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OCTOBER 2020 | THE MALAYSIA DEVELOPMENT EXPERIENCE SERIES

Pioneering the Green Sukuk: Three Years On

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Acknowledgements

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Glossary

ACMF	ASEAN Capital Markets Forum
ASEAN	Association of Southeast Asian Nations
BNM	Bank Negara Malaysia
CBI	Climate Bond Initiative
CICERO	Centre for International Climate Research
CNY	Renminbi
CO2	Carbon dioxide
COVID-19	Corona Virus Disease
ESG	Environmental, Social & Governance
EUR	Euro
GBGS	Green Bond Grant Scheme
GBP	Green Bond Principles
GBS	Green Bond Standards
GFSC	Green Finance Certification Scheme
GTFS	Green Technology Financing Scheme
HKD	Hong Kong Dollar
HKQAA	Hong Kong Quality Assurance Agency
ICMA	International Capital Market Association
IDR	Indonesian Rupiah
IFFIm	International Finance Facility for Immunization
IsDB	Islamic Development Bank
KWAP	Kumpulan Wang Persaraan
MPA	Macro Prudential Assessment
MW	Megawatt
MYR	Malaysian Ringgit
OJK	Otoritas Jasa Keuangan
PBoC	People's Bank of China
PNB	Permodalan Nasional Berhad
PNBMV	PNB Merdeka Ventures
SAR	Special Administrative Region
SC	Securities Commission Malaysia
SDG	Sustainable Development Goals
SGD	Singapore Dollar
SRI	Sustainable and Responsible Investment
TWG	Technical Working Group
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
USD	U. S. Dollar
VBI	Value-Based Intermediation
WASH	Water, sanitation & hygiene

Summary

July 27, 2020, marked the 3-year anniversary of the first green sukuk issuance, and there has been tremendous progress in the adoption of the green sukuk as a key capital market instrument to fund environmentally friendly projects. There is widespread awareness, greater technical capabilities in the markets that have embraced the green sukuk, and market-driven product innovation pushing the envelope.

At its core, a green sukuk is financially the same as a "conventional" sukuk or Islamic bond. The one major difference lies in the usage of the sukuk proceeds. For a sukuk to be green, the proceeds can only be used to fund environmentally friendly projects. Standards such as the Green Bond Principles and the ASEAN Green Bond Standards serve to guide the issuance to meet key qualifying criteria.

External reviewers play a key role by providing independent verification that a green sukuk is indeed green. Much like a credit rating agency provides independent credit ratings of a bond or sukuk issuance, so do external reviewers provide independent second opinions of a green sukuk issuance. Financial incentives like the Malaysian Green SRI Sukuk Grant Scheme serve to mitigate the cost of issuing a green sukuk. Impact reports provide investors with information on the environmental impact of the underlying projects financed by the green sukuk.

This note is a stocktaking of the first three years of the green sukuk. Given the small sample size and limited data, the analysis is limited in scope. It covers the basics of what makes a green sukuk, a brief history of the developmental work leading to the first green sukuk, followed by an assessment of the green sukuk market to date, before concluding with some key challenges and opportunities and what this could mean for policy makers and regulators.

Twelve unique issuers in Indonesia, Malaysia, the United Arab Emirates, and one multilateral development bank had used green sukuk to raise approximately USD 6.1 billion in four currencies (EUR, IDR, MYR, and USD) up to July 2020.

FIGURE 1: Green Sukuk Issuance (2017 - July 2020)

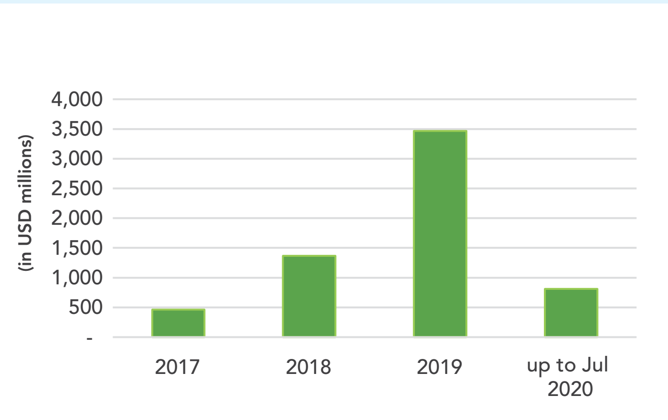
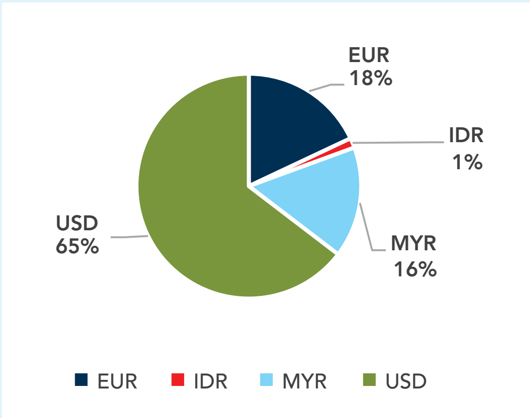


FIGURE 2: Green Sukuk Issuance by Base Currency (2017 - July 2020)



Indonesia's annual sovereign green sukuk issuances continue to show leadership in the public sector including the first retail green sukuk, while Malaysia's corporates are innovating by issuing variations of the green sukuk such as the Sustainable Development Goals sukuk (SDG sukuk) and the sustainability sukuk. The Islamic Development Bank (IsDB) was the first multilateral development bank to issue a green sukuk that was also the first euro-denominated green sukuk.

The COVID-19 pandemic has made a severe impact in 2020, with green sukuk issuance in the first 7 months of 2020 down 44.4% compared with the equivalent period in 2019. This mirrors the global sukuk market which saw a contraction of 9.1% in the first half of 2020, relative to the same period in 2019.[1] Global sukuk issuance dropped sharply in March and April as the pandemic reached markets around the world bringing financial market volatility. International sukuk issuance bounced back in May and June. Fitch Ratings expects global sukuk issuers to diversify their funding bases, continuing a trend in innovation in sustainable, green and hybrid sukuk.[2]

It should only be a matter of time before efforts to tackle climate change and achieve national sustainable development goals begin to manifest in the greater issuance of green sukuk both in terms of number and volume of issuances.

Analysis of several Malaysian solar green sukuk issues showed that this group of green sukuk were priced at a higher spread compared to generic corporate sukuk of a similar credit rating. It is to be noted that these solar green sukuk issues were very small relative to the market preference for larger issues and likely faced high liquidity premiums. With the very small universe of unique green sukuk issuers, it would be inappropriate to draw any definitive conclusions on the performance of the green sukuk as an asset class.

One of the challenges in gaining widespread adoption of the green sukuk as the instrument of choice include the seeming reluctance of issuers other than renewable energy, green building, sovereign and multilateral issuers to embrace it. This could be the result of unfamiliarity with what qualifies to be considered "green". Development of green taxonomies would greatly assist in overcoming these hurdles as they would make identification of green assets much easier.

The green sukuk provides an excellent base for innovation within the area of sustainable finance to target specific themes that require funding. The SDG sukuk and sustainability sukuk are two developments that have appeared within the last 3 years. With a blue bond having already appeared in 2018, could a blue sukuk be far away?

1 Sovereign sukuk dominated issuance in 1H 2020 despite global contraction, RAM Ratings

2 Sukuk Issuance Picking Up after Coronavirus Slowdown, Fitch Ratings

CHAPTER 1

The Green Sukuk

Picture courtesy of Tadau Energy

On July 27, 2017, a new capital market instrument made its debut. Tadau Energy Sdn. Bhd. (Tadau Energy), issued a MYR250m green sukuk to finance a large-scale solar photovoltaic power plant. Neither sukuk, nor the solar power plant, were new concepts. What was new however, was that it was a green sukuk, the first of its kind in the world. By merging green finance and Islamic finance, a new capital market instrument was created to direct hitherto untapped Islamic capital flows towards green assets.

While the first sukuk transaction took place in the 7th century,[3] the first iteration of the contemporary sukuk we see in capital markets today, appeared in 1990 when Shell MDS Sdn. Bhd. issued a MYR125m sukuk.[4] The World Bank issued the world's first green bond in 2008, to meet investor demands for assets that address the challenges of climate change.

In 2015, all United Nations (UN) member states adopted the 2030 Agenda for Sustainable Development, which provides a blueprint to achieve a better and more sustainable future for all. At its core, are the 17 Sustainable Development Goals (SDGs). These goals seek to address the global challenges the world faces, including those related to poverty, inequality, climate change, environmental degradation, peace and justice.

Just as the first contemporary sukuk grew from the need to have a *shari'ah*-compliant instrument with bond-like characteristics, so too did the green sukuk grow from the need to support environmental conservation, using *shari'ah*-compliant financial structures.

Among the precepts of Islam, environmental conservation is both a religious duty and a social obligation, and not an optional matter. The exploitation of natural resources requires accountability and maintenance of the resource.

> *"And do good as Allah has been good to you. And do not seek to cause corruption in the earth. Allah does not love the corrupters", (The Qur'an, 28:77)*

This note is a stocktaking of the first three years of the green sukuk. Given the small sample size and limited data, the analysis is limited in scope by collating data and observations about the development of the green sukuk instrument from its initial appearance in 2017 and the most recent issuances in the first half of 2020. While the past 3 years have seen several green sukuk issuances from South East Asia and the Middle East, the market is still evolving rapidly, and with the limited number of issuances to date, the data sample size is too small to make definitive conclusions. What has been noticeable has been the tremendous progress in awareness, technical capacity or know-how, product innovation and stakeholder involvement in supporting the sustainable development agenda.

3 The History of Sukuk, Camille Paldi (Inter-Faith Finance and Economics Association, IFFEA)
4 What is Sukuk?, BIX Malaysia

Box 1

The Sustainable Development Goals

The SDGs are a collection of 17 goals that are an urgent call for action for all countries to cooperate in a global partnership. Ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.

The Goals are:

1. **No Poverty** – End poverty in all its forms everywhere
2. **Zero Hunger** – End hunger, achieve food security and improved nutrition and promote sustainable agriculture
3. **Good Health and Well-Being** – Ensure healthy lives and promote well-being for all at all ages
4. **Quality Education** – Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
5. **Gender Equality** – Achieve gender equality and empower all women and girls
6. **Clean Water and Sanitation** – Ensure availability and sustainable management of water and sanitation for all
7. **Affordable and Clean Energy** – Ensure access to affordable, reliable, sustainable and modern energy for all
8. **Decent Work and Economic Growth** – Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
9. **Industry, Innovation and Infrastructure** – Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
10. **Reduced Inequalities** – Reduce inequality within and among countries
11. **Sustainable Cities and Communities** – Make cities and human settlements inclusive, safe, resilient and sustainable
12. **Responsible Consumption and Production** – Ensure sustainable consumption and production patterns
13. **Climate Action** – Take urgent action to combat climate change and its impacts
14. **Life Below Water** – Conserve and sustainably use the oceans, seas and marine resources for sustainable development
15. **Life on Land** – Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
16. **Peace, Justice and Strong Institutions** – Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
17. **Partnerships for the Goals** – Strengthen the means of implementation and revitalize the global partnership for sustainable development

Source: The 17 Goals, United Nations Department of Economic and Social Affairs

1.1 Green Sukuk – The Definition

1.1.1 What is a Sukuk?

Sukuk is an interest-free bond that generates returns to investors without infringing the principles of *shari'ah* (Islamic law) which prohibits the payment of interest. It is a *shari'ah*-compliant security backed by a specific pool of underlying assets.

In most practical applications of sukuk, the cash flows that investors see are very similar to what they would see when investing in bonds, making sukuk a suitable alternative for bonds when financing *shari'ah*-compliant projects.

In 2019, the global sukuk gross issuance amounted to USD130.2 billion of gross issuance, a 41.6% jump from USD91.9 billion the previous year. The top five countries by incremental value were Turkey (+320.4%), Qatar (+62.2%), Malaysia (+57.7%), Bahrain (+45.1%), and Indonesia (+26.2%).[5]

1.1.2 What is a Green Bond?

A green bond is basically a regular bond with one key difference; the proceeds raised by the issuance may only be used for environmentally friendly projects, investments and expenditure.

In 2008, the World Bank launched the Strategic Framework for Development and Climate Change to help stimulate and coordinate public and private sector activity to combat climate change. The World Bank Green Bonds, first issued in 2008, is an example of the kind of innovation the World Bank is trying to encourage within this framework.

There are some additional transaction costs associated with issuing a green bond, namely the costs associated with preparing a green bond framework, a Second Opinion review or green certification from an external reviewer, and the monitoring and reporting of the use of proceeds. However, many issuers, especially repeat bond issuers, offset the transaction costs with the following benefits:[6]

- Highlights their green assets/business.
- Positive reputational impact for the issuer's public image.
- Diversification of the investor base – attracting ESG and Green/Sustainable specialist investors.
- Increased collaboration between internal teams such as investor relations, finance, environment, etc. during the issuance process.

World Bank Green Bonds

The World Bank Green Bond raises funds from fixed income investors to support World Bank lending for eligible projects that seek to mitigate climate change or help affected people adapt to it. The initial product was designed in partnership with Skandinaviska Enskilda Banken (SEB) to respond to specific investor demand for a triple-A rated fixed income product that supports projects that address the climate challenge.

Since 2008, the World Bank has issued over USD 13 billion equivalent in Green Bonds through more than 150 transactions in 20 currencies. The global green bond market started to take off in 2014 when approximately USD37bn of green bonds were issued globally.[7]

5 Global Sukuk Issuance 2020, The Edge
6 Explaining Green Bonds, Climate Bonds Initiative
7 Ibid.

A green bond ecosystem involves several components that play key roles in the issuance of the bond. These are in addition to the typical components of a non-green bond issuance. They are:

1. Adherence to best practice standards (national, regional, or international)
2. Primary Actors
   a. Issuers
   b. External Review Providers
   c. Investors
   d. Environmental Specialists
3. Supporting Elements
   a. Incentives

While not all these components are essential to the issuance of a green bond/sukuk, a green issuance would typically involve several or all of these.

1.1.3 What is a Green Sukuk?

A green sukuk is a sukuk that complies with the green principles which a green bond complies with. As the green principles are independent of the underlying financing structure, a green sukuk is issued in a similar manner as a non-green sukuk would be issued, with the addition of the Green Framework that dictates the usage of the issuance proceeds, a Second Opinion report or Green Certification by an independent reviewer, and a post-issuance Impact Report that covers how the funds raised have been used and the environmental impact that has been achieved. It is virtually identical to the additional requirements added on to a bond issuance to make it into a green bond issuance.

The main difference between a green sukuk and a green bond is the underlying financing structure, which is the same difference as between a sukuk and a bond. Green sukuk is a big step towards bridging the gap between conventional financing and Islamic financing. It's a new and innovative financial product that can be used around the world.[8]

Other than meeting sustainable requirements and ensuring funds are channelled to environmentally sustainable projects, the main advantage of a green sukuk is that it appeals to a broader set of investors than a non-green sukuk or a green bond. A green sukuk attracts green investors and *shari'ah*-compliant investors as well as non-green investors and conventional finance investors, whereas a non-green sukuk appeals only to non-green investors, and a green bond attracts conventional finance investors while excluding *shari'ah*-compliant investors. The diagram below illustrates this:

FIGURE 3: Bond and Sukuk Reach for Investors

	Non-Green	Green
Bond	Conventional investors	Conventional investors + Conventional green investors
Sukuk	Conventional investors + Shari'ah-compliant investors	**All investors**

8 Malaysia Green Sukuk, World Bank

As the sukuk structure is inherently suited to project financing, given its asset-backed nature, the green sukuk is also inherently suited for green project financing, such as renewable energy power plants, green buildings, environmentally friendly mass transport infrastructure, etc. Just like a green bond, a green sukuk's proceeds can only be used for environmentally beneficial projects.

1.2 Green Sukuk Issuance Process

The process of issuing a green sukuk is a combination of issuing a traditional sukuk with the incorporation of green elements, like how a green bond is a traditional bond with green elements incorporated. Traditional sukuk issuance process requires overall structuring, timeline tagging and deliverables, which is the same for green sukuk but with the following differences:

Pre-Issuance

1) Use of Proceeds

To begin, it is important to identify the use of proceeds for any green sukuk project. A clear environmental benefit for a project or asset is essential in the pre-issuance process, before any project is brought to the next level. Upon identification of the environmental benefit, it is also crucial that the identified benefit(s) to be measurable or quantifiable, for progress reporting purposes.

2) Project Evaluation and Selection

The process of project evaluation and selection requires the issuer to explain the process to identify, validate and approve the proposed projects to be financed, in the context of green strategy and commitment. For project financing, this step is naturally simpler as the proposed project has already been identified.

3) External Review

An external reviewer is often required to provide an independent review of the green framework of the proposed sukuk issuance. The external reviewer's report is often viewed as essential for investors, for them to make decision on deciding the qualitative factor of the investments, the impact of the use of proceeds to the proposed project. Some external review reports may identify levels of "green-ness"' for each issuance to show level of impact of each project to the environment.

Post-Issuance

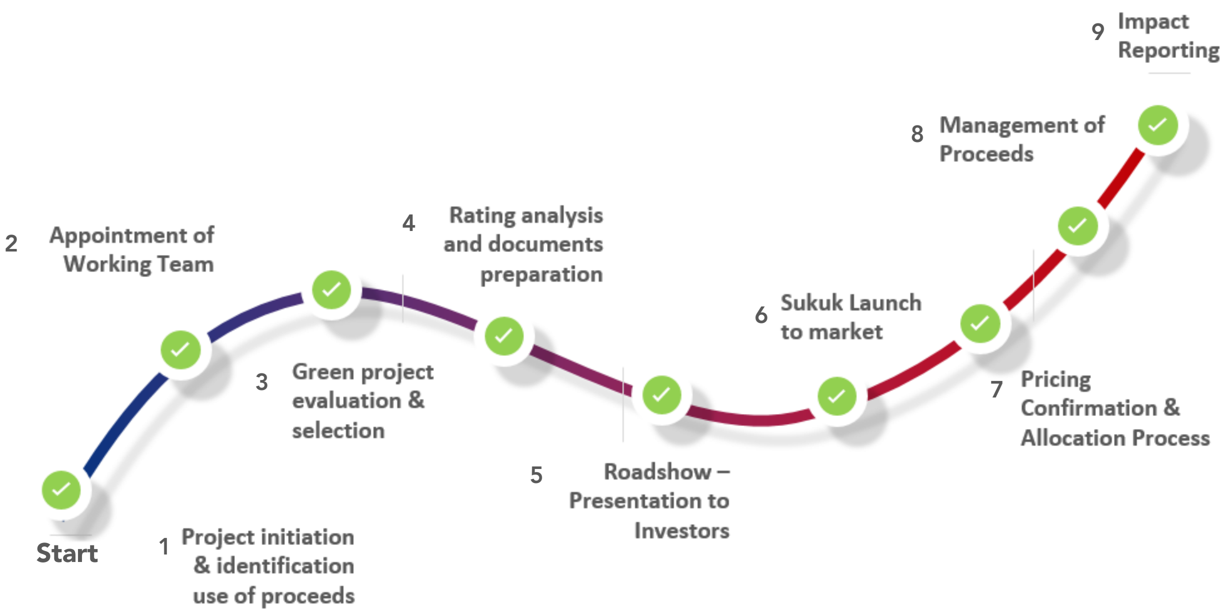
4) Management of Proceeds

After a green sukuk issuance, it is important to segregate the bond proceeds (e.g. using a sub-account or sub-portfolio) or tracked in an appropriate and transparent manner. It is important to provide clarity on intended types of temporary placement for the balance of unallocated net proceeds. Third party verification of internal tracking methods and allocation of proceeds could be done as part of a special audit on top of the normal accounting audit process.

5) Reporting – Impact Reporting

Post-issuance reporting is one of the key elements of green sukuk. The green sukuk issuer is usually expected to report on the progress of the underlying projects and assets. This could be combined with the normal financial reporting process or kept separate. This post-issuance report is called an impact report and is expected to cover quantitative and qualitative elements. The utilization of issuance proceeds and its allocation between eligible projects is a key item to be reported. The impact of the projects on various stakeholders, including quantifiable metrics such as CO2 emissions avoided, or clean energy generated, as well as qualitative elements such as the issuer's sustainability objectives and how the projects financed will meet those objectives.

FIGURE 4: The Process - A Summary from Issuer Perspective



1.2.1 Standards: Green, Social and Sustainability Bond/Sukuk Frameworks

Standards play a key role in providing guidance and rules that issuers need to comply with when issuing a green bond or sukuk. There are several in existence today, that are popular with financial market participants and they play different roles in different regions.

At the global level, the International Capital Market Association (ICMA) has the Green Bond Principles[9] (GBP) that provides broad principles on green bonds. While at the regional level ASEAN Capital Markets Forum (ACMF) has the ASEAN Green Bond Standards[10] that has more specific guidance on how the GBP should be applied across ASEAN. At the national level, regulators sometimes have a national green bond regulations or similar guidance such as Malaysia's Sustainable and Responsible Investment (SRI) Sukuk Framework[11] or Indonesia's Regulation on the Issuance and the Terms of Green Bond.[12]

Upon development of the Green Bond principles and standards, an increasing number countries around the world have established national green bond guidelines and regulations which are mostly aligned with the ICMA GBP. The Philippines has adopted ASEAN GBS as the basis for their green issuances. All ACMF member countries are expected to adopt the ASEAN GBS in their own jurisdictions based on their market readiness. The ASEAN GBS was also developed based on guidance gathered from capital market regulators of the 10 ASEAN countries. Other developments include green bond guidelines from the Ministry of Environment in **Japan**, and green bond listing requirements from **Taipei** and **Johannesburg** Stock Exchanges.[13]

9 Green Bond Principles, ICMA
10 ASEAN Green Bond Standards, ACMF
11 SRI Sukuk Framework, Securities Commission Malaysia
12 The Issuance and the Terms of Green Bond, Otoritas Jasa Keuangan Indonesia
13 Green Bonds Policy: Highlights from 2017, Climate Bonds Initiative

Indonesia's Green Bond Guidelines

On 21 December 2017, the Otoritas Jasa Keuangan (Financial Services Authority, OJK) in Indonesia issued a regulation on green bonds that was geared towards raising capital for green projects. There are four key characteristics of a green bond as identified by the OJK.

- Green bonds can only be issued to finance eligible green projects, 11 types of which are specified by regulation.
- A minimum of 70% of proceeds from green bond sales shall be used to finance the agreed green projects.
- Issuers of green bonds have to manage the proceeds and report on the use of proceeds, and issuers should create a separate account to manage the proceeds or disclose the use of the proceeds in a specific note in the financial statement.
- The environmental benefit of the projects should be clearly defined and verified by an independent third party.

These global, regional and national frameworks, standards and guidelines provides some guidance on the selection of potential green projects. As an example, the Green Bond Principles lists several types of projects such as:[14]

- renewable energy;
- energy efficiency;
- pollution prevention and control;
- environmentally sustainable management of living natural resources and land use;
- terrestrial and aquatic biodiversity conservation;
- clean transportation;
- sustainable water and wastewater management;
- climate change adaptation;
- eco-efficient and/or circular economy adapted products, production technologies and processes;
- green buildings which meet regional, national or internationally recognised standards or certifications.

14 Green Bond Principles, ICMA

Box 2 compares the various structures from global principles to national standards

Box 2

Global, Regional and National Framework/Standards Comparison

	Global		Regional	National
Product Developer	International Capital Markets Association (ICMA)	Climate Bond Initiative (CBI)	ASEAN Capital Markets Forum (ACMF)	Securities Commission Malaysia (SCM)
Frameworks/ Standards	The Green Bond Principles The Social Bond Principles The Sustainability Bond Guidelines	CLIMATE BONDS STANDARD CERTIFIED	ACMF ASEAN Green Bond Standards ACMF ASEAN Social Bond Standards ACMF ASEAN Sustainability Bond Standards	Suruhanjaya Sekuriti Securities Commission Malaysia Sustainable and Responsible Investment Sukuk Framework
Key Element	• Use of Proceeds • Process for Project Evaluation and Selection • Management of Proceeds • Reporting	• Use of Proceeds • Selection of Projects & Assets • Management of Proceeds • Reporting • External Review	• Use of Proceeds* • Process for Project Evaluation and Selection* • Management of Proceeds* • Reporting*	• Utilisation of Proceeds • Process of Project Evaluation & Selection • Management of Proceeds • Reporting
Post-Issuance Reporting				
• Allocation Reporting	Mandatory	Mandatory	Mandatory	Mandatory
• Impact Reporting	Encouraged	Mandatory	Encouraged	-
• Eligibility Reporting	-	Mandatory	-	-
Pre & Post External Review	Encouraged	Mandatory (at least once)	Encouraged	Encouraged

* Elements are similar with ICMA's standards with minor variations as it is intended for ASEAN issuers (ie. geographical restrictions, fossil fuel power generation excluded)

1.2.2 External Reviewers

External reviewers play an important role in providing an independent assessment of the green bond or green sukuk, which assists potential investors in determining the suitability of the issuance for their portfolios. This assessment is often called a Second Opinion review and is similar in some regards to that of a credit rating provided by a rating agency but focused on the environmental aspects.

Some external reviewers grade or score green bond or sukuk on a scale based on their own proprietary methodology. For example, CICERO Shades of Green methodology gives transparent information on how well a green or sustainability bond aligns with a low-carbon resilient future. The opinions are graded light, medium and dark green as per detailed below.[15]

15 CICERO Shades of Green

FIGURE 5: CICERO's Shades of Green

SHADES OF GREEN	EXAMPLES
°C **Dark green** is allocated to projects and solutions that correspond to the long-term vision of a low carbon and climate resilient future.	Wind energy projects with a governance structure that integrates environmental concerns
°C **Medium green** is allocated to projects and solutions that represent steps towards the long-term vision, but are not quite there yet.	Plug-in hybrid busses
°C **Light green** is allocated to projects and solutions that are environmentally friendly but do not by themselves represent or contribute to the long-term vision.	Efficiency in fossil fuel infrastructure that decrease cumulative emissions

An external review of green bond or green sukuk ensures that the bond or sukuk is in line with market expectations and industry best practices. It gives investors' confidence to the green issuances, other than demonstrate to the investors the impact and credibility of the green bond/sukuk.

FIGURE 6: Examples of Second Opinion Reports

source: RAM Sustainability, CICERO

1.2.3 Incentives

First time green bond or sukuk issuers often encounter initial setup costs and additional work when preparing their initial green issuance. These could include developing their green framework, external review costs, new disclosure and reporting requirements. While some of these costs may turn out to be minor in the end, unfamiliarity with the process and costs involved may dissuade potential first-time issuers.

Governments and regulatory authorities have begun to recognize this issue and, in some cases, have begun to offer incentives in the form of subsidies and tax exemptions to overcome the concern of potential issuers as to the initial setup costs.

In June 2017, the Monetary Authority of Singapore launched the Green Bond Grant Scheme, which has subsequently been renamed the Sustainable Bond Grant Scheme. This scheme covers the cost of an independent external review or rating done based on any internationally recognized green/social/sustainability bond principles or framework. Eligible bonds include green, social, and sustainability bonds

issued and listed in Singapore, with a minimum size of SGD200 million, or minimum initial issuance of SGD20 million for a bond program of at least SGD200 million in size; with a minimum tenure of 1 year.[16]

In early 2018, on top of existing tax incentives for issuers of Sustainable and Responsible Investment (SRI) sukuk, Malaysia launched the Green SRI Sukuk Grant Scheme to encourage the issuance of green SRI sukuk by subsidizing 90% of the external review costs faced by issuers, up to a maximum of MYR 300,000. This MYR 6 million (USD 1.5 million, at the time) scheme, administered by Capital Markets Malaysia, is open to domestic and foreign issuers, provided the facility is issued in Malaysia, regardless of currency. Retroactive reimbursements were permitted for any green SRI sukuk issued from July 2017 onwards, which covered all green SRI sukuk issued at the time the scheme was launched.[17]

In China, some examples of interest subsidies by industrial parks have emerged. To date, the Beijing Zhongguancun Administrative Committee has implemented a 40% discount on the interest rate of green bonds with a cap of CNY 1 million of interest discount per issuer per annum, for a maximum of 3 years. The local government provides 40% of the interest rate, which is paid to investors. Shenzhen Futian District government has announced a 2% subsidy on the green bonds interest rate. The People's Bank of China (PBoC) has also introduced new monetary and prudential measures to incentivize green lending: green bonds have been included as eligible collateral for the bank's Medium-Term Lending Facility, which offers three-month loans to commercial lenders, and green credit is being considered as part of its Macro Prudential Assessment (MPA) of banks, meaning the more green assets a bank holds, the higher the score it can receive in the MPA.[18]

The Hong Kong Monetary Authority launched the Green Bond Grant Scheme (GBGS) in June 2018. This scheme provides subsidies to eligible green bond issuers that are certified under the Green Finance Certification Scheme (GFCS) established by the Hong Kong Quality Assurance Agency (HKQAA). The HKQAA certification scheme provides third-party conformity assessment, which is based on international

16 Sustainable Bond Grant Scheme, Monetary Authority of Singapore

17 Green SRI Sukuk Grant Scheme, Capital Markets Malaysia

18 Creating Green Bond Markets, Sustainable Banking Network

standards such as the Green Bond Principles (GBP), China's Green Bond Endorsed Catalogue, and the UNFCCC Clean Development Mechanism.[19]

The full cost of obtaining certification under the GFCS for eligible green bond issuances will be granted, up to a maximum of HKD800,000 per bond issuance. First time and repeat issuers with their green bonds of any tenor issued and listed in Hong Kong and denominated in any currency at a minimum size of HKD500 million (or the equivalent in foreign currency), are welcome to apply. The GBGS will be valid for a period of three years.[20]

Table 1: Summary Table of the Key Incentives for Issuers in South East Asia

Market and Incentive Provider	Incentives	Requirements
Hong Kong SAR - 2018 Hong Kong Monetary Authority *Green Bond Grant Scheme*	100% of green certification cost up to HKD800,000 Scheme valid for 3 years	Eligible projects certified under the Green Finance Certification Scheme (established by the Hong Kong Quality Assurance Agency) Minimum size of HKD500m (or equivalent)
Malaysia – 2018 Securities Commission Malaysia *Green SRI Sukuk Grant Scheme*	90% of external review costs up to MYR300,000 Total scheme covers up to MYR 6 million of disbursements	Green SRI or Sustainability SRI sukuk that meets the eligibility criteria
Singapore - 2017 Monetary Authority of Singapore *Sustainable Bond Grant Scheme (formerly Green Bond Grant Scheme)*	100% of external review costs up to SGD100,000 Scheme expires May 31, 2023	Green, social, and sustainability bonds issued in and listed in Singapore Minimum size of SDG200m or minimum initial issuance of SGD20m for bond program of at least SGD200m in size Minimum tenure of 1 year

19 Creating Green Bond Markets, Sustainable Banking Network

20 Government launches Green Bond Grant Scheme, Government of Hong Kong

1.2.4 Impact Reporting

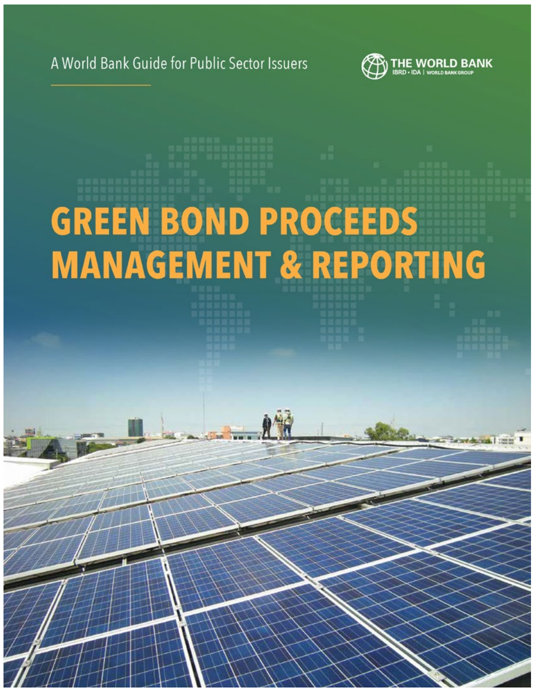
Impact reports are post-issuance reports issued annually by issuers on the utilization of the issuance proceeds as well as the environmental impact of the projects or investments financed by the proceeds. The reported impact of a project should show the portion of total investment cost issuer has financed through the green bond or sukuk issuance. It quantifies the environmental benefits of the projects. Investors use impact reporting to monitor progress and assess the positive and negative results associated with their investments.

The World Bank has published a guide for public sector issuers titled Green Bond Proceeds Management and Reporting.[21]

FIGURE 7: Example of an Impact Report

source: Ministry of Finance, Indonesia

FIGURE 8: World Bank Guide on Green Bond Proceeds Management & Reporting



1.2.5 Investors

Green investors are the group of investors that are mindful of environment related issues and obligations, and supportive of environmental causes. They are willing to shift their investments from one to another on the basis of environmental impact while retaining the need for an appropriate financial return. They view returns not only on the basis of financial returns but also in terms of environmental return. Green investors often encourage the adoption of new technologies that support the transition from carbon dependence to more sustainable alternatives.

In 2018, following the first few green sukuk issuances, Malaysia's civil service pension fund, Kumpulan Wang Persaraan (KWAP), called for more green sukuk to be issued as demand had outstripped supply.[22]

21 Green Bond Proceeds Management & Reporting, World Bank
22 KWAP calls for more green sukuk issuances, New Straits Times

CHAPTER 2

Developing the Green Sukuk

2.1 History of the Green Sukuk

The Government of Malaysia, in its 2010 Budget, detailed plans for advancing towards a high-income economy, via new approaches based on innovation, creativity and high value-added activities. These measures aimed to more than double the per capita income of the population in the next 10 years, with the expectation that Malaysia will fully leverage key areas such as finance and Islamic banking, halal and green technology industries as the means to achieve the economic targets.

In 2016, following strong interest by the Malaysian regulatory authorities and the opportunities presented by the nascent large-scale solar power generation industry, there emerged a unique opening to advance the development of both green finance and Islamic finance, by combining elements of both into a new Islamic green finance instrument, the green sukuk.

Subsequent to discussions with an international fund manager who bemoaned the lack of environmentally-friendly investment assets in South East Asia, a joint meeting was held with Malaysian regulators, namely Bank Negara Malaysia (the central bank) and Securities Commission Malaysia (the capital markets regulator) to discuss the possibility of a new asset class, an environmentally-friendly fixed income security, specifically the green sukuk, as a *shari'ah*-compliant version of a green bond.

A Technical Working Group (TWG) was setup in January 2017, with BNM, SC and the World Bank as members. The World Bank acted as the TWG coordinator. The TWG arranged for a series of seminars and roundtable discussions with financial market participants – investment banks, institutional investors, rating agencies and potential issuers to introduce the green sukuk concept. The World Bank's Treasury provided technical expertise on the structure and issuance process of a green bond.

Malaysia already had an existing Sustainable and Responsible Investment (SRI) Sukuk Framework from 2014 that was compatible with green financing principles, specifically ICMA's Green Bond Principles and this was the regulatory base that the green sukuk used as it was developed.

As potential issuers came forward to express interest in the green sukuk, the TWG provided additional technical support to the financial industry in developing the first few green sukuk issuances. As there were no local green bond or sukuk certifiers that catered to the financial sector in Malaysia, an internationally reputable green certifier, CICERO, was invited to share their knowledge and expertise on Second Opinion reviews of green bonds.

This culminated in the issuance of the first green sukuk in July 2017 by Tadau Energy, to finance its 50MW solar photovoltaic power plant.

Since its establishment in 2016, the World Bank Group Hub in Kuala Lumpur has focused on capacity building in sustainable finance as one of the key pillars of the financial sector work program. A notable accomplishment of this focus was the issuance of the world's first green sukuk in Malaysia facilitated by the World Bank Group, positioning Malaysia as a hub for Islamic sustainable finance.

2.2 Post Initial Issuance Market Education

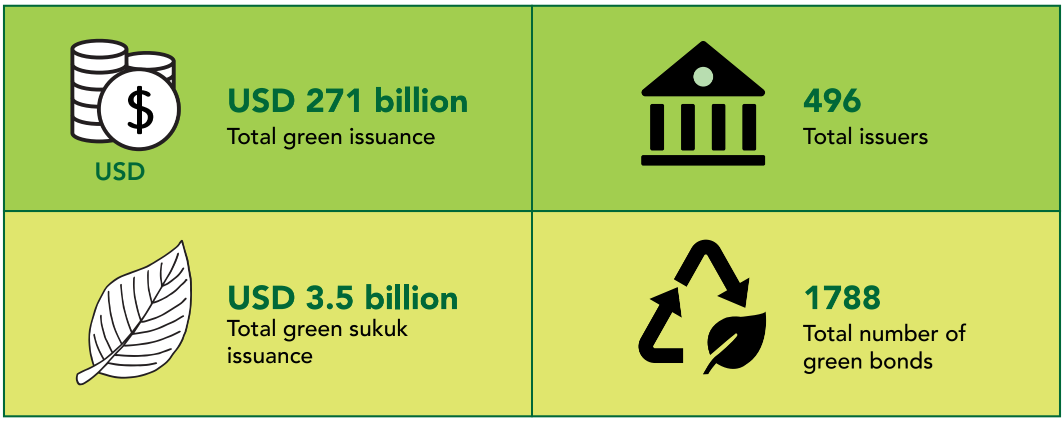
Financial market education activities continued after the issuance of the green sukuk, as the TWG focused on building investor interest, and developing the domestic green certification industry which would provide an invaluable service in support of green finance activities.

Through conferences, roundtables and seminars, these activities have not only enhanced the knowledge and understanding of participants, they have also provided input into policies and strategy in other countries (e.g. Islamic green finance in Indonesia and Kazakhstan; green finance in Fiji, Vietnam and Russia). The events also served to initiate and stimulate debate amongst different stakeholders in the Islamic finance industry (including regulators, policy makers, market players and development practitioners).

Several seminars and workshops on raising awareness on sustainable finance have been organized since 2017. Key stakeholders from financial regulators, institutional investors and financial institutions have shown high level of interest on the ESG agenda. BNM, SC and Bursa have developed their own ESG policies i.e. Value-Based Intermediation (VBI), SRI Sukuk and Fund Framework and Bursa Sustainability respectively.

2.3 The Green Sukuk/Bond Market Today

Global Green Bond Market in 2019



Source: BloombergNEF, Climate Bonds Initiative, internal World Bank research

Global green bond issuance reached USD 271 billion in 2019, up from USD 182 billion in 2018.[23] Green sukuk issuances, including domestic currency sukuk, accounted for USD3.5 billion in 2019.

The 2019 global green bond volume was primarily driven by the European market, which accounted for 45% of global issuance.[24] This was followed by the Asia-Pacific and North American markets, at 25% and 23%, respectively. Out of 1788 green bonds issued, 250 (14%) were from new issuers, totaling USD67.8bn (26% of the total green bond issuance). A total of 51 jurisdictions had green bond issuances, 8 of these jurisdictions were new.

As of July 31, 2020, there has been USD 6.1 billion issuances of green sukuk globally. The green sukuk is a useful financial instrument that has the potential to channel the USD 2 trillion Islamic finance market towards the funding of green and sustainable investment projects.[25] Twelve unique issuers in Indonesia, Malaysia, the United Arab Emirates, and one multilateral development bank had used green sukuk to raise approximately USD 6.1 billion in four currencies (EUR, IDR, MYR, and USD) up to July 2020.

23 Sustainable Debt Sees Record Issuance at $465Bn in 2019, Up 78% from 2018, BloombergNEF
24 2019 Green Bond Market Summary, Climate Bonds Initiative
25 Helping Malaysia develop the green sukuk market, World Bank

FIGURE 9: Green Sukuk Issuance (2017 - July 2020)

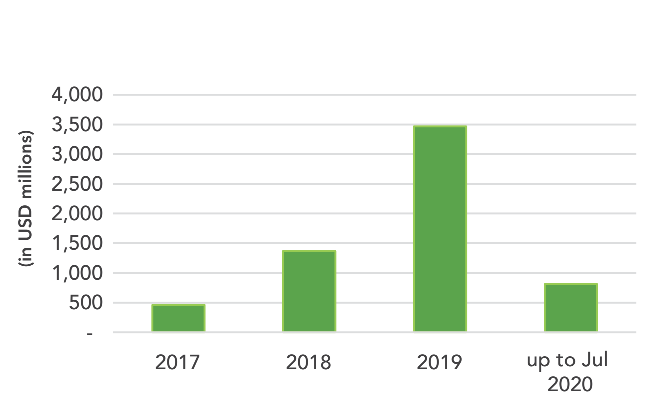
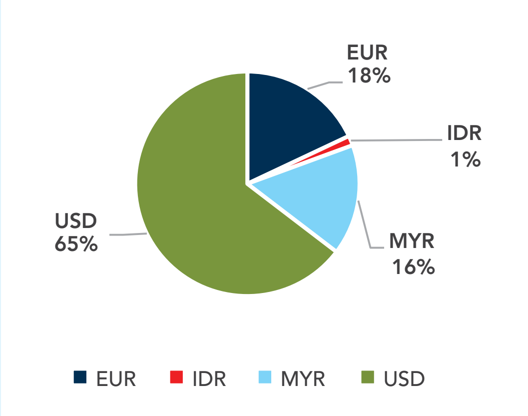


FIGURE 10: Green Sukuk Issuance by Base Currency (2017 - July 2020)



Indonesia's annual sovereign green sukuk issuances continue to show leadership in the public sector including the first retail green sukuk, while Malaysia's corporates are innovating by issuing variations of the green sukuk such as the Sustainable Development Goals sukuk (SDG sukuk) and the sustainability sukuk. The Islamic Development Bank (IsDB) was the first multilateral development bank to issue a green sukuk that was also the first euro-denominated green sukuk.

The COVID-19 pandemic has made a severe impact in 2020, with green sukuk issuance in the first 7 months of 2020 down 44.4% compared with the equivalent period in 2019. This mirrors the global sukuk market which saw a contraction of 9.1% in the first half of 2020, relative to the same period in 2019.[26] Global sukuk issuance dropped sharply in March and April as the pandemic reached markets around the world bringing financial market volatility. International sukuk issuance bounced back in May and June. Fitch Ratings expects global sukuk issuers to diversify their funding bases, continuing a trend in innovation in sustainable, green and hybrid sukuk.[27]

It should only be a matter of time before efforts to tackle climate change and achieve national sustainable development goals begin to manifest in the greater issuance of green sukuk both in terms of number and volume of issuances.

26 Sovereign sukuk dominated issuance in 1H 2020 despite global contraction, RAM Ratings

27 Sukuk Issuance Picking Up after Coronavirus Slowdown, Fitch Ratings

The table below lists the issuances of green sukuk, as of July 2020.

Table 2: List of Green Sukuk Issuance

GBP	ASEAN GBS	SRI (Malaysia)	ISSUER	CURRENCY	AMOUNT ISSUED	AMOUNT ISSUED (USD) [28]	ISSUE DATE	NO OF TRANCHES	COUNTRY OF DOMICILE	FIRST MATURITY	FINAL MATURITY	SECTOR	STRUCTURE
√		√	Tadau Energy	MYR	250mil	58.4mil	27 Jul 2017	15	Malaysia	29 Jul 2019	27 Jul 2033	Renewable Energy	Al Istisna & Ijara
√		√	Quantum Solar Park	MYR	1,000mil	235.9mil	6 Oct 2017	33	Malaysia	5 Apr 2019	6 Apr 2035	Renewable Energy	Murabahah
√	√	√	PNB Merdeka Ventures (Tranche 1)	MYR	690mil	169.9mil	29 Dec 2017	5	Malaysia	29 Dec 2022	29 Dec 2032	Real Estate	Murabahah, Al-Wakalah
√		√	Sinar Kamiri	MYR	245mil	62.8mil	30 Jan 2018	17	Malaysia	30 Jan 2020	30 Jan 2036	Renewable Energy	Wakala Bi-Al Istithmar
√			Republic of Indonesia (SBSN INDO III)	USD	1,250mil	1,250mil	1 Mar 2018	1	Indonesia	1 Mar 2023	1 Mar 2023	Sovereign	Al Wakala Al Istithmar
√	√	√	UITM Solar Power	MYR	222mil	56.6mil	27 Apr 2018	17	Malaysia	27 Apr 2020	25 Apr 2036	Renewable Energy	Murabahah
√			Republic of Indonesia (SBSN INDO III)	USD	750mil	750mil	20 Feb 2019	1	Indonesia	20 Aug 2024	20 Aug 2024	Sovereign	Al Wakala Al Istithmar
√	√	√	Pasukhas Green Assets	MYR	17mil	4.2mil	28 Feb 2019	10	Malaysia	28 Feb 2020	27 Feb 2029	Renewable Energy	Murabahah, Al-Wakalah
√			MAF Sukuk Ltd	USD	600mil	600mil	14 May 2019	1	UAE	14 May 2029	14 May 2029	Real Estate	Wakalah, Al Murabaha
√	√	√	PNB Merdeka Ventures (Tranche 2)	MYR	445mil	107.5mil	28 June 2019	5	Malaysia	28 Dec 2026	28 Dec 2032	Real Estate	Murabahah, Al-Wakalah
√	√	√	Telekosang Hydro	MYR	470mil	112.1mil	6 Aug 2019	15	Malaysia	4 Aug 2023	6 Aug 2037	Renewable Energy	Murabahah, Al-Wakalah
√			MAF Sukuk Ltd	USD	600mil	600mil	30 Oct 2019	1	UAE	28 Feb 2030	28 Feb 2030	Real Estate	Wakalah, Al Murabaha
√			The Islamic Development Bank (IsDB)	EUR	1,000mil	1,100.6mil	27 Nov 2019	1	Saudi Arabia	27 Nov 2024	27 Nov 2024	Green Projects	Wakalah
√			Republic of Indonesia (Sukuk Tabungan Seri)	IDR	1.459 trillion	86.2mil	28 Nov 2019	1	Indonesia	10 Nov 2021	10 Nov 2021	Sovereign (Retail)	Al- Wakalah
√	√	√	PNB Merdeka Ventures (Tranche 3)	MYR	435mil	105.3mil	27 Dec 2019	5	Malaysia	27 Dec 2029	27 Dec 2032	Real Estate	Murabahah, Al-Wakalah
√			Republic of Indonesia	USD	750mil	750mil	17 June 2020	1	Indonesia	17 June 2020	17 June 2025	Sovereign	Al Wakala Al Istithmar
√	√	√	Leader Energy	MYR	260mil	62.7mil	16 July 2020	18	Malaysia	16 July 2021	16 July 2038	Renewable Energy	Murabahah, Al-Wakalah
			Total			6,112.2mil							

Sources: ACMF, BIX Malaysia, Oanda (historical FX rates), various press releases

28 USD equivalent amounts calculated based on currency rates as at the date of issuance.

2.4 Pricing and Performance of Green Sukuk Issuances

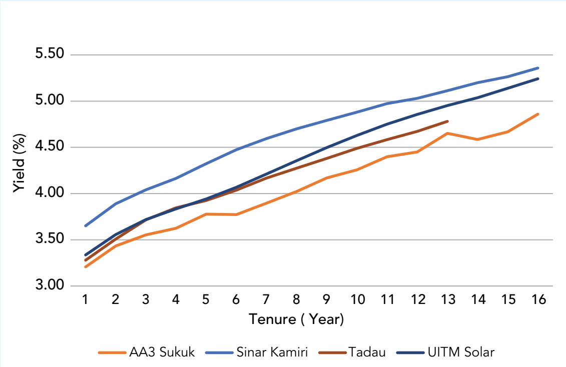
The most popular sector that is being funded by the green sukuk issuance so far, has been the renewable energy sector with 7 unique issuers, of which 5 are solar photovoltaic projects and 2 are hydropower projects. This is consistent with green bond issuance globally, where the energy sector receives the lion's share of green bond proceeds. In 2019, approximately 31% of green bond proceeds went to the energy sector.[29]

2.4.1 Malaysian Renewable Energy Green Sukuk Issuances

When comparing the data for the green sukuk issuers, we have selected to focus on 3 specific solar green sukuk issuers, Tadau Energy, Sinar Kamiri and UITM Solar, as they have the same credit rating and comparable issuance sizes. Trading volumes for the green sukuk are generally low.

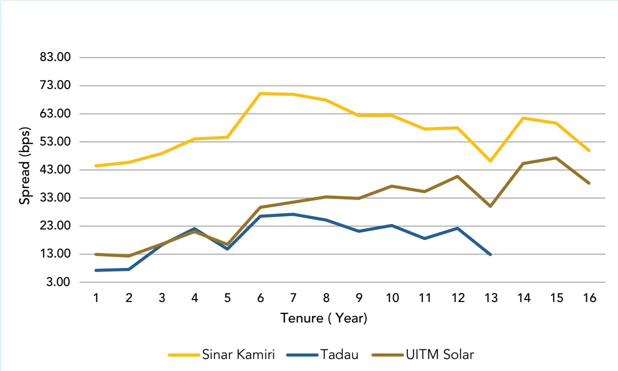
Figure 11 below shows a snapshot of the yield curve of the 3 issuers benchmarked against a generic AA3 Corporate sukuk yield curve dated 15 June 2020.

FIGURE 11: Yield Curve for Malaysian AA3 Solar Green Sukuk vs Corporate AA3 Sukuk as at 15 June 2020



Source: Debt Market Syndicate, RHB Investment Bank Berhad

FIGURE 12: Malaysian AA3 Solar Green Sukuk Spread Over Corporate AA3 Sukuk as at 15 June 2020



Source: Debt Market Syndicate, RHB Investment Bank Berhad

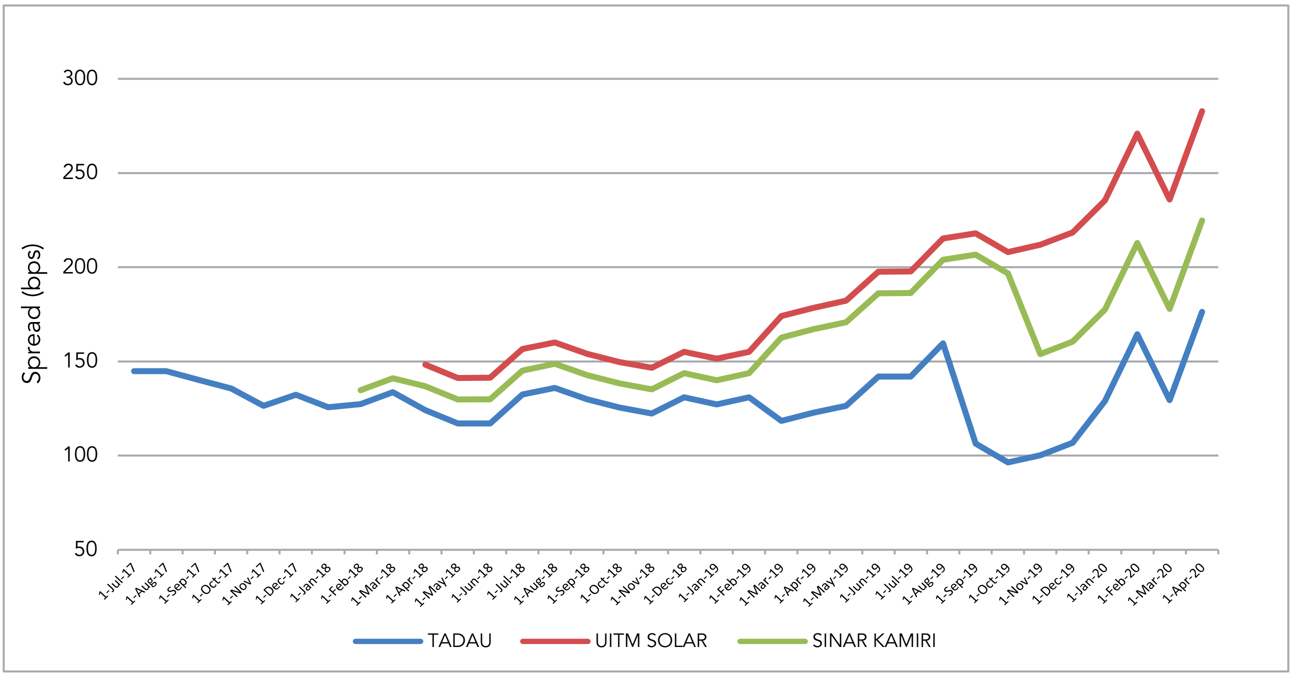
Figures 11 & 12 seems to indicate that AA3 Solar green sukuk in Malaysia prices between 7bp to 70bp above generic AA3 Corporate sukuk. This could mean that investors in the Malaysian capital market see the difference in spreads as reflecting the view that large-scale solar photovoltaic power generation is a relatively new and unfamiliar concept in the country and have thus priced in a higher risk premium.

Picture courtesy of Tadau Energy

29 2019 Green Bond Market Summary, Climate Bonds Initiative

Figure 13 shows the movement of AA3 Solar green sukuk yields for the 5-year tenures over time from issuance date to April 2020 benchmarked against the generic Sovereign Sukuk.

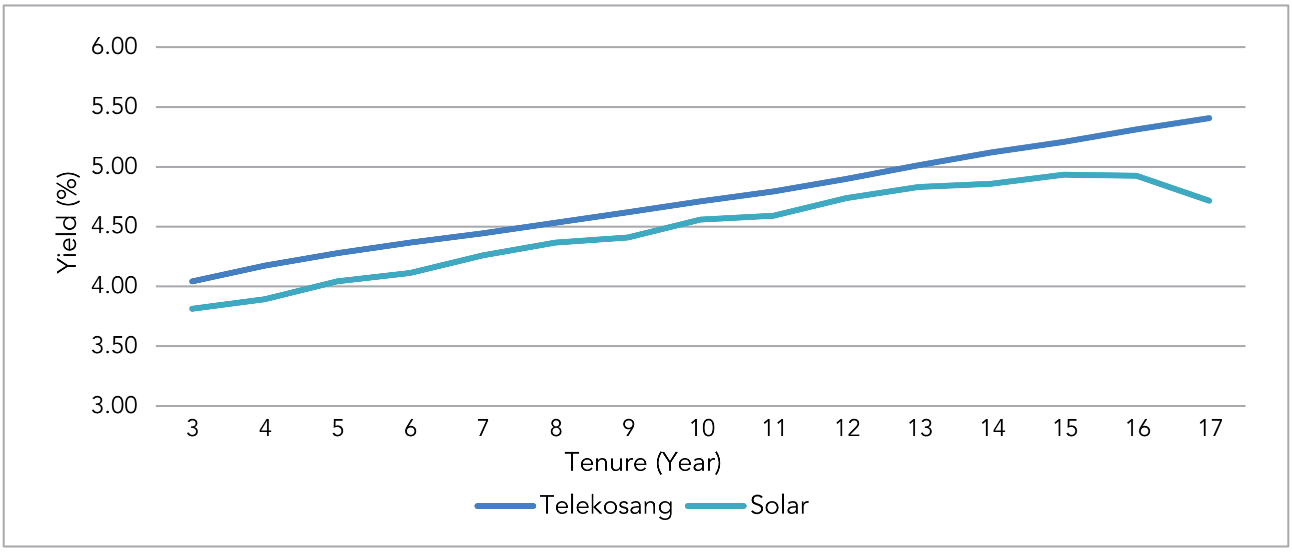
FIGURE 13: 5-Year Malaysian AA3 Solar Green Sukuk Spread Over Sovereign Sukuk



Source: Bond Pricing Agency Malaysia Sdn Bhd.

While the yields of the green sukuk are declining over time as sovereign yields fall, the spread for the issuances are widening, from 120bps-140bps at issuance to 170bps to 280bps above the 5-year sovereign sukuk.

FIGURE 14: Telekosang (Hydro) vs Solar Issuance as at 15 June 2020



Source: RHB Investments Bank Berhad

Figure 14 shows the relationship between Hydro and Solar issuances' yield over tenure, which translate a parallel movement between both issuances. Having said that, Telekosang issuance have a slightly higher yield compared to solar issuance by 30 to 70 bps higher. In the above analysis, data is based on limited number of issuances, whereby for hydro sector, Telekosang sukuk is the only green sukuk to date.

2.4.2 Other Green Sukuk Issuances

PNB Merdeka Ventures (PNBMV) is a subsidiary of Permodalan Nasional Berhad (PNB), a Malaysian state-owned fund manager. Its green sukuk's proceeds were used to fund the development of the Merdeka 118 skyscraper which received green building certification. Globally, green buildings are a major recipient of green bond proceeds accounting for around 30% of 2019 green bond issuance.[30]

Malaysia's sovereign investment fund, Khazanah Nasional Berhad's 10-year sukuk (via it's wholly owned Special Purpose Vehicle, Rantau Abang Capital Berhad rated AAA by RAM Ratings), was considered as the closest comparable sukuk as both are state-owned investment entities. At the time of issuance, PNBMV's spread was tighter than Rantau Abang's by 31 bps. However, as PNBMV's green sukuk is unrated, and very illiquid, no trading price data was available. It is believed that the PNBMV sukuk was purchased by investors who intended to hold it for the long term.

2.4.3 Observations

The trading volume of Malaysian corporate green sukuk in the secondary market is rather low. The dominance of several large institutional investors in the Malaysian fixed income market with the limits imposed by their investment mandates have ensured tepid interest in small debt issues, with preference given to issues exceeding MYR 250 million.[31] This could have been a factor in the higher spreads seen in the solar green sukuk issuances to date, as most of the issuances were very near the MYR 250 million threshold.

The limited supply of green sukuk and the relatively higher yields of the solar green sukuk could also be a contributing factor in secondary market illiquidity as investors hold on to their green sukuk holdings as they fear not being able to replace any green sukuk they sell, with others of comparable credit quality and yield.

Nonetheless, it must be noted that the available universe of green sukuk is still very small, and the limited amount of available data makes it impossible to make a definitive conclusion.

Picture courtesy of PNB Merdeka Ventures. Artist's impression of the Merdeka 118 Tower at night.

30 2019 Green Bond Market Summary, Climate Bonds Initiative

31 Malaysia's Domestic Bond Market: A Success Story, World Bank

CHAPTER 3

Beyond the Green Sukuk

The green sukuk market is relatively small and growing. The World Bank has done various outreach programs to spread the awareness among issuers, financial institutions, investors and other stakeholders with resulting positive feedback. There has been strong interest in the green sukuk especially in countries making strong efforts in implementing the UN SDGs.

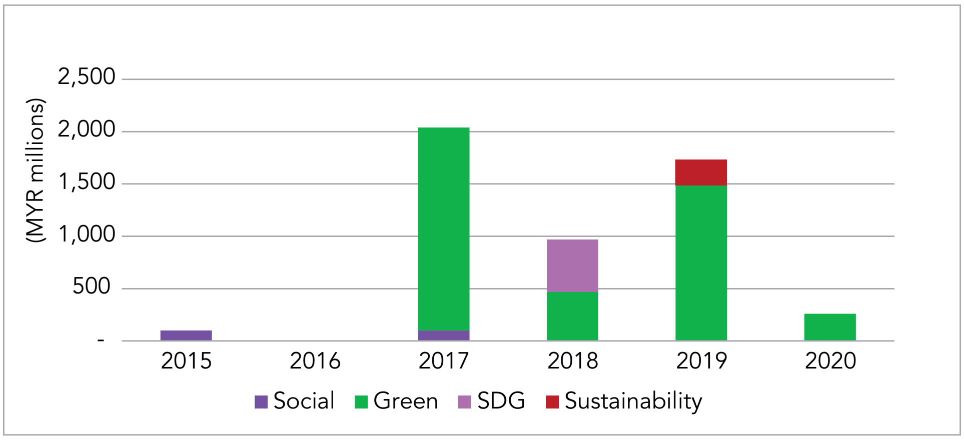
The convergence of environmental and social agendas can be seen as variants of the green sukuk began to appear as early as 2018. SDG sukuk and sustainability sukuk have appeared, combining environmental and social outcomes in their frameworks.

With the COVID-19 pandemic affecting financial markets and the real economies of the entire world, there has been tremendous disruptions in practically every country. In several reported cases, popular tourist sides are seeing lower pollution levels. Cities under lockdown have reported dramatically cleaner air.[32]

With such noticeable impact on the environment, it is likely that greater numbers of investors and consumers will pay more attention to the effect of climate change and the environment in general. Decision makers in the public and private sectors would need to balance financial and non-financial outcomes, with emphasis on environmental returns. Increased sustainability disclosure requirements by public listed companies may become commonplace and result in the adoption of sustainable business practices. This in turn, may filter down from larger corporations to the small and medium enterprises.

The COVID-19 pandemic also brought into focus the need for social support for affected segments of the population in almost every country. Social financing on an unprecedented scale has been brought to bear to strengthen systems and resilience and support the most vulnerable.[33] Sustainability sukuk has already been issued in response to COVID-19.[34]

FIGURE 15: Malaysian Sustainable Sukuk Issuances (2015-1H2020)



Source: Bank Negara Malaysia, ASEAN Capital Markets Forum, World Bank internal research

The Malaysian capital market has seen various types of sukuk that could be grouped under the sustainable umbrella since 2015. In 2015, Malaysia kicked-off the domestic sustainable sukuk market by issuing what would now be considered as a social sukuk.[35] Figure 15 above shows Malaysian sukuk issuances segregated based on their green, social, SDG or sustainability features. The change of government in Malaysia in 2018 temporarily disrupted the pace of overall bond market issuance activity due to the business environment uncertainty, while the COVID-19 pandemic undoubtedly affected the pace of issuance in the first half of 2020.

32 These Cities Now Have Less Air Pollution During Virus Lockdowns, Bloomberg
33 Decisive Action in an Unprecedented Crisis, World Bank
34 Islamic Development Bank Issues USD1.5 Billion Debut Sustainability Sukuk in Response to COVID-19, Islamic Development Bank
35 Khazanah issues world's first ringgit-denominated sustainable and responsible investment sukuk, MIFC

The various flavours of sustainable sukuk have different themes based on their usage of the issuance proceeds. Some of these themes are overlapping and not mutually exclusive, as the green and social sukuk are often also labelled as SRI sukuk. Some of the different themes that have appeared on the market or could soon appear are:

- Green – positive environmental outcome
- Social – positive social outcome
- Sustainability – positive environmental and social outcomes
- SDG – aligned with some or all the Sustainable Development Goals
- Sustainable and Responsible Investment (SRI) – green, social, sustainable, SDG
- Blue – marine & ocean-based projects with positive environmental outcomes

3.1 Social Sukuk

In the case where the proceeds of an issuance are used for social objectives, the issuance could be defined as a social sukuk. ICMA defines Social Bonds as any type of bond instrument where the proceeds will be exclusively applied to finance or re-finance in part or in full new and/or existing eligible Social Projects and which are aligned with the four core components of the Social Bond Principles.

Social sukuk issuance began in 2014 when the World Bank, as Treasury Manager for the International Finance Facility for Immunization (IFFIm), issued the "Vaccine Sukuk". The purpose of the sukuk was to support immunization efforts for children in developing countries. It was the first time sukuk investors had been offered an asset with both economic and social returns.

IFFIm issued two tranches of the Vaccine Sukuk. The first tranche in December 2014 was a 3-year USD500 million transaction whilst in September 2015, a second 3-year USD200 million tranche was issued. The issuances attracted strong demand with the second issuance being oversubscribed 1.6 times. In aggregate, the two Vaccine Sukuks raised USD700 million on orders of well over USD1 billion within a one-year period.[36]

Khazanah Nasional Berhad (via its Special Purpose Vehicle, Ihsan Sukuk Berhad), in June 2015 issued a 7-year MYR100 million sukuk for educational use. The proceeds were channeled to Yayasan AMIR, a non-profit organization to transform 20 public schools under the Trust Schools Programme.

Building on the success of the first issuance, Khazanah issued the second tranche of the transaction in August 2017, raising another MYR100 million with a similar 7-year tenure. This issuance was the first SRI Sukuk in Malaysia to feature a retail offering, which provide retail investors the opportunity to participate in supporting the Trust School Programme. The issuance also introduced crowdfunding platforms as a conduit for the public to subscribe to the transaction.

One WASH Sukuk and Indonesian Cash *waqf* linked sukuk are good examples of impact sukuk. The investors of One WASH sukuk, which was issued in 2019, could be divided into two categories: outcome funders who are committing to funnel a certain amount and will pay at the end of the project once completed, and donors who will financially participate on the first day. The One WASH project aims to raise USD 120 million in outcome funding and USD 60 million in donations. The project attempts to cut cholera deaths by 90 percent and improve the lives of 5 million people in 29 cholera affected OIC member countries. One WASH sukuk will directly and measurably contribute to multiple Sustainable Development Goals (SDGs), including Good Health and Wellbeing (SDG 3), Gender Equality (SDG 5), Clean Water and Sanitation (SDG 6), Climate Action (SDG 13) and Partnerships for the Goals (SDG 17).

36 Vaccine Sukuks: Islamic securities delivery economic and financial returns

Box 3

Social Impact Sukuk

The social impact sukuk that finances projects related to health, agriculture, employment, education, and social welfare can offer both financial and social returns. Impact sukuk are results-based financing tools used to link socially conscious private investors with enterprises that aim to deliver social outcomes. They can be thought of as a tool that draws on elements of impact investing, public-private partnerships, and payment by results financing. Known *as a financial instrument that "pays for success"*, an impact sukuk is not structured as a tradable instrument. Instead, impact sukuk should be thought of as equity-like investments that offer payments to investors based on results achieved, plus a rate of return if targets are met, with the risk of losing the principal invested if they are not. Capital can be recycled as outcome payments are received.

The three key actors in an impact sukuk are *investor, outcome funder* and *service provider.* In the typical structure of an impact sukuk, an investor provides upfront capital to a service provider, who then delivers services to a population in need. Upon the achievement of pre-agreed impact metrics, the outcome funder will repay the investor their initial capital, plus a return. If the impact metrics are not met, the investor is not repaid: since an outcome funder only pays in the case that desired results are delivered. Other participants include the *evaluator,* who verifies if the outcomes have been achieved, and the *intermediary.*

The Brookings Institution collected six common claims about the benefits of impact bonds as follows:

(i) Focus on Outcomes
(ii) Drive Performance Management
(iii) Incentivize Collaboration
(iv) Build a Culture of Monitoring and Evaluation
(v) Invest in Prevention
(vi) Reduce Risk for Government

FIGURE 16: How Impact Bond Transactions are Structured

Source: Brookings Policy Recommendations for the Application of Impact Bonds (2015)

3.2 Sustainability Sukuk

Aside from purely green sukuk and purely social sukuk, a combination of green and social outcomes can be defined as a sustainability sukuk. ICMA defines a Sustainability Bond as bonds where the proceeds will be exclusively applied to finance or refinance a combination of both Green and Social Projects.

Sustainalytics briefly explained Green, Social and Sustainability Bonds as below:

FIGURE 17: Green, Social and Sustainable Bonds

Source: Sustainalytics

On October 11, 2019, the first Sustainability Sukuk was issued by Edra Solar Sdn. Bhd. to refinance the construction costs of its 50MW solar power plant in Malaysia which also included a social component, namely land set aside for agricultural use by local farmers. This is a key milestone marking the first time green and social elements had been incorporated in a single sukuk issuance.

3.3 SDG Sukuk

SDG sukuk, are focused on specific SDGs. HSBC Amanah Malaysia Berhad, issued the first SDG sukuk on September 20, 2018. This sukuk was targeted at explicit goals such as good health and well-being (SDG 3), quality education (SDG 4), clean water and sanitation (SDG 6), affordable and clean energy (SDG 7), industry, innovation and infrastructure (SDG 9), sustainable cities and communities (SDG 11) and climate action (SDG 13).

3.4 Blue Sukuk

While no blue sukuk has been issued at the time of publication, blue bonds have already appeared on the global stage following the issuance of Seychelles' sovereign blue bonds in 2018.[37] The blue bond is designed to support sustainable marine and fisheries projects. It is likely only a matter of time before the first blue sukuk is launched, probably by coastal nations with Islamic financial markets.

37 Seychelles launches World's First Sovereign Blue Bond, World Bank

CHAPTER 4

Lessons Learnt

4.1 Missed Opportunities

For an issuer to issue a green sukuk, a few additional steps that have been outlined earlier, are needed. These additional steps are within the capability of most issuers. However, not all issuers make that decision to tap into the sustainable finance market.

We have identified a few issuances in Malaysia recently, that had potential to be a green sukuk, but did not take the additional steps to issue a green sukuk in the capital market:

- A national water asset company issuance to fund a national water industry restructuring exercise. This issuance was issued in 2019 and had the potential of being a green sukuk issuance as the underlying projects were managing new and existing water supply assets.
- In 2019, a sukuk was issued by a renewable energy company, which did not take the additional step of making it a green sukuk. As the usage of proceeds were similar to that of the other solar sukuk in Malaysia, this too had the potential of being a green sukuk issuance if the issuer had taken the extra steps.
- In 2020, there was a sukuk issuance by a rail transport company where the utilization of proceeds was for the construction of the rail network. This issuance had the potential to be a green issuance if the additional steps had been taken.

4.2 Challenges and Opportunities

The first few green sukuk issuances attracted significant publicity, and following the initial issuances in 2017, there have been several additional issuances, primarily in Asia. Environmentally linked fund-raising became more common in South East Asia, both in the capital and loan markets. There have been many reported success stories for green sukuk, predominantly in Asia. Moody's expects that the green sukuk issuances in Malaysia and Indonesia are likely to stimulate greater issuance as efforts to combat climate change gain traction.[38] Indonesia to date, has the largest amount of green sukuk issuances by value, while Malaysia has the largest number of green sukuk issuances. Both Indonesia and Malaysia are leading the way on global green sukuk development and innovation.

Challenges

Notwithstanding the positive prospects for green sukuk, the future of green sukuk is hindered by several challenges and constraints. These challenges could hamper green sukuk issuance growth.

Project-based green sukuk issuances, common in Malaysia, have so far, mainly focused on renewable energy, with some green real estate exposure. While this is commendable, it runs the risk of overly associating green sukuk with renewable energy and green real estate to the detriment of other sectors. Green sukuk could be used to finance a much wider range of projects, beyond renewable energy and green real estate.

Potential sectors and types of projects that could be financed by green sukuk include renewable energy, waste management, solid waste management, resilient infrastructure, build environment, greater efficiency in transportation and clean transportation, energy efficient building construction, reforestation and avoided deforestation, protection against extreme events, agriculture, sustainable land use, forests and ecological resources, energy efficiency, pollution prevention and control, biodiversity conservation, etc.

Another major challenge would be the identification of green assets and projects. Many financial institutions in the developing world do not differentiate between green and non-green assets in their portfolios and

38 Global sukuk issuance to rise for fourth year, Moody's

are thus unable to identify a pool of green assets for a green sukuk issuance. In the case of Malaysia's Green Technology Financing Scheme (GTFS), the loans under the scheme were not tagged by domestic banks as green loans but rather as SME or corporate loans. Development of green taxonomies would greatly assist in overcoming such hurdles as they would make identification of green assets much easier. The World Bank has published a guide on green taxonomies, Developing a National Green Taxonomy: A World Bank Guide.

Because usage of proceeds is a major criterion in the issuance of green sukuk, such issuances restrict and prevent the use of proceeds for mixed green and non-green projects. Issuers implementing both types of projects would be required issue separate sukuk to finance each type of project. For public sector issuers, strong policy coordination is required since the issuance of sovereign/subnational green sukuk will typically involve separate government agencies such as the Ministries of Finance, Environment, Natural Resources, Energy, etc. This may be an issue for some public sector issuers, while others, such as Indonesia, do not appear to consider this to be a major problem as they continue to issue both types of sukuk simultaneously.[39]

Potential issuers face a learning curve if they are issuing a green instrument for the first time. When the green sukuk was being developed, there was initial resistance from financial intermediaries acting on behalf of their corporate clients, who were unfamiliar with green financing concepts. The initial steps for a green issuance, would likely require a slightly longer time frame for potential issuers exploring issuing green sukuk for the first time.

There is also the marginally higher cost associated with a green issuance. This is primarily due to the development of the green framework, the cost of a second opinion review by an external reviewer, and the cost of impact reporting post-issuance. In some countries, there are financial incentives by the government to defray in part or in full, some or all these expenditures. But these incentives are not uniform across countries.

Secondary market trading for green sukuk is still relatively low, given the scarcity of green sukuk. This hampers the investors searching to add green sukuk to their portfolios. However it could also be a reflection of the popularity of the green sukuk if the reason why the trading volume is low is because demand is strong and investors are reluctant to trade their green sukuk holdings out of fear of being unable to replace them with other green sukuk.

Opportunities

Potential green sukuk issuers that have existing conventional sukuk issuance facility programs could consider using the same facility to issue green sukuk, if they have a green framework prepared for the green tranche to be issued. Where such actions are possible, this could result in time and cost savings for a green sukuk issuance.

Many potential issuers may not be aware that refinancing of proceeds already utilized for green projects is allowed under the Green Bond Principles. This means the issuer could initiate their green project and issue the green sukuk afterwards. This is an additional option that potential issuer could consider.

The financial markets are constantly evolving. The Republic of Seychelles blue bond represents continuing evolution in the sustainable finance. With several major users of Islamic finance having considerable exposure to marine environments through coastlines, a logical next step when considering marine projects would be the possibility of funding them via a blue sukuk. Just as it was possible to make the jump from green bond to green sukuk by overlaying the green framework on top of a sukuk, it is also possible to overlay a blue framework on top of a sukuk to create a blue sukuk.

39 Press Release GN3 Sukuk Issuance 2020, Bank Indonesia

Conclusion

The green sukuk marked a key turning point in both sustainable and Islamic finance by combining the environmental principles of the green bond and the *shari'ah*-compliant financial structure of the sukuk. In the three years since the first green sukuk made its appearance to fund a solar renewable energy project, other green sukuk issuances have appeared to finance green buildings, a hydro renewable energy project, as well as sovereign issuances. Meanwhile variants such as SDG sukuk and sustainability sukuk reflect the evolution of the green sukuk as market-driven innovation takes the thematic sukuk concept to new heights.

The support of capital market regulators as well as public sector involvement is essential in encouraging the adoption of green sukuk use, and these have appeared in the form of regulatory changes, standards setting as well as financial incentives for potential issuers. Indonesia's annual issuance of sovereign green sukuk shows strong government support for climate financing. The ASEAN Capital Markets Forum, representing all 10 ASEAN capital market regulators, have launched the ASEAN Green Bond, Social Bond and Sustainability Bond Standards to set a common base for ASEAN issuers with 126 unique tranches of compliant bonds and sukuk issued by July 30, 2020.[40] Malaysia's Securities Commission continued to update its Sustainable and Responsible Investment Framework to enhance its domestic capital market's capacity, while its unit, Capital Markets Malaysia administers a financial incentive scheme for issuers of green sukuk.

The small universe of green sukuk issued to date make analysis of pricing data and trading volumes inconclusive and prone to conjecture. However, it is important to recognize that issuers are continuing to tap the market, and this bodes well for the future of green sukuk and its variants.

40 List of issued ASEAN Green, Social and Sustainability Bonds, ACMF

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