



How Green *Sukuk* Structure Contributes to SDGs?

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INTRODUCTION

Sukuk is the Islamic alternative for bond securities. It serves the purpose of raising funds for the *sukuk* issuer. The rapid growth and the worldwide acceptance of the Islamic finance allowed the expeditious development of the *sukuk*, which in its structure or practice possess an interesting component that set it apart from its conventional counterpart. This component is the underlying asset for the investment (Safari 2012; Usmani 2008). According to the International Islamic Financial Market (IIFM) 2019 report, the global *sukuk* issuance grew from 20 billion to 138 billion, in the period between 2001 and 2013 before drastically declining to 67,82

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billion in 2015. Based on the report, after 2016 it started increasing with a score of total global issuance of *sukuk* of 123,15 billion USD in 2018 (International Islamic Financial Market 2019).

Sukuk has been issued to cater for various kinds of projects both in the public and private sectors. The present chapter focuses on Green *sukuk*, issued for climate and environment-related projects such as those related to preventing pollution, providing efficient energy, sustaining agriculture, fishery and forestry, providing clean water and transportation, and protecting the aquatic ecosystem. All these objectives for the issuance of Green *sukuk* are in line with the Shari'ah that strongly opposes any form of environmental degradation and instead promotes sustainable environment free from pollution and the mismanagement of the ecosystem. Muslim scholars have provided several Shari'ah guidelines, norms, and moral values to limit human greed in utilizing earthly resources. They advocate moderation in the use of these resources. Such moderation creates a balance between the individual and societal goals and rights. Green *sukuk* is also seen as one of the means for achieving the sustainable development goals or SDGs. There are already substantial evidences from Muslim governments like Indonesia, Malaysia, and many others, who are embracing SDGs in their financing modes, including *sukuk*, for the greater purpose of economic growth and social welfare (Mat Rahim and Mohamad 2018; Usmani 2008). Green *sukuk* issuance for SDGs-related projects includes the solar power plants, clean technology investments, and climate adaptation projects (Dorsman et al. 2016; Islamic Development Bank 2019).

GREEN SUKUK AND THE PROJECTS THEY FUND

The dynamism of project financing and the well-established financial systems have helped communities grow and prosper, which in turn have enhanced their social development in many aspects. Finance methods vary in their uses, for example syndication, SPVs, public leasing, structured financing, and many more in accordance with the specificity of the projects they fund. From an Islamic perspective, the project financed must be of great relevance to the interest of the society as a whole and obviously does not in conflict with the Shari'ah requirements. The Shari'ah compliance must also extend to the financing methods as well, free from interest and risk shifting, which are the features of the conventional financing methods (Moghul and Safar-Aly 2014).

As already established, Islamic finance promotes social welfare through various forms of financing that are based on equity and fairness, preservation of ethical values, and ensuring financial inclusion. The Islamic finance industry continues, in addition to the already existing Shari'ah compliant products and services, to develop new products and instruments, including *sukuk*, which is perceived as the Islamic alternative for the conventional bonds. *Sukuk* entered the financing world with their unique features and continue to attract the attention of the Islamic as well as the non-Islamic markets. *Sukuk*, which was first introduced in the late 1980s, are financial assets issued to investors entitling them a risk-shared profits and are free from elements deemed unlawful in the Shari'ah such as interest and speculation. The participants in the *sukuk* market now comprise largely the growing Muslim populations especially the middle east, north Africa and Asia, making them the second fast growing market of Islamic finance (Dorsman et al. 2016). According to (Bahari et al. 2016; IIFM 2017), the global *sukuk* issuance was US\$138 billion in 2013 and US\$100 billion in 2014. Meanwhile based on the report from (Thomson Reuters 2014), the global *sukuk* issuance is estimated to reach US\$250 by 2020. This figure is slightly higher based on Dorsman et al. (2016), which was estimated at US\$116.4 billion in 2014 of global *sukuk* issuance with a market value of US\$300 billion in the same year resulting in an increase of 11.4% compared to 2013. Despite all these variations in the estimate, the figures show significant growth rate in the *sukuk* market. There was only a huge decline in 2015 of nearly US\$68 billion of global *sukuk* issuance, but at the end of 2018 the global *sukuk* issuance picked up and recorded a figure of US\$123.2 billion (International Islamic Financial Market 2019). The *sukuk* structure has many layers, which may be complicated and challenging to understand. This at the initial phase of *sukuk* issuance compelled many investors to opt for the simple debt-based conventional bond structure rather than issuing *sukuk*. Nevertheless, Dorsman et al. (2016) stipulate, the US and the Eurozone crisis and the credit crunch forced many more to shift to *sukuk* market. Also due to the low volatility of *sukuk* and the risk-sharing aspect, make *sukuk* more prosperous in comparison with the conventional bond (Thomson Reuters 2014).

Sukuk and conventional bonds have some similarities, but in theory they structurally vary significantly. Regarding similarities, *sukuk* and bonds are issued to raise funds for generally large projects, where these are often for long periods of time and with lower risks (relatively). They are also,

due to the substantial amount of capital involved, issued by large entities and governments, and exclude individual contribution (if not as investors) most of the time. On the other hand, they are different in operations, legal and regulatory frameworks, where conventional bonds consist of funds lent to the bond issuer and at the maturity paid back with interest, whereas in the *sukuk*, in addition to the absence of interest, a tangible asset is at the center of the operation and the investors get returns from the funds generated by the asset. Also, the projects funded through *sukuk* must be Shari'ah compliant, though there is no such restriction for the conventional bond. Moreover, beyond the yield to maturity differences, in *sukuk* the risk is shared and the returns are not predetermined or fixed as in conventional bonds, whereby the risk is borne by the bond issuer which makes the investors entitled to predetermined and fixed returns (Safari 2012; Usmani 2008).

Sukuk has different types of structures, such as Ijarah *sukuk*, Istisna *sukuk*, Musharakah *sukuk*, Murabahah *sukuk*, Mudharabah *sukuk*, Salam *sukuk*, and Wakalah *sukuk*. These structures combined with other Islamic finance instruments are determined in accordance with the nature of the project in hand (Bahari et al. 2016; Moghul and Safar-Aly 2014; Mat Rahim and Mohamad 2018).

While *sukuk* in general are used to fund wide range of products, Green *sukuk* are specifically directed to funding environmentally friendly projects. The term 'green' refers to the *sukuk* focus on environmentally sustainable initiatives and renewable energy projects. The global environmental concern and the urgency for response to such concern have motivated people to come up with different solutions, which include Socially Responsible Investments, Circular Economy, the Green *sukuk*, the Green Bonds, among others. The motivation for Green *sukuk* is driven not only by global concern but by the Shari'ah regards for the environment as well. Green *sukuk* is similar in form and substance to the general *sukuk* structures, which grant investors the ownership of the underlying asset used to raise funds for the green projects—a feature that sets Green *sukuk* apart from its conventional counterpart—the Green bond (Dorsman et al. 2016). The generic structure for Green *sukuk* is shown in Fig. 32.1.

The use of an underlying asset and the proceeds derived from it are evident that this kind of structure contributes to the real economy, hence ensuring prosperity and sustainability of the economy. The projects funded by Green *sukuk* are Shari'ah compliant and environmentally

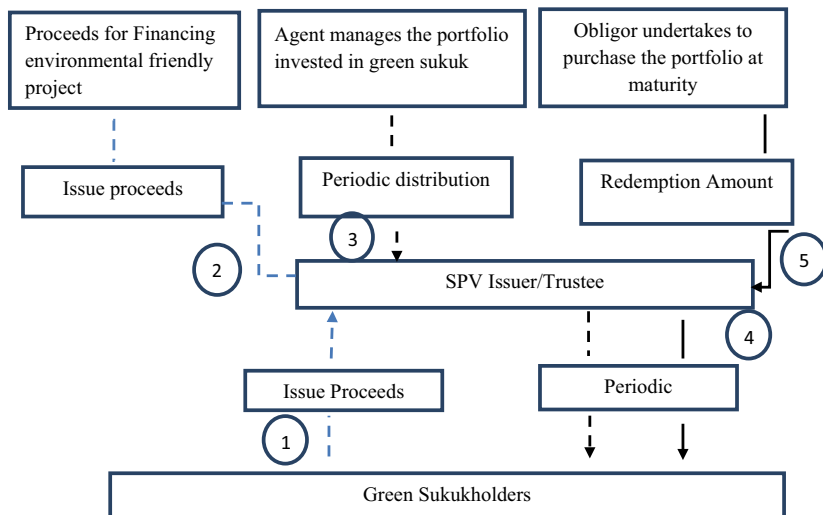


Fig. 32.1 Generic structure for Green *sukuk* (Source Adapted from [Mat Rahim and Mohamad 2018])

conscious projects aimed at preserving the natural resources and assuring the next generations of their fair share. Green *sukuk*-funded projects include the solar power plants, clean technology investments, clean energy, climate adaptation and low-carbon projects, financing construction light rails, and electric vehicles. Below are examples of selected projects funded by Green *sukuk*.

The ‘One solar watt per person,’ a 50 MW photovoltaic solar project, illustrates a great example for projects invested or funded by Green *sukuk*. This project was mandated by two Australian lighting/solar companies; ‘Mitabu Australia and Solar Guys International’ for Indonesia but initiated and issued by Malaysia. The US\$550 million multi-phases project was funded US\$150 million in the first phase in late 2012 (Dorsman et al. 2016). Solar projects are known for their advantages, whether the light and smooth installation process or the quick revenue streams just after several months and this project was designed to provide clean and renewable solar power (Reve 2013).

Tadau energy solar photovoltaic and Bakun Hydroelectric are other Green *sukuk*-funded projects, issued, respectively, by China and Malaysia.

Tadau issued in 2017, a 10-year project of RM 250 million [Malaysian Ringgit] to set up a 50 MW solar photovoltaic for a small region called Kudat in the district of Sabah. Bakun hydroelectric on the other hand was 2400 MW hydroelectric plant with 30 years of period project managed by Sarawak Energy Berhad owned by Sarawak state, for the purpose of building a 205-meter high wall with an estimated cost of US\$1.6 billion. The electricity charges were planned to be 6.25 cents per kilowatt with an increase (annually) of 1.5% (Mat Rahim and Mohamad 2018).

The Green Building *sukuk* project by PNB Merdeka Ventures Sdn. Bhd is 15 years project to build 83 story building in Malaysia. The project was issued by Permodalan Nasional Bhd., a government-linked company, with a cost of RM 2 billion.

The Green Building *sukuk* project has several benefits from the building, the issuer, investors, and the society at large. For example, the building adopts a feature of low-carbon emission, the issuer and the investors earn good reputation from the eyes of the society, and the society develops social conscience toward the environment. Owing to the Green *sukuk* requirements, the issuer is obliged to disclose the use of the proceeds to the investors along with an annual report comprising the amount disbursed and the use of the funds. Moreover, the building must manifest sustainability features that affirm low waste and carbon emission, low consumption of water and energy...(Kamil et al. 2019).

The Orasis *sukuk* were other Green *sukuk*-funded project. The *sukuk* were 10 years, French issued Green *sukuk* project in 2012 by solar energy specialized and real estate investment company, Legendre Patrimoine and Anouar Hassoune Conseil, an Islamic Finance consultancy firm (Dorsman et al. 2016). The *sukuk* were the second to ever be issued in France after the Shari'ah compliant catering SME project of €500,000 in the same year. This project also enabled individual contributions or investments alongside institutions with a single overseas share cost of €5425 and a cost of €5890 in France. Depending on the shares acquired, the investor becomes entitled to ownership of solar farm shared ownership (Alam et al. 2016). Figure 32.2 shows the structure of the Orasis Green *sukuk* funded project

Despite the robustness of the Orasis Green *sukuk* structure in Fig. 32.2, the project failed 2 years after the issuance. This is due to numerous factors that included crisis couple years prior to the project, liquidity crunch, and decrease of redemption value. Nevertheless, this Green *sukuk* displayed unprecedented features, the first of their kind that

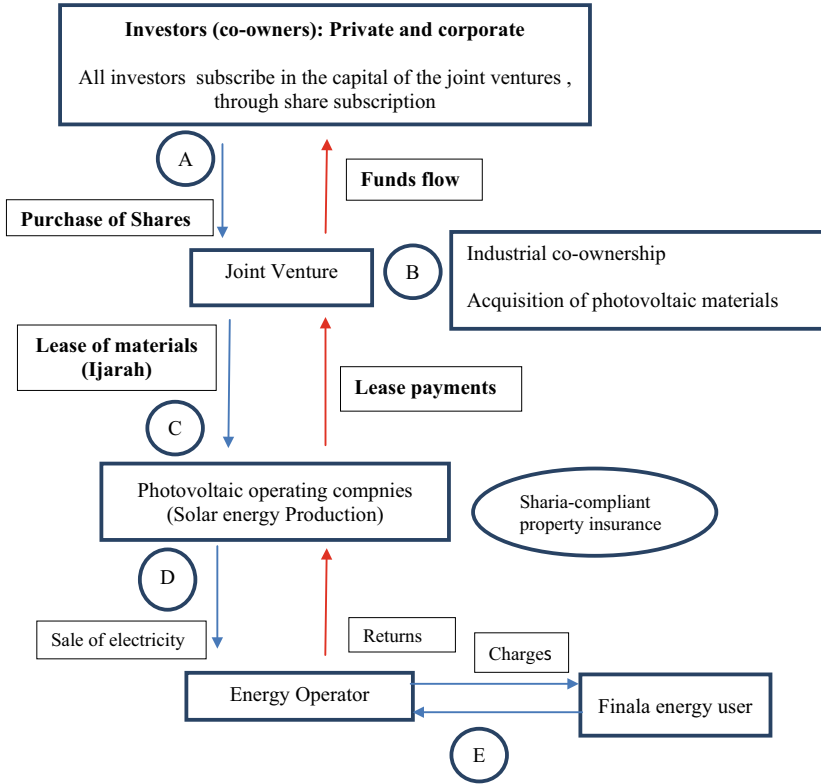


Fig. 32.2 The structure of the Orasis Green *sukuk* Project (Source Adapted from Dorsman et al. [2016])

paved the way for many other green *sukuk* projects (Dorsman et al. 2016). Green *sukuk* has enormous capacity to finance housing, clean transportation, sanitation, and water projects, among many others. This is despite the fact that it is a new concept and constitute less than 0.25% of the bond market (Dorsman et al. 2016).

GREEN SUKUK AND SDGs

This section comprises two interconnected subsections, sustainable development goals (SDGs) and the contributions of Green *sukuk* structure to SDGs.

Sustainable Development Goals

Sustainable development in the wider meaning refers to finding ways of improving the present without affecting negatively the future (Kates et al. 2005). There is yet the universally accepted definition with the underlying meaning that progress and advancement should not be at the expense of the future generations, the familiar slogan, ‘leave no one behind.’ The sustainable development goals set by the UN, came in the aftermath of the climate and global crisis, which also coincided with the failure of the Millennium Development Goals (MDGs) (Sachs 2012), proposed in the Rio + 20 summit in June 2012. This international framework of SDGs involves civil society, governments, international Institutions, academics, private sector... basically all people (United Nations 2015), and the main topics (where almost 300 issues were evoked) evolved mostly around; ‘Oceans, sustainable development as an answer for economic and financial crisis, Water, Forest, Sustainable development for poverty, food nutrition security, innovation and cities, unemployment, decent work and migration, sustainable energy for all, consumption and production patterns...(United Nations General Assembly 2015) After 3 years, following the 2015 Addis Ababa summit (United Nations General Assembly 2015), 17 goals (and 169 targets) were proposed.’

These goals are ‘No poverty, zero hunger, good health and wellbeing, quality education, gender equality, clean water and sanitation, affordable and clean energy, decent work and economic growth, life below water, climate action, responsible consumption and production, industry, innovation and infrastructure, life on land, reduced inequalities, peace, justice and strong institutions, sustainable cities and communities and finally partnership, to stimulate action for the next 15 years.’ These 17 goals are often broadly categorized into 6 (sometimes 5) general goals, which are people, dignity, prosperity, planet, justice (or peace), and partnership. To achieve these 17 goals, immense data collection would take place beforehand, to determine on the equitability and fairness in the

implementation process, taking into consideration the different communities within a country as well as between countries. This implies that if one community in a country failed to attain those goals, the whole country is deemed a failure. The structures of the SDGs are extremely interconnected and require interdepartments (between countries also), efficient relations, cross sectoral activities/information and policy coherence, whereby in results, the development indicators of the country is regarded as more accurate with SDGs, in comparison with MDGs (Sachs 2012). Furthermore, the MDGs had only 8 goals (and 21 indicators) and were designed to address only developing countries-related issues. Whereas sustainable development goals address global issues and require collective work to obtain sustainability in social, economic, and environmental dimension. These are fundamentally the main differences that set the SDGs apart from the MDGs (United Nations 2015; Sachs 2012).

Green sukuk Structure and Its Contributions to SDGs

The Green *sukuk* as discussed earlier is an environmentally friendly Shar-i'ah compliant *sukuk*. Their features embody moral, ethical, social, and economic dimensions, in addition to the values of inclusive participation, risk sharing, and ownership of assets (asset backed/based). They are also free from interest, uncertainty, and speculation. Some of the objectives embodied in the structure of Green *sukuk* have commonality with the sustainable development goals. This facilitates for Green *sukuk* to become a great contributor to the SDGs (Ebrahim 2019). Hence, as Shiller (2012) mentions in his Finance and the Good Society' book 'The better aligned a society's financial institutions [including the instruments] are with its goals and ideals, the stronger and more successful the society will be.' Some of the shared objectives between Green *sukuk* and SDGs include risk-sharing, focus on equity, absence of speculation, and presence of tangible physical assets.

The risk sharing aspect in the Green *sukuk* (especially in asset-backed) structure is useful toward attaining the SDGs in the sense that the issuer does not bear the liabilities and losses all alone, rather they are shared with other involved parties (Ebrahim 2019; Wilson 2008). This aspect corresponds to the SDG 8, 'Decent work and economic growth,' and also SDGs 10 and 17 related to 'Partnership' and 'Reduced Inequalities,' respectively (United Nations 2015). Needless to say, risk transfer is one

the features of the conventional finance, which evidently is one of the root problems to unfair income and wealth disparities.

Another aspect of the Green *sukuk* structure that shares commonality with SDGs is the focus on ‘equity,’ which has relevance to SDGs 9 and 11, ‘Industry, Innovation and Infrastructure and Sustainable Cities and Communities.’ Green *sukuk* and, in fact, all *sukuk* structures have the key feature of the ‘underlying asset,’ that could notably be a piece of land, building, and other movable assets (Dorsman et al. 2016; Ebrahim 2019; Wilson 2008). The underlying asset makes the financing instrument more attractive and an integral part of the real economy, rather than a simple debt-based commercial paper. The assets are generally attained through Murabaha and Ijarah, but often at times through Musharakah, Mudharabah, Salam, Wakalah, and Istisna as well (Bahari et al. 2016; Wilson 2008; Mat Rahim and Mohamad 2018).

In the case of the Murabahah Green *sukuk* project, an Islamic Financial Institution or any other company or sovereign body (willing to issue GS) issues a Murabahah *sukuk* to investors. The originator appoints an SPV as a purchase agent for the Murabahah Green *sukuk* holders, which will provide the amount required for the project—100USD million (cash) for instance. The purchase agent now buys the commodity (a land, solar panels, etc.) on behalf of the GS holders, on spot from the seller. Straightaway the originator signs a purchase agreement from the investors with regard to the commodity, with an amount higher than the purchase price (i.e., will paid 120USD million) on installment basis [This is Tawarruq/Inah sale, a contentious structure]. The Green *sukuk* issuer generates funds through the asset (land, building, solar panels, etc.) and is able to repay the GS holders gradually (Mat Rahim and Mohamad 2018; Wilson 2008). This is a very simple Murabahah Green *sukuk* structure as an example, although in practice, the process is longer and involves many other parties (trustee, rating agency, arranger, brokers, etc.). The Green Building *sukuk* project by PNB Merdeka Ventures Sdn. Bhd mentioned earlier in Table 32.1 (Kamil et al. 2019) is a typical example of a Murabahah Green *sukuk* issuance to finance a green project.

The Ijarah Green *sukuk* project is a bit different from the Murabahah GS, where in the case of Ijarah, the ownership of the asset is not transferred immediately, rather gradually (Dorsman et al. 2016; Wilson 2008). A case of GS based on Ijarah structure is the Bakun Hydroelectric which supplied electricity to the Sarawak state. The project was managed by the Sarawak Energy Berhad company. The company (Sarawak Energy

Table 32.1 PNB Merdeka Ventures Sdn Bhd *sukuk* Highlight

<i>Issuer</i>	<i>PNB Merdeka Ventures Sdn Bhd</i>
Issue Size	RM2 Billion
Issuance date	December 2017
Purpose	The proceeds shall be utilized to partly finance the Merdeka PNB118 tower
Tenor	15 years
Profit rates	Fixed profit rate to be agreed between the issuer and the lead manager(s) prior to each issuance of the Merdeka ASEAN Green SRI <i>sukuk</i>
Payment	Semi-annual basis
Currency	Malaysian ringgit
Lead arranger	MIDF Amanah Investment Bank Bhd
Governing law	Malaysian law
Solicitor	Zul Rafique & Partners
Rating	Unrated
Sharia advisor	MIDF Shari Committee
Structure	Murabahah Tawarruq arrangement and Wakalah

Source Kamil et al. (2019)

Berhad) first issued an ijarah Green *sukuk* to the investors and through an agreement is appointed as agent to purchase the asset. After the transaction, the GS holders own the solar panels and through an Ijarah contract (rent, plus an added markup which signifies the profit), leased them to Sarawak Energy Berhad. The company benefited from the usufruct of the solar panel and generated funds to repay the investors and gradually becomes the full owner of the panels. This Ijarah GS is asset-backed Ijarah contract. Other Ijarah *sukuk* are asset-based Ijarah contract, where the company uses superficial asset, which it does not own, to raise funds to finance a green project. Table 32.2 shows the major differences between asset-based and asset-backed contracts.

From Table 32.2, in the case of ownership for asset based *sukuk*, the beneficial ownership is transferred rather than full ownership, also the risk of default is more significant compared to the asset-backed Ijarah. This risk in case of a default is tied to the credit profile of the issuer, given that the investors have no recourse to the asset. Moreover, asset-based *sukuk* structure includes the feature of the ‘buy back the asset,’ which is considered by some scholars as non-Shari’ah compliant, as it resembles bay’ al Inah. For this reason, the asset-backed Ijarah, according to the

Table 32.2 Asset-based and Asset-backed *sukuk* compared

<i>Criteria</i>	<i>Asset-based</i> <i>sukuk</i>	<i>Asset-backed</i> <i>sukuk</i>
Ownership	Provides beneficial ownership rights to the usufruct of certain physical underlying assets, and relies on the obligor's credit quality to ensure that the <i>sukuk</i> performs	Ownership rights extend to the actual underlying assets such as physical real estate or rights/usufruct from particular intangible but valuable assets
Recourse to Asset/investor	The recourse of the investor is to the creditworthiness of the ultimate obligor	Recourse of the investor is to the underlying asset and the <i>sukuk</i> investors bear any losses in case of impairment of the <i>sukuk</i>
Rating	Corporate rating methodology is used for asset-based transaction of <i>sukuk</i> whenever a corporate obligor is the key driver affecting credit risk of <i>sukuk</i>	Asset-backed rating methodology will be used for the asset-backed <i>sukuk</i> transaction, which involves securitization. Here, credit risk is determined solely by the performance or the underlying asset

Source Adapted from Muhamed and Radzi (2011)

majority of scholars, is much preferred since the actual reason behind the issuance is to acquire the asset (Muhamed and Radzi 2011; Wilson 2008).

The Musharakah *sukuk* is less frequently used in Green *sukuk* but at the same time constitutes a very sophisticated and innovative feature for financing green projects. Nevertheless, the Musharakah GS would not involve the same Shari'ah issues as the Ijarah asset based, unless its structure is also asset based. Otherwise, in such structure the risk would be shared and the transaction would involve a tangible and fund generating asset which would encourage the green project financing as it is profitable, and at the same time preserving the environment (Wilson 2008).

Besides the risk sharing and equity focus, there are other unique features of the Green *sukuk* structure, which contribute to SDGs. These features are the absence of speculation and the presence of tangible physical assets. Green *sukuk*, and indeed other *sukuk* structures as well, should not be used for speculation. They are securities for investment of long-term periods to fund climate change mitigation and adjustment projects. The investors comprise socially conscious individuals rather than quick

income or revenue chasers (Dorsman et al. 2016). Furthermore, the presence of a tangible asset makes the Green *sukuk* market much more stable and resilient to recessions and crises compared to debt markets (Ahmad and Radzi 2011). Green *sukuk* includes securement of future income cash flows, socially driven projects that minimize economic impact on the environment. These unique features of GS harness their objectives to the shared interest and mission of the sustainable development goals.

IDENTIFYING AND ANALYZING THE ISSUES

In spite of the great structure of the Green *sukuk*, at least in theory, and the immense innovation and services they offer, there are numerous issues that cannot be overlooked and need to be addressed. In the same vein, the SDGs also are not exempted as they too have some criticism despite the ambitious and global agenda they promote. Both GS and SDGs share a great deal of principles and goals, yet they have their fair share of drawbacks. As for the sustainable development goals, one of their shortcomings is that they are legally non-binding goals, making them vulnerable of dismissal and setbacks. In addition to the non-binding issue, lack of awareness in some places creates hardships against the accomplishment of the SDGs (United Nations General Assembly 2015; Sachs 2012). Moreover, according to (Carant 2017) SDGs address problems without deeply examining the real causes, hence the proposed goals appear to a lot of people, as well-structured facade to calm critics and allow the prevailing world order to persist. Ignoring the underlying causes, for example inequalities borne by the current financial system, in addition to the global decision making being exclusive, thus shows lack of presenting serious reforms embedded in the goals, and pictures the SDGs as unrealistic as its predecessor, the MDGs. Another concern related to SDGs is the data collection. Millions of people are involved in reaching out to achieve 17 goals, 169 targets, and 230 indicators altogether. Unfortunately, again, the data focus on the problems and their interconnection and not exactly the cause (United Nations 2015).

With regard to GS, the issues include the structure, Shari'ah compliance, transparency, pricing model, and reputational risk. The structure of the Green *sukuk* is no different from the structure of the regular *sukuk*, which makes the so-called 'Green *sukuk* structure' a misnomer. The structure remains the same. The only difference is the kind and nature of projects Green *sukuk* funds, which are environmentally friendly projects.

Furthermore, the Green *sukuk* issuance is profit oriented and the social orientation is not embedded in the structure.

According to (Bahari et al. 2016; Dorsman et al. 2016; Usmani 2008), the most revealing issue with *sukuk* in general [including Green *sukuk*] is Shari'ah compliance. One of the critical issues, as already mentioned, is the 'sell-buyback' feature, which also represents the key feature of the controversial 'sale of Inah.' It poses a serious Shari'ah issue to the extent that most Islamic scholars consider any Inah-based structure as impermissible. The controversy of the sale of Inah also includes a moral dimension, where the real intention of the transaction is not to acquire asset or commodity, rather it is to engage in loan transaction disguised as deferred sale with 'profit'—the surplus above the loan. Some scholars argue that the sale of Inah (as well as Tawarruq) is innovative back doors to interest, and therefore immoral and impermissible. Accordingly, the Ijarah asset based and Musharakah *sukuk* that are structured using the sell-buyback feature could actually lose their potentials. Another Shari'ah issue (Bahari et al. 2016; Usmani 2008) is the fixed cash flows (other than ijarah and Murabahah) and the guaranteed revenue. These Shari'ah issues, as (Dorsman et al. 2016; Usmani 2008) argue, result from a poor regulations and incompetent Shari'ah advisory.

Moreover, according to Wahida Ahmad and Rafisah Mat Radzi (2011), these issues originate from a conventional banking and finance rules, regulations and setting, upon which Islamic finance operates. Apart from the Shari'ah issues, the Green *sukuk* market according to Bahari et al. (2016) lacks transparency, while Dorsman et al. (2016) reproach it (GS as a derivative to *sukuk*) of using unfavorable *sukuk* pricing models. Naturally, this leads to mistrust of investors and the decrease of Green *sukuk* demands in comparison with the Green bonds. Furthermore, the structure of the Green *sukuk* (*sukuk* in general as well) suffers from reputational risk. The structures remain inconsistent, and their flexibility which varies with the conventional finance structures lead to the mistrust of the vast majority of people and project a negative image of what was supposed to be a well-intended financing product.

CONCLUSION AND THE WAY FORWARD

Green *sukuk* ideally has a lot of advantages. They are directed toward environmentally friendly investments. Their structure is based on tangible physical assets [rather than debt-based commercial papers], which have direct link to the real economy. GS promotes risk sharing as opposed to

risk transfer. Such arrangements make them, obviously attractive tradable capital market product. The risk sharing aspect addresses the problem of income and wealth disparity in the society in addition to the environmental concern. Furthermore, the risk sharing aspect of Green *sukuk* promotes financial inclusion. The features of GS relate to SDGs as follows: 13th goal: climate action, 11th goal: sustainable cities and communities, 8th goal: decent work and economic growth, 17th goal: partnership for the goals, 15th goal: life on land, 10th goal; reduced inequalities, 9th goal; Industry, Innovation and Infrastructure and 7th goal; affordable and clean energy.

Despite their merits, both GS and SDGs have some drawbacks. The GS offers plausible investing answers, but if not improved and gone through strict Shari'ah regulations, it will die out because of strong competitive advantages of its counterpart, the Green Bonds. As for the sustainable development goals, the framework must promote serious reforms, to assure the participation and the involvement of everyone, otherwise, yet again, it will just represent an ambitious attitude of the United Nations. Improvements could include examining underlying causes of the challenges, and managing data, among others.

Therefore, the Green *sukuk* embodies the Islamic Finance moral philosophy of elevating the standard living and the creation of prosperous and harmonious environment for societies. Sustainable development goals also upheld the responsibility of strong commitment to eradicate inequalities, poverty, and hunger around the world. The novelty of this chapter, therefore, lies in charting a new direction of GS–SDGs relationship.

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