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Integrating Green Sukuk and Cash Waqf Linked Sukuk, the Blended Islamic Finance of Fiscal Instruments in Indonesia: A Proposed Model for Fighting Climate Change

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Abstract

Indonesia is the world's first global and retail sovereign Green Sukuk issuer. In four years since its first issuance in 2018, Green Sukuk has been issued seven times to finance or refinance the projects or programs of Eligible Green Sectors. Then, in order to support the development of social investment and productive waaf, the Government of Indonesia (GoI) also issues Cash Waaf Linked Sukuk (CWLS) by blending Islamic finance and impact investing for the Sustainable Development Goals (SDGs). CWLS is the first blended Islamic finance for the fiscal instrument in Indonesia, which integrates Islamic commercial finance and Islamic social finance. In order to tackle climate change, this study promotes the integration between Green Sukuk and CWLS as well as adopting the Esham concept toward Perpetual Green CWLS as a new green financing alternative. This collaboration can be an innovative one in the future as a fiscal funding source to fight climate change which today becomes the development agenda priority in line with the intensified intention of extraordinary weather. Climate change has brought a high-cost impact on vulnerable and low-income people. Along with efforts to achieve the SDGs and Paris Agreement targets, a financing gap holds up the route to tackling climate change. Therefore, by using a literature study on the best practice of Green Sukuk and CWLS in publications mainly sourced from the Ministry of Finance (MoF) Republic of Indonesia, this conceptual paper focuses on three issues, namely: (1) describing Indonesia's sovereign Green Sukuk; (2) describing the CWLS; (3) explaining a proposed Perpetual Green CWLS as an Islamic green financing alternative.

Keywords: CWLS, esham, green financing, green sukuk, perpetual sukuk, perpetual green CWLS

INTRODUCTION

Indonesia is the world's first global and retail sovereign Green Sukuk issuer. The issuance of Green Sukuk is intended to finance or refinance the projects or programs of Eligible Green Sectors. The Ministry of Finance of the Republic of Indonesia [MoF] (2020a, 2021), MoF & United Nations Development Programme [UNDP] (2018), and Musari (2021) claimed that Indonesia's commitment to combating climate change by participating in a low carbon and climate-resilient movement is demonstrated by the issue of Green Sukuk. Indonesia adopted the Paris Agreement in 2016 and submitted its Nationally Determined Contributions as a member of the responsible and committed international community (NDCs).

Then, the Government of Indonesia (GoI) also issues Cash *Waqf* Linked Sukuk (CWLS) by fusing Islamic finance with impact investing for the Sustainable Development Goals (SDGs) in order to encourage the growth of social investment and productive *waqf* (SDGs). CWLS is Indonesia's first blended Islamic financial product that combines Islamic social and commercial financing. Indonesia has the chance to play a significant role in developing this blended Islamic finance because it has the largest Muslim population and the most Islamic financial institutions worldwide. MoF (2020b), the Directorate General of Budget

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Financing and Risk Management [DJPPR] (2020a), Pridityo (2020), and Hadiningdyah (2020a, 2020b) denoted that CWLS is exactly the cash *waqf* placed on a sovereign sukuk to be organized productively.

In line with the issue of the financing gap in an effort to achieve the SDGs, as the United Nations, The Economic and Social Commission for Asia and the Pacific [UN ESCAP] (2014, 2019), Yu (2016), MoF & UNDP Indonesia (2018), Musari & Sayah (2021), and Musari & Hidayat (2021) mentioned, a financing gap also stands in the way of fighting climate change. Stewart & Mok (2022) have mentioned that the majority of nations are currently searching for creative financial solutions to deal with the triple dilemma of extraordinary climate change, natural loss, and debt levels. Currently, the largest asset class in the portfolios of many institutional investors is sovereign bonds. They reflect almost 40% of the \$100 trillion global bond market. Sustainability-linked bonds (SLBs), which are currently being investigated by sovereign issuers and are rapidly emerging in the corporate debt market, are one instrument for connecting environmental and national climate commitments with sustainable sovereign financing.

Moghul and Safar-Aly (2014) addressed the fact that many leading environmentalists adduce the potency of religious roles or at least philosophical approaches referring to religion to face the environmental crisis in order to combat climate change. In *Shari'a*, it comprises a settled ethical framework for caring for the environment and its various occupants. Likewise, Alam, Duygun, & Ariss (2016) also cited that the main goal behind the development of Green Sukuk is to maintain the *Shari'a's* existence while preserving the environment. Therefore, the allocation and impact of Green Sukuk must be the manifestation of *maqasid al-shari'a*.

RESEARCH METHOD

This study is qualitative research with an explanation approach to discovering the new relationship between Green Sukuk and CWLS as a phenomenon. No doubt, climate change today becomes a development agenda priority in line with the intensified intention of extraordinary weather so as to bring a high-cost impact on vulnerable and low-income people. Ahead of work to achieve the Paris Agreement and SDG targets, a financing gap holds up the route to tackling climate change. This study promotes the integration between Green Sukuk and CWLS as well as adopting the *Esham* concept toward Perpetual Green CWLS as a new green financing alternative. The collaboration of these three instruments can be innovative as a fiscal funding source to fight climate change.

By using a literature study on the best practices of Green Sukuk and CWLS on publications mainly sourced from MoF, coupled with the argument for presenting the concept of *Esham* theoretically, this research can also be categorized as a Conceptual Paper with Models research design as a methodological approach. Referring to Jaakkola (2020), by excepting literature reviews and meta-analyses, four methodological approaches can be used in providing structured arguments and their development in the conceptual paper: theory synthesis, theory adaptation, typology, and models. By focusing on proposing a new relationship or construct, "Perpetual Green CWLS," as a new insight and then developing a logical argument about this association rather than testing it empirically, the objective of this study is indeed to develop the rationality of the proposed models. As Meredith (1993) and MacInnis (2011) explained, "Models of Research Design" in Conceptual Paper offers a significant improvement in building valid theories in their field of science. This method naturally leads to the synthesis of previous research, which serves as an external validity check of research findings. This is critical to the strength of academic fields, whether it is manifest in purely conceptual papers or in conceptual-empirical blends.

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In line with Xin, Tribe, & Chambers (2013), who stated that there was a dearth of research on conceptual research, Green (2014) also criticized the fact that "conceptual framework" is a term that is regularly used in research but rarely explained. Casanave & Li (2015) mentioned that the goal of conceptual research is to see beyond the concrete data to higher levels of abstraction. According to Cornelissen (2017), in order to build a theoretical framework that predicts relationships between concepts in conceptual papers, there are three common styles of theorizing their basic forms and typical problems: proposition-based style, narrative-based style, and typology-based style. In building concepts and theories, this study is closer to the narrative-based style. Narrative-based style is the specification of a process model that lays out a set of mechanisms explaining events and outcomes. Likewise, this study focuses on three issues, namely: (1) explaining Indonesia's Green Sukuk; (2) explaining the CWLS; and (3) explaining a proposed Perpetual Green CWLS as an Islamic green financing alternative.

RESULTS AND DISCUSSION

Indonesia's Sovereign Green Sukuk

Using the Republic of Indonesia (RoI) Green Bond/Sukuk Framework, MoF (2019, 2020a, and 2021), MoF & UNDP (2018), and Musari (2021) mentioned that the GoI integrates climate change issues into planning and budgeting systems and establishes a budget tagging mechanism to run concurrently with the national budget to account for the climate change impacts. Then, the Green Sukuk fund will be distributed strictly according to Eligible Green Sectors to finance or refinance the projects and programs. According to the Framework, there are nine eligible green industries: renewable energy, sustainable management of natural resources, energy efficiency, green tourism, resilience to climate change for highly vulnerable areas and industries, disaster risk reduction, green buildings, sustainable transportation, sustainable agriculture, waste to energy, and waste management.

MoF (2019, 2020a, and 2021), MoF & UNDP (2018), and Musari (2021) highlighted that Eligible Green Sectors refer to projects or programs that encourage the growth of climate-resilient communities and the transition to a low-emission economy, including biodiversity, climate mitigation, and adaptation, in concert with the criteria and processes outlined in the Framework. Moreover, the following will not be included in the list of "Eligible Green Sectors": (1) New fossil fuel-based electric power generation capacity; (2) large-scale hydropower plants (> 30-megawatt capacity); (3) nuclear and nuclear-related assets; and (4) expenditures related to improving the efficiency of fossil fuel-based electric power generation.

In Sovereign Green Sukuk issuance, Perusahaan Penerbit SBSN Indonesia (PPSI) III, a subsidiary company that is formed to undertake a specific business purpose or activity, becomes a special purpose vehicle (SPV). As a legal entity founded by the GoI, one of PPSI III's tasks is issuing sukuk in the form of foreign currencies in the global markets. DJPPR (2018, 2019a, and 2019b), the first sovereign green offering in USD in either sukuk or conventional forms, was made with the announced issuance of the first Global Green Sukuk in March 2018. Then, as a sign of commitment to the Paris Agreement, the GoI issued the second Global Green Sukuk in February 2019 to maintain Indonesia's commitment, leadership, and contribution to the international community concerning climate change funding. Additionally, the first Retail Green Sukuk in the world was released in November 2019.

According to MoF (2019, 2020a), each Global Green Sukuk issuance was designed with a 49 percent new project finance component and a 51 percent current project refinancing component. The underlying assets for each issuance were divided into the following categories: (1) Project assets that are being built

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or will be built (49 percent); (2) state-owned assets, which include land and buildings (51 percent). Table 1 provides an overview of Indonesia's Sovereign Green Sukuk for the years 2018 through 2021, comprising Global Green Sukuk and Retail Green Sukuk.

Table 1. The Summary of Indonesia's Sovereign Global and Retail Green Sukuk

| Year | 2018 | 2019 | | 2020 | | 2021 | |
|----------------------------------|--|---|-----------------------------------|--|-----------------------------------|--|-----------------------------------|
| Issuance Time | March | June | November | June | November | June | November |
| Series of Green Sukuk | Global USD Wakala Trust Certificate | Global USD Wakala Trust Certificate | Retail ST006 | Global USD Wakala Trust Certificate | Retail ST007 | Global USD Wakala Trust Certificate | Retail ST008 |
| Total Amount | USD1.25 billion | USD0.754 billion | IDR1,459.88 billion | USD0.750 billion | IDR5,421.26 billion | USD750 million | IDR5,000 billion |
| Total/ Origin of Investors | Islamic Malaysia, and Middle East investors (32%), Indonesia (10%), Asia, excluded Indonesia (25%), US (18%), and Europe (15%) | Islamic Malaysia, and Middle East investors (29%), US (23%), Europe (22%) | 7,735 Investors | 32% to Islamic and Middle East investors (32%), Indonesia (5%), Asia, excluded Indonesia (40%), US (12%), and Europe (11%) | 16,992 Investors | Islamic and Middle East investors (8%), Indonesia (6%), Asia, excluded Indonesia, Malaysia, and Brunei (34%), US (27%), and Europe (25%) | 14,337 Investors |
| Yield | 3.75% | 3.9% | 6.75% (Floating with Floor) | 2.3% | 5.50% (Floating with Floor) | 3.55% | 4.80% (Floating with Floor) |
| Tenor | 5 Years | 5.5 Years | 2 Years | 5 Years | 2 Years | 30 Years | 2 Years |

Source: MoF (2019, 2020a, and 2021), DJPPR (2019a, 2019b, 2020b, 2020d, 2021b, and 2021d), processed by Author

Until the end of 2021, GoI has issued Green Sukuk seven times to finance or refinance the projects or programs of Eligible Green Sectors. In 2021, there were several changes in the issuance of Green Sukuk. In the Global Green Sukuk, the GoI introduced the Green Sukuk format on a 30-year tenor for the first time, which was also the first in the world. This issuance was expected to be evidence of Indonesia's long-term commitment to green and sustainable finance, as well as pioneering financing methods in the fight against climate change. DJPPR (2021b) reported that Global Green Sukuk, with a *wakalah* contract with a 30-year tenor, had obtained sharia opinion from the National Sharia Board - Indonesian Council of Ulama (DSN-MUI), HSBC's Global Sharia Supervisory Committee, Citi Islamic Investment Bank E.C.'s Shari'a Advisory Board, the Global Sharia Supervisory Committee of Standard Chartered Bank, and the Fatwa and Sharia Supervisory Board of Dubai Islamic Bank PJSC. This transaction demonstrates the GoI's commitment to growing and enhancing the liquidity of the sukuk market in the Asian region, as well as the state budget financing strategy.

Then, in the issuance of Retail Green Sukuk ST008, DJPPR (2021d) reported that this serial has been developed and expanded into the SDGs Government Securities Framework, which incorporates additional aspects of the SDGs into the framework to cover not only sectors or projects that contribute to climate change mitigation and adaptation efforts (green focus), but also the progress of the blue economy (blue focus) and positive social outcomes (social focus). Previously, Global and Retail Green Sukuk was referred to as the RoI Green Bond or Sukuk Framework. The SDG Government Securities Framework has received a Second Party Opinion (SPO) from the Centre for International Climate Research (CICERO) and the International Institute for Sustainable Development (IISD) to ensure that the framework is in accordance with globally recognized principles and standards.

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Cash Waqf Linked Sukuk (CWLS) in Indonesia

In dealing with the economic impact of the COVID-19 pandemic, Pridityo (2020), Ascarya (2020, 2021), Bashori (2020), Juwaini (2020), and Hassan, Muneeza, & Sarea (2021) highlighted that the Islamic social finance sector, which includes *zakat*, *infaq*, *sadaqah*, and *waqf*, is one of the cornerstones of supporting the provision of social safety nets for affected communities, provides a helping hand to those in need without incurring debt, plays an active role in economic recovery, especially for micro-small enterprises (MSEs), and can help the government recover from the crisis.

When Islamic social finance is integrated with Islamic commercial finance, Ascarya (2020) mentioned that this sector has great potential to play an important role in achieving economic development, social, and environmental goals, including the SDGs. Musari (2021) wrote that *waqf* and sukuk are phenomenal Islamic financial instruments. Each of them has evolved toward two types of instruments: sukuk linked *waqf* (SLW) and *waqf* linked sukuk (WLS). They are currently the new blend of Islamic finance for modern *waqf* instruments.

Musari (2021) explained that SLW was initially developed in Indonesia. SLW used *waqf* assets as the underlying; then, the collected funds were used to construct productive projects on the *waqf* assets. The GoI has problems implementing this model. To deal with the infirmity of SLW, WLS was later developed into CWLS. CWLS was launched by the GoI at the Annual Meetings of the International Monetary Fund (IMF) and World Bank in Nusa Dua, Bali, October 12-14, 2018. Then, on November 1, 2018, a memorandum of understanding (MoU) was signed for the development of CWLS between the Ministry of Finance (MoF), the Indonesian *Waqf* Board (BWI), the Central Bank of Indonesia (BI), and the Ministry of Religious Affairs (MoRA). CWLS is guaranteed by the Government Islamic Securities (SBSN) Act and the State Budget (APBN) Act.

MoF (2020b), DPS (2020a), Pridityo (2020), Hadiningdyah (2020a), and Musari (2021) noted that CWLS was issued for the first time in March 2020 with a value of IDR 50.8 billion with series SW001. The placement of cash waqf funds is carried out by the Indonesian Waqf Agency (BWI) through the private placement method in its position as nazhir (waqf manager). BWI will pay the discount once up front and utilize it for renovations and the procurement of medical equipment to help build a retina center at Wakaf Achmad Wardi Hospital in Serang, Banten Province. The coupons, which are paid for each month, are used to buy ambulances and provide free cataract surgery to the underprivileged at Achmad Wardi Hospital (the goal is to assist 2,513 underprivileged patients over five years). At the SW001 maturity date, the waqf sukuk monies will be fully returned to the waqif.

SWR002 Description SW001 **SWR001** SWR003* Issuance Time March 2020 November 2020 **June 2021** July 2022 Nominal of Issuance IDR50.849 billion IDR14.912 billion IDR24.141 billion n.a Trading Terms Non-tradable Non-tradable Non-tradable Non-tradable Structure Wakala Wakala Wakala Wakala Yield 5.57% p.a. 5.05% p.a 6.15% 5.5% p.a 5.00% Coupon Rates p.a 5.5% 5.57% n.a 2 Years 2 Years Tenor 5 Years 2 Years Number of Wagif 1,041 591 n.a Offering Method Private placement Book building Book building Book building

Table 2. The Terms and Conditions of the CWLSSW and SWR Series

Source: DJPPR (2020a, 2020c, 2021a, 2021c, 2022), processed by Author

^{*} The offering period lasts from April 11 to July 7, 2022.

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Although MoF took almost two years to issue the first CWLS despite its launch in 2018, Musari (2022) confirmed that MoF remains committed to addressing CWLS as a productive *waqf* engine in Indonesia. The issuance of the CWLS is a form of the GoI's commitment to supporting the development of social investment and productive *waqf*. CWLS is a vehicle for *waqf* investment as well as a means of funding SDG achievement. Table 2 shows the terms and conditions of the CWLS series from its first issuance until the end of 2021.

Figure 1 provides a general illustration of the CWLS mechanism (via book creation). Waqif invests the waqf fund in one of two ways: either permanently in a cash waqf or temporarily in a cash waqf, through nazhir partners or a Sharia Financial Recipient Institution (LKS-PWU). The LKS-PWU next provides the waqif with a Cash Waqf Certificate (SWU) and Waqf Pledge Deed (AIW). LKS-PWU has finished buying Retail CWLS from MoF. At the time of initial placement, MoF releases Retail CWLS with serial number SWR and pays the discount to LKS-PWU. The coupons are then periodically paid to LKS-PWU each month by MoF. LKS-PWU continues to give the nazhir coupons and discounts. The principal waqf fund redemption is returned to LKS-PWU by the MoF at the maturity date. Then, LKS-PWU continues to give the money to the permanent cash waqf (Nazhir) or waqif in full (temporary cash waqf). For social initiatives and projects—not for government projects or programs—Nazhir offers discounts and coupons. Nazhir has two options with regard to the main waqf fund: reinvest it in retail CWLS or distribute it to social programs and projects (not government programs and projects). Prior to now, nazhir and LKS-PWU entered into a partnership agreement to manage the cash waqf funds. Additionally, by using the Waqf Core Principles in funding and allocating, BWI, as the waqf regulator, is obligated to assure the openness and governance of waqf fund management by nazhir and LKS-PWU (WCP).

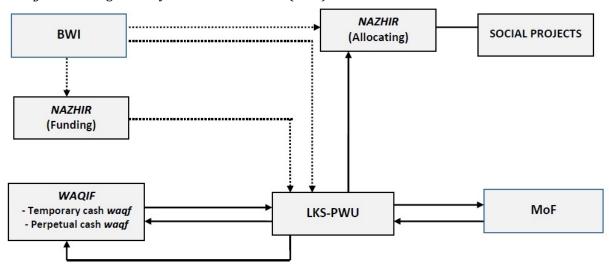


Figure 1. CWLS Mechanism (through Bookbuilding)

Source: Developed by the Author

Overall, referring to DPS (2020a, 2020c, 2021a, and 2021c), MoF (2020b), and Hadiningdyah (2020a, 2020b), from 2018 to 2021, the total amount received by CWLS was IDR89.902 billion. These three series support social projects such as: creating new *waqf* assets through renovations and medical equipment purchases, as well as assisting in the construction of a retina center; providing free cataract surgery for the underprivileged; purchasing medical equipment; procuring ambulances and mobile health clinics; constructing clinics at Islamic boarding schools and assisting teachers; funding the education of underprivileged or orphaned students; providing scholarships; empowering the agricultural economy;

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constructing low-cost housing; funding, training, and supporting MSMEs, such as cattle and other livestock breeders; as well as rice barn *waqf*.

Perpetual Green CWLS, A Proposed Model

Only a few Islamic economics scholars are aware of the criticism of the integration of sukuk and waqf in a single structure. Musari (2021) noted that the criticism could be found in papers such as "Merging Waqf and Sukuk," "Can There Be Innovation in Islamic Finance? Case Study: Esham," "Modernizing a Historical Instrument (Esham) for Growth and Financial Inclusion," and "Proposal for Innovation in the Capital Markets, Esham." Çizakça (2013a, 2013b, 2014a, 2014b, 2016, 2018, and 2021) recommends esham as a more appropriate instrument to combine with waqf. With nearly half a century of academic work in comparative economic history and Islamic finance under his belt, Çizakça's point of view cannot be ignored. As the origin of sukukand probably the first securitization in the Islamic world that facilitated government borrowing from the public without interest, Çizakça (2013b, 2018) confirmed that esham, which was invented by the Ottoman government, could be modernized so that it could drive sustainable economic growth and financial inclusion.

Although *esham* is dissimilar to sukuk, Çizakça (2014b) mentioned that *esham* practice is closer to a perpetual sukuk in modern language. Musari (2022) highlighted that Islamic financial engineering should develop an instrument that does not only meet Sharia principles but is also able to help the state finance system meet fiscal needs. However, the instrument must also not create new debt that burdens the state. Public involvement in financing economic development and other fiscal needs is a logical option. However, the established instrument must not only please the market or investors but must also help the state by not making it a burden for inheritance in the future. Today, from the Islamic finance perspective, Green Sukuk is a better and more dignified financing instrument as an option than bonds or seeking foreign debt to fight climate change. In addition to complying with sharia principles, Green Sukuk contains elements of cooperation and investment.

Therefore, this paper proposes Perpetual Green CWLS as an Islamic green financing alternative. This scheme is the development of several schemes previously developed by Musari (2021, 2022) and Musari & Sayah (2021). By integrating Green Sukuk, CWLS, and Esham principles, Perpetual Green CWLS is expected to improve the weaknesses that exist in the instrument that formed it. This scheme can also be adapted to finance or refinance environmental conservation projects or programs, solar power plants, natural disaster mitigation, and recovery projects or programs through Green Sukuk, Blue Sukuk, White Sukuk, or Catastrophe Sukuk. As Çizakça (2018) mentioned, "perpetual" ownership may solve the problem by allowing the waqf not to redeem the shares purchased. Investors would be rewarded by the payment of annuities in perpetuity, while the waqf would maintain its capital and could also function in perpetuity.

The flow of Perpetual Green CWLS can be explained in Figure 2. Retail waqif invests Perpetual Green CWLS in Selling Agent or Islamic Banks. The Selling Agent or Islamic Banks then submits the SWU after completing the purchase of Perpetual Green CWLS for the government (MoF) and the AIW to the waqif. At the time of initial placement, the Selling Agent/Islamic Banks split the discount from the Perpetual Green CWLS that the government (MoF) issues with a special serial number. To continue financing or refinancing the social green initiatives and programs, the selling agent and Islamic banks continue to give nazhir a discount. Through state-owned enterprises or the State Investment Agency, the government (MoF) uses this money as green working capital or green investment.

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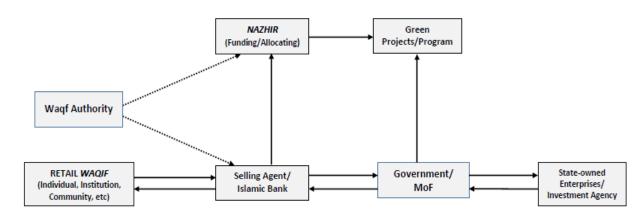


Figure 2. Perpetual Green CWLS

Source: Developed by the Author

Furthermore, the green productive projects or programs of the state-owned enterprises and State Investment Agency become underlying assets at once to pay profit and loss sharing to the government (MoF) periodically. The profit and loss sharing is then periodically distributed to the Selling Agent/Islamic Banks by the government (MoF). The Selling Agent/Islamic Banks continue to pay a predetmined proportion of profit and loss sharing to nazhir in order to finance or refinance the social green projects, programs, and *waqif*. Nazhir contributes to social green projects or programs (rather than government's) by sharing profits and losses. In the Perpetual Green CWLS, there is no maturity date. The maturity date can occur if the government (MoF) intends to stop this mechanism by redeeming the *waqif*'s principal funds. According to the WCP, the waqf authority is responsible for ensuring the transparency and governance of waqf fund management by nazhir, as well as the involvement of selling agents and Islamic banks in funding and allocating waqf funds.

CONCLUSION

As the world's first global and retail sovereign Green Sukuk issuer, Indonesia can be an exemplar for finding new green financing to fight climate change. The Green Sukuk initiative in Indonesia has paved the way for sustainable financing through Islamic green financing. Then, as the first blended Islamic finance fiscal instrument in Indonesia, CWLS can be a lesson in finding innovative instruments to finance various social projects and programs. The CWLS initiative in Indonesia has paved the way for the development of social investment and productive *waqf* by integrating Islamic commercial and social finance, as well as impact investing for the SDGs.

However, both Green Sukuk and CWLS have weaknesses, namely the existence of redemption, which requires the state to return the principal funds at maturity. Thus, by adopting the *Esham* concept within the integration between Green Sukuk and CWLS, Perpetual Green CWLS is intended to be a new Islamic green financing alternative. As a socially responsible investment instrument, this scheme can be adopted and developed as an innovative sustainable financing model in the future as a fiscal funding source to fight climate change. Public engagement to tackle climate change is a logical option. For this reason, Islamic public and domestic borrowing instruments must receive attention. Green Sukuk and CWLS need to be continually developed in order to provide several schemes so that the public, with its various characteristics, can choose and participate in green economy programs, including addressing climate change. The Perpetual Green CWLS is one of the alternative schemes that can be explored. The presence of *Esham* in developing Islamic financial engineering for public and domestic borrowing through

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Perpetual Green CWLS is intended for this scheme not only to fulfill sharia principles but also to help the state finance its fiscal needs. In addition, this scheme is intended not to create new debt for the state.

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