institute for interdisciplinary climate research in Norway divides the notion of Green into 3 categories, namely:

- a. Dark Green for things that can lower carbon emissions in the long term like wind energy
- b. Medium Green for good things steps forward like plug-in hybrid bus
- c. Light Green for environmentally friendly that will not change long-term prospects, such as a more efficient fossil fuel infrastructure

Examples of projects that can be financed include clean water projects, renewable energy, energy efficiency, river and habitat restoration, climate change impact mitigation, and so on.

#### **a. Green Bond Issuance Characteristics**

Based on the description above, technically there are several things that need to be considered related to the issuance of Green Bonds. Are as follows:

- a. Green Bonds can only be issued to finance green projects, i.e., projects related to:
  - 1) Solar and wind installation,
  - 2) Funding of new technologies that enable significant reductions in greenhouse gas emissions,
  - 3) Rehabilitation of power generation and transmission facilities to reduce greenhouse gas emissions,
  - 4) Associated with greater efficiency in transportation, including fuel replacement and mass transportation,
  - 5) Waste management (methane emission) and energy-efficient building construction,
  - 6) Carbon reduction through reforestation and avoiding deforestation,
  - 7) Flood protection projects – including reforestation and watershed management,
  - 8) Increasing food security, and
  - 9) Implementation of agricultural systems that can slow down deforestation
- b. a minimum of 70 percent of the proceeds from the sale of Green Bonds is used to finance agreed green projects. The issuer must manage the proceeds of the Green Bond. In addition, it has an obligation to report the use of the results. As part of managing the results, the issuer must create a separate account or disclose it in a special note in the financial statements

- c. the environmental benefits of the project must be clearly defined and verified by an independent third party. The performance of Green Bonds and projects must be reviewed by an independent third-party and the results must be reported annually to the Authority
- d. specifically, projects financed by Green Bonds from the World Bank, the purpose of which includes reducing poverty and improving the local economy

#### **b. Benefits of Green Bond**

From various experiences in countries in the world that issue Green Bonds, it is concluded that the benefits of Green Bonds include the following:

1. Green Bonds are the best way to secure large amounts of capital to support uneconomical environmental investments using more expensive capital. Green Bonds are especially suitable for large-scale sustainability projects. Therefore, for some countries, Green Bonds are given incentives, such as tax exemptions and tax credits.
2. Green Bonds can improve the reputation of the issuer. Issuers are considered to have demonstrated their commitment to environmental care in the context of sustainable development. It also gives issuers access to a select number of global investors who only invest in sustainable business activities.

Green Bond issuers get another advantage in the form of the increasing number of alternative investors who care about environmental conservation. Rising high demand for Green Bonds can lead to lower borrowing costs, thus providing an opportunity to increase profits.

### **3.3. Issuance of Green Sukuk in Indonesia and Impact Analysis of Issuance of Retail Green Sukuk**

The issuance of Sukuk with the concept of green financing in Indonesia is currently a smart way of the government's efforts to overcome obstacles to developing state sukuk in diversifying underlying assets. Green Sukuk (Sharia bonds based on environmentally sound development) have complied with the National Sharia Council Fatwa No. 32/DSNMUI/IX/2002 regarding sharia bonds, because the Green Sukuk investment product is part of the sukuk itself which is long-term security based on sharia principles issued by the issuer to sharia bondholders which requires the issuer to pay income to the sharia bondholders, in the form of profit-sharing/margin/fee, as well as repaying bond funds at maturity. Thus, Green Sukuk holders will also benefit not in the form of interest, but in the form of profit-sharing (margin/fee) so that the Green Sukuk itself has contained two standards, namely to fulfill the mandate of environmental concern and sharia compliance.

The issuance of Green Sukuk aims to harmonize development with environmental conservation in order to achieve the target of environmentally friendly economic growth. Prior to the start of the green bond and green sukuk initiative, the Indonesian government had issued a series of retail bonds (ORI) some of which were considered prototypes of green bonds. Most of them are three-year bonds and pay interest every month at around the 7% rate, which is considered competitive compared to other financial instruments.

Indonesia is listed as a pioneer in green bond issuance in Southeast Asia through the issuance of Global Sovereign Green Sukuk with a five-year term with an issuance value of US\$1.25 billion or equivalent or Rp16.75 trillion in March 2018. This series will mature in 2017. 2023 and set a yield (yield/ujrah) of 3.75%. This transaction is the first issuance of a Green Sukuk in the world by a country (the world's first sovereign green sukuk) with investors spread all over the world, namely: 32% Islamic market, 25% Asian market, 15%

EU, 18% US, and 10% Indonesian. The issuance of Green Sukuk for the first time received a positive response from the market, so the Indonesian government considered re-issuing green sukuk in 2019 as an option in the midst of alternative sources of short and medium-term financing and will support the realization of inclusive finance and fulfill part of the state budget financing in 2019, as well as participated in supporting national development, especially for green assets.

The responsiveness of the Indonesian government to its first success in issuing global sovereign green sukuk in 2018 is sold in dollars and has been offered on the Singapore and Dubai stock exchanges. So, in 2019 the government also re-released the Green Sukuk Retail instrument series ST006 and ST007. Retail SBSN itself is a Government Securities instrument specifically targeting individual domestic investors. The issuance of Retail SBSN is carried out through a retail sukuk series because retail sukuk are flexible to be purchased at retail and tradable in the secondary market by investors after the allotment period is over. The Green Sukuk issued in 2019 is also the first green sukuk sold in rupiah-based retail in Indonesia with a product offering period that will take place from 1 - 21 November 2019 with the purchase order mechanism submitted through an electronic system provided by distribution partners who have an interface with the e-SBN system and before placing a purchase order, every potential investor should first understand the conditions stated in the ST006 information memorandum. This instrument is expected to make Indonesia one of the first countries with green-based or environmentally friendly sharia financing in the world. The Green Project Criteria itself refers to the Green Bonds Principles, namely projects that promote the transition to low-emissions economic growth and climate resilience. The proceeds from these issuances will be used to finance eligible green projects, either in the form of new financing or refinancing.

Green projects that support the reduction of carbon emissions and resilience to climate change, as well as mitigation actions, are feasible projects to be financed from this green sukuk investment product. Other green projects are biodiversity, sustainable transportation with more environmentally friendly development, green agriculture, and green tourism. All of this has been stated in the green bond and green sukuk framework (a framework of reference for the development of sukuk based on environmental insight) which has been prepared by the government in collaboration with stakeholders from the ministry of finance, the ministry of environment and forestry, and is reviewed directly by CICERO (Center for International Climate Research). The framework has an international standard and received a second opinion in the form of a medium green grade (a standard that has been declared very feasible to be recommended as an investment instrument) from an independent supervisor. This level reflects ambitions for climate and the environment, as well as how solid the framework's governance structure is, starting from the highest to the lowest level, namely dark green, medium green, light green, and brown.

Meanwhile, in implementing the selection and evaluation of projects funded by green sukuk, the government uses the existing Climate Budget Tagging system. The system introduced by the government in 2015 is the climate change budget marking system, which functions to identify the allocation and realization of public budgets that provide benefits for climate change mitigation and adaptation. The Climate Budget Tagging process was initiated by the Ministry of Finance with the support of the United Nations Development Program (UNDP) which is an integrated system integrated into the KRISNA-Bappenas system and involves technical Ministries in marking their respective budgets related to climate change mitigation and adaptation activities. For the purposes of the green sukuk impact report, the environmental impact of each activity is analyzed by each ministry together with the Climate Change Secretariat under the Ministry of National Development

Planning of the Republic of Indonesia (BAPPENAS) and validated by the Ministry of Environment and Forestry to be consistent with the Nationally Determined Contribution (NDC) Indonesia.

Based on the analysis of the results of the ST-006 retail green sukuk issuance in 2019 and its evaluation, it can be seen that there are several weaknesses in the results of the initial issuance that have been carried out. Nevertheless, the existence of this retail green sukuk brings a positive impact from various aspects. First, it is known that the concept of Islamic economics and finance is in line with the principles of sustainable development which emphasizes ethics, justice, and equality. Therefore, Islamic financial-economic instruments, including retail green sukuk, have a positive impact in supporting various productive activities, redistribution of welfare to underprivileged communities as well as supporting the achievement of the Sustainable Development Goals (SDGs).

In addition, this retail green sukuk instrument is not only a state fiscal policy that increases state revenues but also has an impact on reducing carbon emissions. The issuance of green sukuk also supports Indonesia's commitment to achieving several SDGs sustainable development goals, including clean and affordable energy, economic growth and decent work, industry, innovation and infrastructure, sustainable cities and communities, and action to tackle climate change. Meanwhile, it is also known that retail green sukuk is one of the Islamic financial instruments in the form of state securities whose issuance results are used to finance green projects. This issuance is also one of the government's commitments to rely on domestic sources of financing. Investing in retail green sukuk is one form of the contribution of its citizens to realize the ideals of independence in financing development.

In this case, one of the advantages of domestic green sukuk is avoiding exchange rate risk. In contrast to global green sukuk which are issued in US Dollar denominations, retail green sukuk are made in Rupiah. After the 1998 economic crisis, the Indonesian government implemented a policy to prioritize financing the APBN deficit from domestic funds. By borrowing funds from the public, the government avoids exchange rate risk in the event of fluctuations in the Rupiah exchange rate against foreign currencies, especially the US Dollar. So, with this feature, domestic retail green sukuk is also expected to strengthen domestic financial system stability.

In addition, these retail green sukuk can be used as a benchmark for determining the value of other financial instruments, especially sukuk or bonds with a green orientation. This is because the yield curve formed by sukuk can be used as a reference for companies to determine the yield of sukuk issued by corporations. This reference can also be used by investors to conduct an assessment (valuation) and analysis of the fair price of a sukuk with a certain level of risk.

Not only that, the government's initiative to issue green-based instruments can inspire and encourage the private sector to participate in issuing similar instruments. For example, in 2019, PT Sarana Multi Infrastruktur (PT. SMI) followed in the footsteps of the government issuing the first corporate green bond. Therefore, the issuance of green sukuk by the government is expected to trigger private or regional companies to issue green sukuk. Another impact is related to literacy and inclusion of the Islamic capital market in Indonesia. Based on the 2016 OJK financial literacy and inclusion index survey report, the level of financial literacy and inclusion for the capital market in Indonesia is still very low, at 4.44% for financial literacy and 1.25% for capital market inclusion. Meanwhile, for the Islamic capital market, the literacy and inclusion level of the community is at an even lower level, which is 0.02% for the Islamic capital market literacy and the inclusion is 0.01%. The low level of literacy and inclusion of the Islamic capital market in the country



has prompted the government to develop socialization and add investment instruments to the Islamic capital market. Through this retail green sukuk, it is hoped that it will expand the investor base in the country to investors who have a preference for environmental conservation and SDGs, to increase the inclusion of the Islamic capital market in Indonesia. In addition, with massive promotion and socialization, it is hoped that Islamic capital market literacy, especially green sukuk, will also increase.

The socialization of this investment culture can also be synergized with a culture of environmental care. Caring for the environment can be started to be campaigned into a culture that is inherent in everyday life and covers various aspects ranging from choosing food, clothing, and using environmentally friendly products for daily needs to choosing green-based investments. If the green investment has become the community's choice and culture, then the government and private parties' push for environmentally friendly infrastructure development will be even greater. So, Indonesia's commitment to mitigating climate change and building a nation that is nationally resilient will be realized more quickly.

Based on some of the explanations above, it can be concluded that some of the positive impacts of the issuance of this retail green sukuk are as follows:

1. Investment in retail green sukuk is a form of community contribution to the country and supports the implementation of the Paris Agreement and SDGs;
2. Retail green sukuk have the impact of reducing greenhouse emissions and preserving the environment;
3. Retail green sukuk can contribute to increasing the state's fiscal revenue by realizing the ideals of independence in financing development;
4. The existence of retail green sukuk issued by the government can be a reference and inspiration for the issuance of other green sukuk issued by corporations or regions;
5. Green sukuk with retail schemes can reach new customer groups, namely green investors so that they can expand the domestic investor base and have a positive impact on financial inclusion;
6. The existence of green sukuk is a form of socialization to love the environment that can increase public awareness of the investment culture for green funding;

### **3.4. Opportunities and Challenges for the Development of Green Sukuk in Indonesia**

The Fiscal Policy Agency of the Ministry of Finance has made Green Sukuk a part of fiscal policy, namely as an instrument to deal with climate change problems. Budget financing policy is directed to support expansionary fiscal policy through the development of innovative financing instruments that are managed prudently in order to maintain fiscal sustainability. The Ministry of Finance issues Sovereign Green Sukuk, both global green sukuk and retail green sukuk (savings sukuk) to finance the Government's climate change mitigation and adaptation projects.

Opportunities for the issuance of Green Sukuk in Indonesia (key takeaways) are still wide open, at least several reasons include:

1. Green is a trend, the momentum of the environmental care movement.
2. Increased awareness of the millennial generation towards the environment.
3. The world's first Retail Green Sukuk (ST006).
4. The government's commitment to addressing climate change.
5. To finance environmentally friendly projects.
6. Efforts to reduce carbon emissions.

The impact of the issuance of Green Sukuk in Indonesia can be seen from the case study of an investment of IDR 1 million in Retail Green Sukuk in ST007, in the next 2

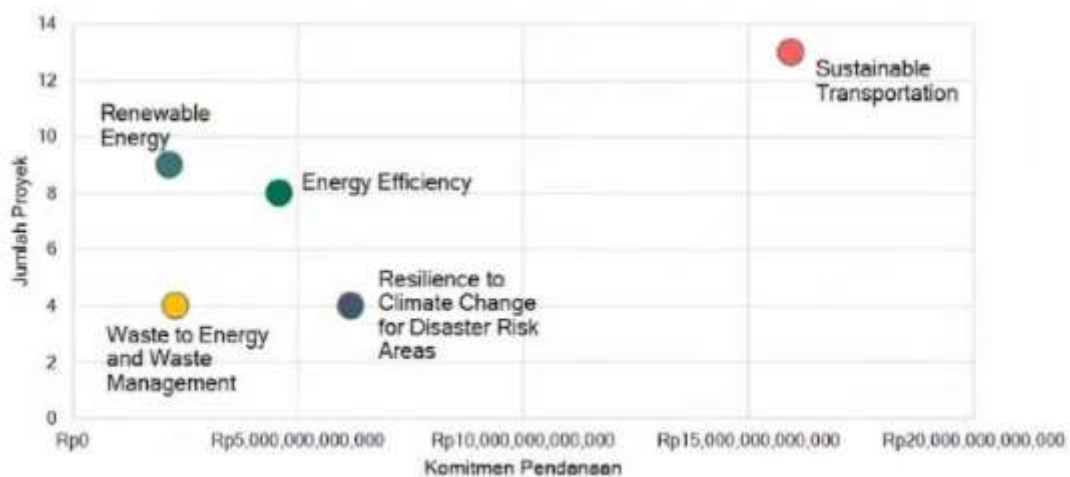
years, you will become the representative/owner of the country's green assets in the sustainable transportation sector and resilience to climate change that has an impact on the earth and each other. By analogy, based on the Green Sukuk 2020 impact report, the reduction in carbon emissions in the Trans Sumatra railway project is projected to be 213,000 tons. In simple and non-scientific calculations, each of these investments has the potential to reduce emissions by +/- 2 tons. These 2 tons is assumed to be equivalent to 56 trips from Jakarta to Bandung or planting 200 mangosteen trees.

Green Sukuk as innovative financing in which the determination of the underlying assets of Green Sukuk refers to Climate Budget Tagging data and is guided by Indonesia's Green Bond/Sukuk Framework. The following is data from the Fiscal Policy Agency of the Ministry of Finance regarding the timeline for the issuance of the Sovereign Green Sukuk:



Source: Fiscal Policy Agency, Ministry of Finance, Indonesia

**Figure 2.** Fiscal Policy Data related to Issuance Period of Sovereign Green Sukuk



Source: Fiscal Policy Agency, Ministry of Finance, Indonesia

**Figure 3.** The details of the sectors financed by Green Sukuk are as follows:

The challenges and upcoming strategic initiatives in the issuance of Green Sukuk in Indonesia can be explained in various aspects. From the perspective of potential investors, the relatively new Green Sukuk instrument is still not widely known. The lack of socialization and education of Green Sukuk to the public can be an obstacle to understanding the new product. For this reason, it is necessary to increase socialization activities by 'cooperating' with capital market stakeholders including Islamic finance influencers in the form of sustainable and sustainable educational activities.

From the issuer's point of view, the understanding of the work unit at the Ministry of Finance of the Green Sukuk business process will greatly support the success of the Green Sukuk from the preparation stage, the use of issuance results, and activity reporting. Another challenge is on the side of project reporting related to development progress and knowing the benefits of the project for climate change mitigation and sustainable development. Reporting on this matter is required by several review institutions such as CICERO. To overcome this, coordination between the Ministry of Finance and the work units needs to be improved, especially to agree on the indicators used in reporting and assessing the impact of the project development. If necessary, the Government can also cooperate with independent reviewers in the monitoring and reporting process so that it meets the expected criteria. The “pro-green” economic development policy that has been launched in 2010 deserves to be continued with various policies, even though the leadership of the government continues to change according to the period. Economic development that pays attention to the sustainability of the carrying capacity of the environment is expected to provide benefits for the welfare of society in the present and the future. In 2014, Bappenas launched the “Strategic Initiative for the Development of the Green Economy Concept” which aims to guide the development of an environmentally sound economy with the initial target of “greening” the industrial, transportation, energy, and land-based sectors (agriculture and forestry). It is hoped that this initiative can be implemented gradually and sustainably in line with the government's commitment to reducing carbon emissions and adapting to the impacts of climate change.

On the fiscal side, efforts to innovate financing sources need to continue to support the realization of climate change adaptation and mitigation actions. In accordance with the target of the National Committee for Islamic Economy and Finance (KNEKS) chaired by the President of the Republic of Indonesia, the issuance of State Sukuk will gradually be increased in line with the capabilities of the financial market. This increase in issuance is expected to increase the portion of the issuance of State Sukuk used for infrastructure financing which is categorized as green infrastructure. In addition to sukuk, the government also needs to encourage the private sector and state-owned enterprises (BUMN) to be involved in sustainable economic development. The government needs to develop a form of partnership financing that involves the private sector or BUMN, for example in infrastructure development that is categorized as green.

Finally, the role of the Indonesian people in supporting government programs in reducing the impact of environmental change is very much needed. The community can participate in financing sustainable development programs, for example by participating in investing in State Sukuk, including Green Sukuk.

#### **IV. Conclusion**

Based on the results of the discussion, it can generally be concluded that in its development, the issuance of Green Sukuk in Indonesia, which is still relatively new, has several challenges, but the opportunities possessed by these investments are very promising considering their benefits to humans and the environment. In addition, the characteristics of the application of sharia principles to Green Sukuk are that profit is not obtained in the form of interest, but in the form of profit-sharing (margin/fee) so Green Sukuk itself has contained two standards, namely to fulfill the mandate of environmental concern and sharia compliance. From this, specifically, it can be concluded as follows:

1. The share of ESG investment in Asia shows a decline which is partly due to differences in governance standards compared to standards in developed countries and low financial

transparency. Nonetheless, there is a huge opportunity for ESG investment in Asia, given that ESG investment is very relevant and attractive due to the pressing environmental issues in the region.

2. Several categories of social projects listed in the Social Bond Principle (“SBP”) include financing for access to basic infrastructure (water, sanitation, energy), access to basic needs (health, education, social security, financial services), housing, empowerment of MSMEs, and food security targeted at reaching marginalized populations, refugees from natural disasters, people with disabilities, and migrants. On the other hand, sustainable bonds are a combination of green bonds and social bonds.
3. Indonesia as a pioneer in the issuance of green bonds in the Southeast Asia region through the issuance of Global Sovereign Green Sukuk with a five-year term with an issuance value of US \$ 1.25 billion or equivalent or Rp. 16.75 trillion in March 2018 which received a positive response. development, the government continues to strive for its development.
4. In accordance with the target of the National Committee for Islamic Economy and Finance (KNEKS) chaired by the President of the Republic of Indonesia, the issuance of State Sukuk will gradually be increased in line with the capabilities of the financial market. This increase in issuance is expected to increase the portion of the issuance of State Sukuk used for infrastructure financing which is categorized as green infrastructure.

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