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Original Article

Harnessing Green Sukuk for Sustainable Development in Indonesia

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Abstract: *The climate change crisis that occurs in Indonesia is a global problem that requires solutions to overcome it. The presence of Green Sukuk in Indonesia is expected to be able to support sustainable development programs and commitments to reduce greenhouse gas emissions in Indonesia. The allocation of funds from the issuance of Green Sukuk was used for green projects run by the government in 2019 and 2020, namely Energy Efficiency, Renewable Energy, Sustainable Transportation, Waste and Waste Management for Energy and Climate Change Resilience for Disaster-Prone Areas.*
Green Sukuk in Indonesia is issued using Akad Wakalah by way of bookbuilding, with reference to the fatwas of the National Sharia Council – Indonesian Ulema Council (DSN-MUI). Green Sukuk issuance in Indonesia has 9 Eligible Sectors that are targeted for Green Sukuk financing projects.Indonesia has committed to finance green projects to prevent environmental damage with Green Sukuk financing, but financing using this instrument remains a challenge that must be borne by investors, government and corporations. To minimize the risk of sukuk development, policymakers must make new policies in managing all financial risk apects of sukuk in order to provide stability in prices that will affect investor interest in investing through Green Sukuk.

Keywords: *Green Sukuk, SDGS, Harnessing, Risk Financing.*

I. INTRODUCTION

Along with the rampant issue of climate change and sustainable development, it has caused an increase in demand for environmentally friendly project financing from fund owners (Alam et al., 2016). According to Samuelson (1954) Climate change has a correspondence with the use of public goods, where greenhouse gas emissions (public goods) result in negative externality impacts (public crime) (Nordhaus, 2019). This literature on environmental degradation and economic growth has contrasting consequences in the short and long run. Specifically, although there is environmental degradation in the short term, in the long run economic growth will improve environmental quality. In fact, the economy in the ASEAN region is one of the developing countries that has good performance prospects in long-term growth (Nasir et al., 2019).

The conceptual designs of "sustainable finance" and "green finance" have been seriously discussed in the last decade. Generally refers to financial instruments whose results are directed at sustainable development projects and initiatives that promote the transformation of the green economy towards a low-carbon and climate-resilient pathway (H. Liu et al., 2020). Finally, in September 2015, the United Nations declared the SDGs (Sustainable Development Goals) agenda to change the world (people, planet and prosperity) by designing 17 goals with 169 measurable targets with specified deadlines (Omer &; Noguchi, 2020). This is in line with our country's efforts to realize the vision of a golden Indonesia 2045, which expects the country to have quality infrastructure and still maintain environmental ecosystems. Moreover, economic recovery after the Covid-19 pandemic requires stakeholders (government and corporations) to prioritize improvements in line with the principles of sustainable development (Maddatuang et al., 2021)

From this series of big plans, Green Sukuk (sharia securities) is here to offer alternative financing relevant to the sustainable development goals (SDGs) to fund "green" projects in Indonesia (Abubakar &; Handayani, 2020). The demand for green bonds is quite large among investors. The reason is, they are not only looking for profit but also support the efforts of companies to care more about environmental problems. The issue of climate change has a direct correlation with the demand for green bonds, therefore companies must maintain a good image and provide confidence to investors (Siswantoro, 2018).

Several studies on Green Sukuk reveal that this green financing concept can combat climate change (Musari, 2022). This investment can also diversify finances and open up job opportunities for the community (Hariyani &; Kusuma, 2020). Although classified as a new-style investment, Green Sukuk has a very promising opportunity considering its benefits for humans and the environment (Septiana &; Dewi, 2022). Last but not least, Green Sukuk financing follows sharia maqashid in the frame of al-khamsah al-kulliyah (Fitrah &; Soemitra, 2022). Indonesia has committed to finance green projects to

prevent environmental damage with Green Sukuk financing, but financing using this instrument remains a challenge that must be borne by investors, governments and corporations. In the issuance of Green Sukuk cannot be avoided from risks as well as risks that exist in Retail Sukuk or other Savings Sukuk (Rahmawati &; Hasanah, n.d.). These risks are in the form of financial risk, reputation risk and undersubcription risk, but in the issuance of Green Sukuk it avoids exchange rate risk because the issuance uses Rupiah denomination (Alfirman et al., 2020).

From several studies on Green Sukuk and public perception of this financial instrument which is considered new, so it needs proof to be accepted as a solution to the environmental crisis and sustainable development. So this research will focus on the use of green sukuk in Indonesia to realize sustainable development.

II. LITERATURE REVIEW

A) Green Sukuk

The development of Green Sukuk is expected to be able to achieve economic and political goals that still pay attention to environmental aspects. In addition, the presence of Green Sukuk is also expected to be able to advance the Islamic financial market so that it can improve public welfare (F. H. M. Liu &; Lai, 2021) Green Sukuk is defined as an investment in accordance with sharia principles in the management of renewable energy and other environmental assets. Sukuk funds will be used to preserve the environment, natural resources, save energy, promote renewable technologies and reduce the use of greenhouse gas emissions (Abdullah &; Nayan, 2020).

Green sukuk is one of the Islamic financial instruments consisting of sustainable financing instruments which are the latest innovations as a solution to overcome climate change problems (Hania et al., 2022). The financing structure underlying the issuance of Green Sukuk and non-Green Sukuk is the same, what distinguishes between the two is that Green Sukuk financing projects are listed in the sectors in the Green Framework, namely dark green, medium green and light green (Keshminder et al., 2022).

Investment through Green Sukuk has several advantages including safe because it is guaranteed by law, its issuance is in accordance with sharia principles, competitive profit sharing rates, floating rewards with the floor adjust the B17DRR (BI-7 Day Reverse Repo Rate) reference rate, tax rates are lower than deposits, there is easy access to online transactions through early redemption facilities and can participate in supporting environmentally friendly development (Grahesti et al., 2022). In addition, one of the benefits of sukuk issuance is to attract investors, both green investors and non-green investors, to invest through Green Sukuk (Fahad &; Khan, 2022).

B) Sustainable Development Goals (SDGs)

Development is an important aspect in a country because development can be used as an indicator of assessment that a country has made progress (Muchlis et al., 2023). In the UN general assembly in 2015, the Sustainable Development Goals (SDGs) were prepared as a continuation of the Millennium Development Goals (MDGs) agenda which aims to maintain the continuous improvement of people's economic welfare, maintain the sustainability of people's social lives, maintain the quality of the environment and inclusive development and the implementation of governance that is able to maintain improvement quality of life from one generation to the next (Bappenas, 2019).

Sustainable Development Goals (SDGs) is a form of new development agreement that encourages sustainable development based on human rights and equality to encourage social, economic and environmental development (Bappenas, 2019). Sustainable Development Goals (SDGs) have 17 sustainable development goals as action plans to change the world (people, planet and prosperity) and 169 targets to be achieved before 2030 (Pizzi et al., 2020). The 17 SDGs have been formulated as separate goals but are related to each other systematically and can affect positively or negatively (Omer &; Noguchi, 2020).

Research related to SDGs is widely studied in various disciplines in the academic world, SDGs have become a challenge for every country because achieving these goals and targets requires an advanced strategy and determined by each country so as to increase demand for technology, innovation and resources to build the strategy (Bebbington &; Unerman, 2017). However, governments and relevant institutions have the primary responsibility to spearhead rules and regulations and review and follow up on the implementation of these goals at the local, regional, national and global levels (Chen et al., 2019). Various goals and targets will be correlated with the level of challenge of each country because the challenges of each country differ depending on existing economic conditions, so to achieve the SDGs goals different strategies are needed.

C) Research Methodology

The method used in this study is qualitative method, which compiles a number of data in the form of words. The qualitative data analysis is aimed at making valid opinions from so many amounts of data collected (Sekaran &; Bougie, 2017). For a comprehensive literature study search, search from many databases selected based on a high number of results:

Science Direct, Google Scholar, Web of Science, etc (Yadav, 2022). In data collection, using documentation methods from secondary data by collecting and processing data from various journals, reports, books, websites and others relevant to the topic to be discussed. Furthermore, it is discussed in depth in the literature review section and makes comparisons between previous findings and available theories in order to get valid results according to both (Saputra &; Ali, 2022).

III. RESULTS AND DISCUSSION

Becoming a developed country is a dream of any country including Indonesia, which achieving that dream requires preparation and strategy from now on. Therefore, Indonesia formulated a vision to achieve a sovereign, advanced, just and prosperous Indonesia 2045, to achieve these goals there are four pillars of Indonesia's development in 2045, namely human development and mastery of science and technology (Science and Technology), sustainable economic development, equitable development and strengthening national resilience and governance (Bappenas, 2019). In addition, the vision must also be supported by environmental control to avoid extreme climate change that is rife in other parts of the world. Climate change can be prevented by making efforts to build "green" based projects, where the project not only concentrates on the quality of development but is also able to preserve the environment.

This is in line with the UN's grand agenda, namely carrying out the concept of sustainable development goals (SDGs) which strive to improve the economic welfare of the community in a sustainable manner as well as maintain the quality of the environment and accelerate inclusive development. With this global agenda, sharia-based financial products offer alternative financing, namely by issuing green sukuk. This financing not only provides fresh funds that can be used by companies for business expansion, but also invites corporations to better preserve the environment to help future generations live decently.

A) Green Sukuk Escalation in Indonesia

In an effort to realize the vision of a golden Indonesia in 2045 and support the global plan of combating climate change as a new way to achieve the sustainable development goals (SDGs), sharia-based financing called green sukuk offers a real solution. This investment not only provides an injection of funds from investors, but also supports stakeholder efforts to reduce adverse impacts on the environment. Investment through Green Sukuk has several advantages including safe because it is guaranteed by law, its issuance in accordance with sharia principles, competitive profit sharing rates. The Government of the Republic of Indonesia under the ministry of finance has made a real movement to stimulate the public to access green finance through the issuance of retail Green Sukuk (Riana et al., 2020).

The government officially issued a retail Green Sukuk series in 2019 called ST-006, which specifically targets sales to domestic retail investors in the Indonesian region. The issuance initiated the birth of Green Sukuk issuance in the next series and was accompanied by a positive response given by investors. This can be seen from the increase in the purchase of coupon amounts by investors from year to year. From here we believe that investors have realized the importance of 'green' based financing because they not only want benefits from their long-term investment, but also need to maintain the sustainability of nature in order to maintain their survival on this earth. Until now, the government has issued the 4th retail Green Sukuk in 2022 which is estimated to have sales realization of 10 trillion. Table 1 will describe the development of Indonesia's retail Green Sukuk from 2019 to 2022.

Table 1: Overview of Green Sukuk Retail in Indonesia

Year	2019	2020	2021	2022
Series of Green Sukuk	Retail ST006	Retails ST007	Retails ST008	Retail ST009
Total Amount	IDR 1,459.88 billion	IDR 5,421.26 billion	IDR 5,421.26 billion	IDR 10 Trillion
Total Investors	7,735 Investors	16,992 Investors	14,337 Investors	35,397 Investors
Yield	6,75% (Floating with floor)	5,50% (Floating with floor)	4,80% (Floating with floor)	6,15% (Floating with floor)
Tenor	2 Years	2 Years	2 Years	2 Years

In recent years, the Indonesian government has been able to inspire other countries to issue green financing. Table 1 is evidence of Indonesia's commitment to overcome the environmental crisis by issuing retail Green Sukuk financing. Interestingly, the issuance of Green Sukuk retail ST009 in 2022 is the best SBSN issuance compared to the previous SBSN

issuance. Sales in this series of retail Green Sukuk were able to generate total orders of IDR 10 trillion from 35,397 investors, dominated by millennial investors by 53.89% (Malik, 2022).

B) Green Sukuk Financing Model in Indonesia

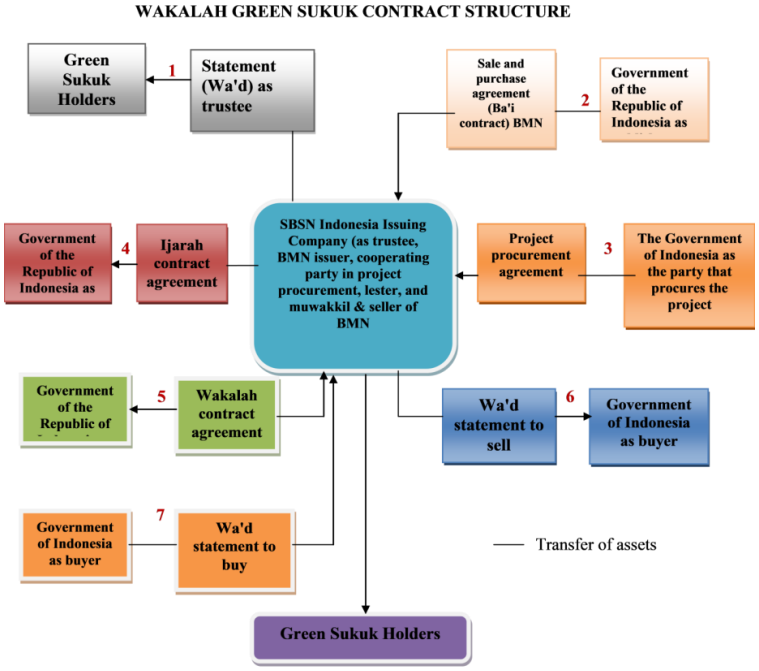
Indonesia's climate change crisis is a global problem that requires solutions to overcome it (Hania et al., 2022). The presence of Green Sukuk in Indonesia is expected to be able to support sustainable development programs and commitments to reduce greenhouse gas emissions in Indonesia (Mutmainah &; Romadhon, 2022). The issuance of Green Sukuk is regulated by law and independently reviewed by CICERO (International Research Centre) international reviewers (Mauliyah et al., 2023). Since the issuance of the first Green Sukuk in 2018, Sovereign Green Sukuk has received appreciation as one of the financial instruments concerned about climate change.The focus of Green Sukuk financing includes state projects that are environmentally based and used as underlying assets such as renewable energy projects, energy efficiency, environmentally friendly transportation and waste recycling projects that can minimize the threat of climate change crisis (Risanti et al., n.d.).

In the issuance of Green Sukuk, there are several types of contracts with different income in each contract used, including ijarah, salam, murabahah, istishna', mudharabah and musharakah (Affandi et al., 2022). Green Sukuk ST 009 uses a type of wakalah contract issued on the basis of an agreement between Indonesian SBSN Issuing Companies in which investors agree to represent (wakalah) investment funds to Indonesian SBSN Issuing Companies as trustees for Green Sukuk investment activities. The Government will use the proceeds from the issuance and sale of ST 009 exclusively to finance or refinance expenditures directly related to eligible green projects as defined in the Republic of Indonesia Green Bond and Green Sukuk Framework (Bank Mandiri, n.d.).

Green Sukuk ST009 is issued using Akad Wakalah by bookbuilding, with reference to the fatwas of the National Sharia Council – Indonesian Ulema Council (DSN-MUI). The transaction in the framework of the issuance of ST009 with Akad Wakalah, consists of the following activities: (Indonesia, 2022)

1. The SBSN Indonesia Issuing Company as the Trustee/Representative of the Owner of the ST009 series of Savings Sukuk expresses its willingness to receive funds and power of attorney (wakalah) for the management of funds from the issuance of sukuk issuance and will invest funds from the issuance of ST009 series of Savings Sukuk for the purchase of SBSN Assets (Underlying Assets), both in the form of BMN and Projects and appoint the Government as a representative in the procurement of projects according to the type, certain values and specifications.
2. Purchase of BMN beneficial rights in the form of land and/or buildings by the Indonesian SBSN Issuing Company from the Government to be used as ijarah objects in accordance with certain types, values and specifications based on the Bai' Akad.
3. The SBSN Indonesia Issuing Company as the representative of the owner of the ST009 series of Sukuk Savings with the Government makes a Project Procurement Agreement to purchase the Project from the Government. Furthermore, on the basis of the Project Procurement Agreement, the SBSN Indonesia Issuing Company gives its authority to the Government to procure the Project in the context of providing ijarah objects in accordance with certain types, values and specifications.
4. The Indonesian SBSN Issuing Company as the lessee and the Government as the lessee enter into an Akad Ijarah (SBSN Asset lease agreement) with the following conditions:
   a. Ijarah (rent) BMN which will be fully handed over to the owner of Sukuk Savings ST009 series as a Reward/Coupon.
   b. Ijarah (lease) of the Project, which will be used as compensation for maintenance services on the ijarah object (which will be stipulated in the Power of Attorney Agreement (Akad Wakalah for the maintenance of the ijarah object).
5. The Indonesian SBSN Issuing Company authorizes the Government to maintain ijarah objects that have been leased in the Ijarah Agreement based on the Wakalah Agreement on the maintenance of ijarah objects.
6. Selling statement from the SBSN Indonesia Issuing Company where the SBSN Indonesia Issuing Company will only sell SBSN Assets to the Government either in the event of Early Redemption or at the time of termination of the Ijarah Akad, at the price agreed by the SBSN Indonesia Issuing Company and the Government.
7. A statement of purchase from the Government in which the Government will purchase SBSN Assets sold by the SBSN Indonesia Issuing Company in the event of Early Redemption or at the time of termination of the Akad Ijarah, at a price agreed by the Government and the SBSN Indonesia Issuing Company.

Figure1: Green Sukuk Akad Wakalah Financing Scheme



Since the issuance of the first Green Sukuk in 2018, Indonesia has raised and mobilized more than USD 4.2 billion in funding for green sectors in 34 Indonesian Provinces from global market offerings and domestic retail. The issuance of Green Sukuk is projected to contribute to a reduction in greenhouse gas emissions by 10.3 million tons of carbon dioxide equivalent (CO2e). The proceeds from the sale of Green Sukuk have been allocated for various climate mitigation efforts in Indonesia such as sustainable transportation, renewable energy and waste management. With this fund, it has made progress towards sustainable development goals, especially in addressing issues of poverty alleviation, gender equality, and access to clean water and renewable energy (Ministry of Finance, 2020).

The issuance of Green Sukuk until 2020 has financed several green financing sectors managed by 3 ministries, namely the Ministry of Energy and Resources, the Ministry of Transportation and the Ministry of Public Works and Public Housing (PUPR) with the following Green Project allocations: (Ministry of Finance, 2021)Management of dams, lakes and other water retention facilities; Construction and management of infrastructure and supporting facilities for rail transportation; Expansion and preservation of agricultural land.

Figure 2: Distribution of green project sites in Indonesia in 2019 and 2020

Based on figure 2, it can be seen the distribution map of green projects run by the government using the allocation of

funds from the issuance of Green Sukuk, the projects carried out are Energy Efficiency, Renewable Energy, Sustainable Transportation, Waste and Waste Management Projects for Energy and Climate Change Resilience for Disaster-Prone Areas.

The issuance of Green Sukuk in Indonesia has 9 Eligible Sectors that are used as targets for Green Sukuk financing projects, including: (Ministry of Finance, 2020)

1. Renewable energy with various projects that are included in the dark green rating.
2. Sustainable management or natural resources with various forms of projects are included in the light to dark green ranking.
3. Energy Efficiency, some projects meet the criteria with a light to medium green rating.
4. Green tourism, with various projects and supporters to build green tourism areas that meet the criteria of medium to dark green.
5. Resilience to climate change for highly vulnerable areas and sectors/disaster risk reduction, included in the dark green rating.
6. Green buildings, including light green criteria.
7. Sustainable transport (transportation that supports the sustainability system) which is a form of building a transportation system that is clean from gas emissions, is included in the medium to dark green criteria.
8. Sustainable agriculture, with medium to dark green rating criteria.
9. Waste to energy and waste management (disposal systems that can be transferred to energy and good disposal systems) with the aim of rehabilitating landfills, this form is included in the criteria of medium to dark green.

C) Financing risks using Green Sukuk

Green finance is defined as a product of financial innovation that aims to achieve benefits between the economy and environmental quality. More specifically, green finance is the financing of projects that simultaneously provide some great benefits to humans and improve environmental quality (Li et al., 2022). Sukuk is a financing instrument in the Islamic concept that plays a key role in infrastructure financing for public and private projects. The depth of liquidity provided by domestic investors and the provision of tenors in the long term, correlates with investor confidence in these financing instruments (Aassouli et al., 2018). Especially in recent years, Indonesia has issued a sukuk variant that is able to finance green infrastructure called Green Sukuk. This variant has the potential to become a new asset class aimed at finding domestic investors by prioritizing social responsibility and also in accordance with Islamic principles.

Indonesia has committed to finance green projects to prevent environmental damage with Green Sukuk financing, but financing using this instrument remains a challenge that must be borne by investors, governments and corporations. According to OJK, several challenges that must be faced by Green Sukuk in Indonesia to maintain the environment include the following: (Suwanan et al., 2021)

1. The lack of role of financial institutions in identifying risks that have an impact on the environment, this is possible due to the limitations of the auditing authority.
2. Lack of awareness of financial institutions results in high risk and government performance in handling environmentally friendly projects is considered lacking.
3. Eco-friendly projects are long-term projects so that uncertainty in payment due-time is possible.
4. Lack of information about eco-friendly projects.

The costs incurred to issue Green Sukuk are too high, and the lack of regulatory support from the government makes companies reluctant to issue green sukuk (Hania et al., 2022). Pricing issues also accompany the development of Green Sukuk, this determination is intended to be inexplicable price differences for financing using green or non-green financing instruments. On the other hand, by injecting funds into industry, there will be many products produced so that it is feared that it will cause most of the waste of hazardous industrial processes called pollution. This will trigger reputational risks to companies and the state, which will cause very negative perceptions from stakeholders (regulators, investors and local governments) in the future (Aryo Sasongko, 2020).

In the development of Green Sukuk in Indonesia, there are risks in the process of issuing green sukuk to maturity which can be used as information for potential investors and issuers of green sukuk, these risks include: (INS green sukuk, 2020)

a. Financial risks and general risks

Green Sukuk as an investment instrument has the same risk as other bonds, but green sukuk issued by the state has a lower risk than those issued by companies or corporations. Financial risks and common risks of green sukuk include, among others:

1) Default risk is the risk of the issuer's inability to pay the principal and interest on the bond at maturity. In the issuance of Green Sukuk, the risk of default is smaller than other bonds because green sukuk is issued by the government and has been guaranteed by law.
2) Liquidity risk is the risk of low buying and selling power of bonds issued in the secondary market. Liquidity risk has the potential to occur in the sale of Green Sukuk because the reason Green Investors make purchases is to preserve the environment, this is different from the motivation of investors in general who are oriented to get profits. Green investors with these characteristics tend to keep their securities until maturity so that the buying and selling market declines (Fender et al., 2019). Green Sukuk has liquidity risk because it cannot be traded and transferred, but Green Sukuk can be disbursed before maturity by utilizing the Early Redemption facility.
3) Risk of economic conditions occurs due to economic fluctuations such as a decrease in the rate of economic growth, inflation and interest rate increases. This change affects investment activities, raising funds and returning capital along with interest. In a bad economic condition, assets used to finance the green sector have the potential to be stopped because the funds are allocated to sectors that are considered more in need. Mitigation that can be done to minimize financial risks and general risks is to monitor the company's financial ratios and monitor macroeconomic conditions.

b. Reputational risk

Reputation risk is a risk that occurs due to negative public perception and has an impact on the level of confidence of investors and other stackholders. The reputational risk of green sukuk issuance is smaller than corporate sukuk because the government has implemented budget tagging mitigation mechanisms and other special mitigations. Green sukuk reputation risks include, among others:

1) The risk of changing status is a risk that occurs if the business activity used as the underlying does not meet the requirements as an Environmentally Friendly Business Activity (KUBL). In the global context, this change in status is associated with the term green default, which is a standard error related to green investment principles. This risk can also arise in the issuance of green sukuk if the allocation of the proceeds of green sukuk issuance is not carried out properly. Changes to green projects that no longer meet KUBL requirements can also trigger this risk. Green default conditions need to be considered because they can reduce the reputation of green sukuk in the community.
2) Greenwashing risk can be interpreted as a condition where companies or institutions say that they have environmentally friendly projects, when in reality they do not really have environmentally friendly projects and only take advantage of this promotion. This greenwashing risk can have an impact on investors' negative perceptions that claims of environmentally friendly projects are only used as marketing strategies by companies or institutions. This negative perception will harm companies or institutions that actually finance environmentally friendly projects and can lead to lower investor confidence in green projects.
3) Impact risk is a risk that arises due to differences in pre-issuance impact calculations so that the impact of the issuance results is not in accordance with the initial issuance target. The impact can be in the form of results that are smaller than the target or give rise to new impacts from green projects such as environmental pollution. Impact risk mitigation can be done by institutions or companies by compiling a list of reserve assets that are included in the eligible green category.
4) The risk of the company's ESG activities is related to the company's position in mitigating and adapting to climate change impacts, environmental management practices, company waste treatment, employee work safety, fulfillment of employee human rights, corruption and compliance with laws and other government regulations. This activity can affect the perspective of investors in determining whether the green investment that is carried out is really used properly and on target by the company.

Mitigation of reputation risk can be done by issuing transition bonds if the funded project has not met the eligible green criteria and increasing financial statement transparency periodically. The first mechanism for reporting green sukuk is carried out in pre-issuance consisting of the project design to be funded and its value (use of proceed) as well as external supervision related to the suitability of the project with environmental conservation or climate change.

c. Risk of undersubcription

Undersursubsciption is a condition where demand for securities sold does not reach a specified target. This risk can occur if the issuer of securities does not implement marketing strategies and bond issuance timing strategies. Mitigation of undersursubsciption risk in Green Sukuk issuance can be minimized by conducting pre-issuance market research and analyzing identical financial instrument price movements.

d. Market Risk

Market risk in Sukuk instruments is a risk that occurs due to changes in the level of yield in the market (reference

rate) that has the potential to harm investors. Green Sukuk ST 009 has no market risk because the level of yield has been determined at the beginning of issuance so that the returns obtained by investors until maturity are guaranteed (Bank Negara Indonesia (BNI), 2022).

Table 2: Risks of Green Sukuk Retail Financing in Indonesia

No	Risk Type Green Sukuk Financing	Source	Risk Mitigation
1	Financial risk includes default risk, liquidity risk and economic risk	(Alfirman et al., 2020) (Fender et al., 2019)	Monitor the company's financial ratios and monitor macroeconomic conditions.
2	Reputation risk includes status change risk, greenwashing risk, impact risk and corporate ESG activity risk	(Ministry of Finance, 2020)	Issuance of transition bonds if the funded project has not met the criteria for green eligibility and increase transparency of financial statements periodically
3	Risk of *undersubcription*	(Ministry of Finance, 2020)	Conduct pre-issuance market research and analyze the price movements of identical financial instruments

To minimize the risk of sukuk development, policymakers must make new policies in managing all aspects of sukuk financial risk in order to provide stability in prices that will affect investor interest in sukuk securities. In addition, other measures such as, standardization of sukuk issuance, collaboration among government agencies and Islamic regulatory organizations, development of sukuk secondary market, as well as diversification of sukuk issuance make it possible to mitigate various forms of financial risk. Last but not least, literature related to the sukuk market is still limited compared to Islamic banking, so improving literature is a key role in the decision-making process (Boukhtaem, 2022).

IV. CONCLUSION

The climate change crisis that occurs in Indonesia is a global problem that requires solutions to overcome it. The presence of Green Sukuk in Indonesia is expected to be able to support sustainable development programs and commitments to reduce greenhouse gas emissions in Indonesia. The allocation of funds from the issuance of Green Sukuk is used for green projects run by the government in 2019 and 2020, namely Energy Efficiency, Renewable Energy, Sustainable Transportation, Waste and Waste Management for Energy and Climate Change Resilience for Disaster-Prone Areas.

Green Sukuk issuance in Indonesia has 9 Eligible Sectors that are targeted for Green Sukuk financing projects.Indonesia has committed to finance green projects to prevent environmental damage with Green Sukuk financing, but financing using this instrument remains a challenge that must be borne by investors, government and corporations. To minimize the risk of sukuk development, policymakers must make new policies in managing all financial risk apects of sukuk in order to provide stability in prices that will affect investor interest in investing through Green Sukuk.

Research limitations, in research there are still some shortcomings and need to be carried out further research. In the study, only Green Sukuk financing and risks in Green Sukuk financing were discussed, there was no discussion related to the concept of profit sharing in Green Sukuk financing. Hopefully in the future further research can be carried out that will discuss Green Sukuk research in more depth.

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