Islamic Finance & Renewable Energy

Greenpeace MENA

UMMAH FOR EARTH
PROTECT TO PROGRESS

Islamic Finance for Earth
INVESTING IN A GREEN FUTURE

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GEFI

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About Greenpeace MENA and Ummah for Earth

Greenpeace Middle East and North Africa (MENA) is an environmental organisation established in 2018 to protect the environment and address the impacts of climate change in the region, aiming to provide safer and healthier lives for local communities. The Middle East and North Africa region is our home and we work as an organisation within a creative collaborative approach to minimise the environmental, economic and social impacts induced by the global climate crisis. We encourage innovative local solutions to enable our communities to thrive and to live in harmony with the environment that encompasses them. We look forward to working with local organisations, decision-makers, supporters, the media and all those interested in serving our region and preserving and protecting its environment.

About Greenpeace MENA and Umma for Earth

Disclaimer

Ummah for Earth is a faith-based climate alliance that was created in 2020. We have been focusing on empowering communities and local environmental initiatives, shedding light on the intersection between Islamic faith and climate action, and encouraging and helping Muslims and youth to raise their voices for the well-being of our common home. We are now more than 40 allies that have diverse backgrounds and expertise including religious, environmental, and developmental. The alliance members have come together based on their strong knowledge of Islam, and/or environmentalism. Ummah for Earth's work is based on understanding the connections between faith, people, values and nature. We believe in the Islamic teachings about protecting the environment and caring for the most vulnerable. We inspire our environmental work from three main Islamic principles: Stewardship (الخلافة), Balance (الميزان), and Wisdom (الحكمة). God has entrusted us to be stewards on this Earth, to act responsibly to maintain its balance and to take wise decisions today to preserve the environment for future generations. Greenpeace MENA, Greenpeace Indonesia, Greenpeace Malaysia and Greenpeace Canada are part of the Ummah For Earth Alliance.

The Global Ethical Finance Initiative (GEFI): The world depends on global finance making the right choices to deliver positive change and achieve the UN's Sustainable Development Goals. The Global Ethical Finance Initiative (GEFI) has become the hub at the centre of the ethical finance movement, and the partner for action on ethical finance.

Executive Summary

This report examines the profound connection between Islamic finance and renewable energy, providing a comprehensive analysis of how Shariah-compliant financial instruments can drive the global transition to sustainable energy and be part of the climate crisis solution. With a significant shortfall in climate financing worldwide, Islamic finance is positioned to play a crucial role in closing the gap, especially in Muslim-majority nations and emerging markets.

The mobilisation of Islamic finance for renewable energy not only yields significant benefits for Muslim countries but also contributes to global sustainability efforts to tackle the climate crisis. Islamic finance has the capacity to set a precedent for other ethical finance models and catalyse international collaboration in renewable energy initiatives. Furthermore, the report underscores the need for Islamic financial institutions to acknowledge the considerable investment potential within the renewable energy sector, which not only promises competitive financial returns but also generates positive social and environmental outcomes.

A central theme of the report is the inherent compatibility between Islamic finance and the principles of sustainability. It highlights how renewable energy investment aligns with Islamic guidelines, promoting environmental conservation, social justice, and responsible stewardship of natural resources. With these principles grounded in the Quran and the Hadith, renewable energy stands as an optimal avenue for Sharia-compliant investments.

Islamic financial institutions are able to deploy into the global energy sector using shariah compliant instruments. The report provides both an overview of global renewable energy capacity and production and highlights select Islamic finance markets with a particular emphasis on the Middle East and North Africa (MENA) region as a pivotal force in the global energy transition. By strategically integrating Islamic finance into their sustainability agendas, MENA countries are not only leveraging existing Islamic financial instruments but also pioneering innovative financing solutions to achieve their ambitious climate targets by widening the pool of capital.

According to London Stock Exchange Group's Islamic finance development report, Islamic finance is expected to continue to grow, with assets forecasted to reach US$6.7 trillion by 2027[1] representing a significant and largely untapped opportunity to allocate capital towards renewable energy initiatives. This growth is driven by an increasing global acknowledgement of the critical importance of ethical finance. Additionally, the green Sukuk market exhibited exceptional growth in recent years, as examined in the report. In the first half of 2024 alone, Green Sukuk issuances reached $9.9 billion, equivalent to the 2023 full-year total.[2] By strategically allocating approximately 5% of Islamic finance assets toward renewable energy and energy efficiency by 2030, an estimated $400bn could be unlocked for climate finance.

Executive Summary

The report includes comparative applications of Islamic finance in the form of green Sukuk financing renewable energy and energy efficiency projects. Examining their socio-economic impacts which include job creation, technological innovation, and enhanced energy security. Two case studies are presented; the first case study highlights the role of private Islamic finance through the Saudi Electricity Company, the first utility company to issue a green Sukuk in the Middle East. The second case study illustrates the public sector's impact via the Indonesian Government, which is notable for being the issuer of the first and largest sovereign green Sukuk. These case studies present the synergies and differences across jurisdictions along with the varying scales of projects funded and their contribution towards achieving the SDGs. Key lessons are identified for readers who are considering replicating similar initiatives.

The report asserts that transformative progress in Islamic sustainable finance can only be realised through the collective action of all stakeholders, including Islamic financial institutions, Shariah scholars, policymakers and the general public. It underscores the need for institutions to adopt comprehensive sustainability frameworks that not only integrate Shariah principles but also build upon established global standards, with the International Capital Market Association (ICMA) Green Bond Principles serving as a critical foundation point.[3]

The report calls for a unified approach to harmonise Islamic finance with global sustainability benchmarks and accelerate the sector's contribution to sustainable development goals. Key recommendations include:

- Implement rigorous capacity-building programs to enhance expertise in Islamic green finance
- Strategically upskill Shariah boards to effectively address environmental concerns
- Introduce regulatory incentives to drive increased green sukuk issuance
- Develop standardised Shariah compliant frameworks for green and SDG aligned financial products
- Establish dedicated Islamic finance renewable energy investment funds
- Create enabling regulatory environments to support Islamic fintech solutions for clean energy financing
- Set specific targets for green financing aligned with national climate goals and NDCs

> The report asserts that transformative progress in Islamic sustainable finance can only be realised through the collective action of all stakeholders, including Islamic financial institutions, Shariah scholars, policymakers and the general public.

1.0 Introduction

Introduction

> Antonio Guterres, the UN Secretary-General described the climate crisis as humanity having "opened the gates of hell" during the 2023 Climate Ambition Summit in New York.[4]

This dramatic assessment underscores the critical urgency for climate action. According to the World Economic Forum's 2024 Global Risk Report, Environmental risks remain the most prominent concerns in the short and long term. In 2024, two-thirds of Global Risk Perception Survey respondents identify extreme weather as the highest risk likely to cause a significant global crisis.[5]

Anthropogenic climate change represents one of the most critical challenges of the contemporary era, with the intensifying frequency and severity of extreme weather events, such as droughts, floods and heatwaves. The resultant disruptions have extensive implications for food security, economic stability and the integrity of financial systems.

Climate change is directly linked to the escalation in global temperatures driven by the accumulation of greenhouse gases in the atmosphere. These emissions predominantly originate from the combustion of fossil fuels for electricity generation, industrial activities, and transportation.

Unprecedented Weather

According to the World Meteorological Organization (WMO), numerous climate records have been significantly surpassed in recent years. 2023 was confirmed as the hottest year on record, with global average near-surface temperatures 1.45°C above the pre-industrial baseline.[6]

WMO Secretary-General Celeste Saulo added that we are nearing the 1.5°C threshold of the Paris Agreement, a situation she describes as a "Red Alert" for the world. Climate change indicators reached record levels in 2023 where nearly one-third of the global ocean experienced a marine heatwave on an average day, harming ecosystems and food systems. By the end of the year, over 90% of the ocean had experienced heatwave conditions at some point.

The Arctic is warming faster than any other region on Earth, with temperature increases over twice the global average. This ongoing warming is causing a steady reduction in permafrost. Although it is an unlikely scenario, even without complete permafrost collapse, we could face a new "ancient pandemic" with the potential release of harmful contaminants and ancient diseases, both microbial and viral, within the next decade. Continued thermal expansion and the melting of glaciers and ice sheets caused a record high of global mean sea level since 1993.[7]

According to the Intergovernmental Panel on Climate Change report, sea levels could rise by as much as 88 centimetres by the end of this century, which would threaten many regions in the Middle East, including the coastal areas of the UAE and densely populated regions like the Nile Delta in Egypt and parts of the Tigris and Euphrates river system in Iraq.[8]

The Middle East and North Africa (MENA) regions are also the most vulnerable to desertification. The MENA region has 12 of the world's 17 most water-stressed countries, and by 2050, water scarcity related to climate change will cost Middle Eastern nations between 6% and 14% of their global domestic product.[9]

12/17

Most water-stressed countries are in the MENA region

Business Impact

Addressing climate is no longer a choice or merely a matter of corporate social responsibility, it is a fundamental requirement for business continuity.

Hence, business resilience to climate risk and opportunities is becoming an integral part of corporate strategy to ensure business longevity and to comply with global reporting standards such as the TCFD, CSRD, etc. According to Net Zero Tracker, nearly 60% of the 1,977 publicly listed companies have set net zero targets realising that supply chain disruption is one of the major climate relates risks for any business.[10] Producers of nine key commodities, including critical minerals, major crops, and essential metals, are expected to face increasing heat stress and drought.

A systematic transition to renewable energy is imperative for mitigating the socio-economic consequences of climate change and enhancing resilience. Given that fossil fuels are a principal contributor to environmental degradation, there is an urgent need to shift towards sustainable energy alternatives. In this context, Islamic finance can play a pivotal role in facilitating the transition by mobilizing capital for renewable energy investments. Such investments not only align with Islamic ethical principles: promoting environmental stewardship and social equity: but also offer commercially sound opportunities within a rapidly evolving global energy landscape.

1,186

Publicly listed companies have set net zero targets

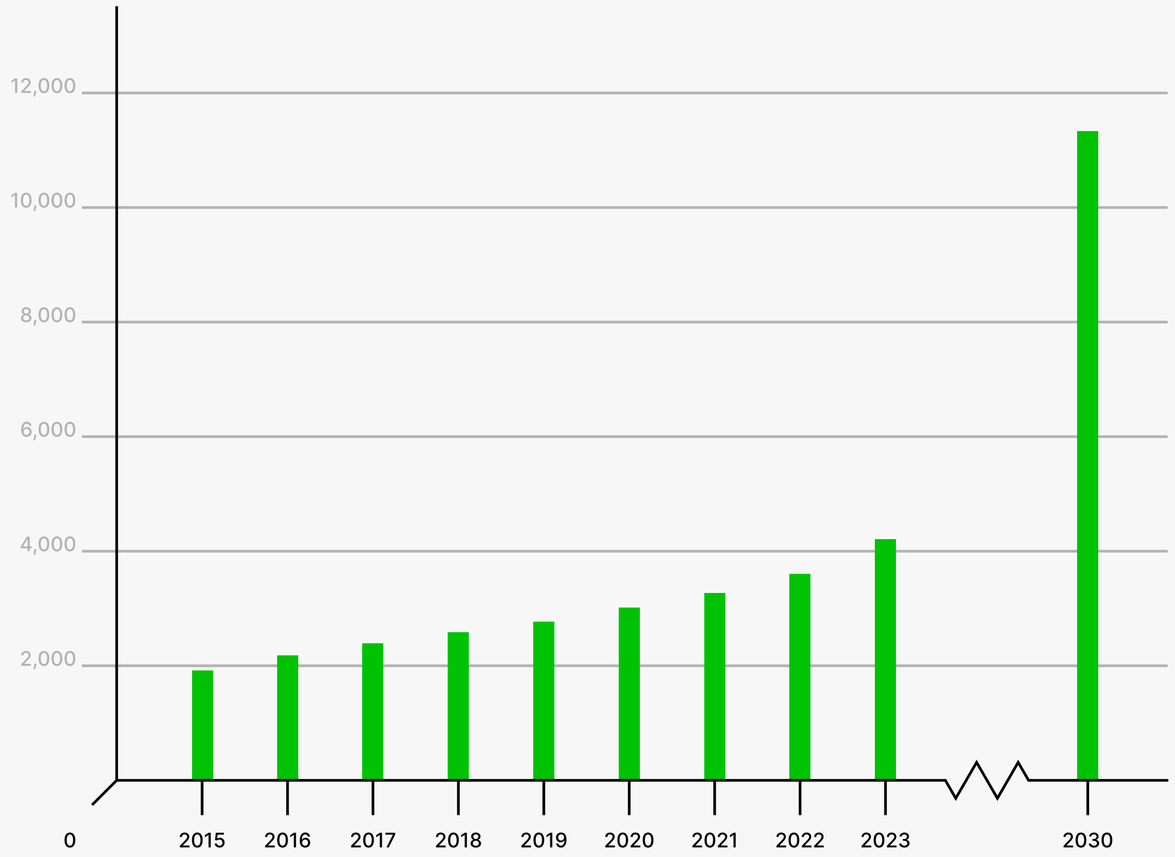
2.0 Renewables

Renewables

This section provides an overview of the key sources of renewable energy and the global capacity and production levels alongside future renewable energy targets. This illustrates the business case for financing the growth in renewable energy.

Electricity production worldwide is primarily powered by fossil fuels, with coal, oil and gas being the dominant sources, constituting 79% of global energy production.[11] The energy sector is responsible for around 85% of total global CO_2 emissions. To meet decarbonization targets in 2030, the world needs to triple renewable by 2030, which according to the latest IEA World Energy Outlook 2024 requires increasing current annual investments in renewable power, grids and battery storage to $2.5 trillion by 2030 which presents a strong market opportunity.[12]

Global renewable energy capacity and COP28 pathway, 2030[13]



Renewable Energy Sources

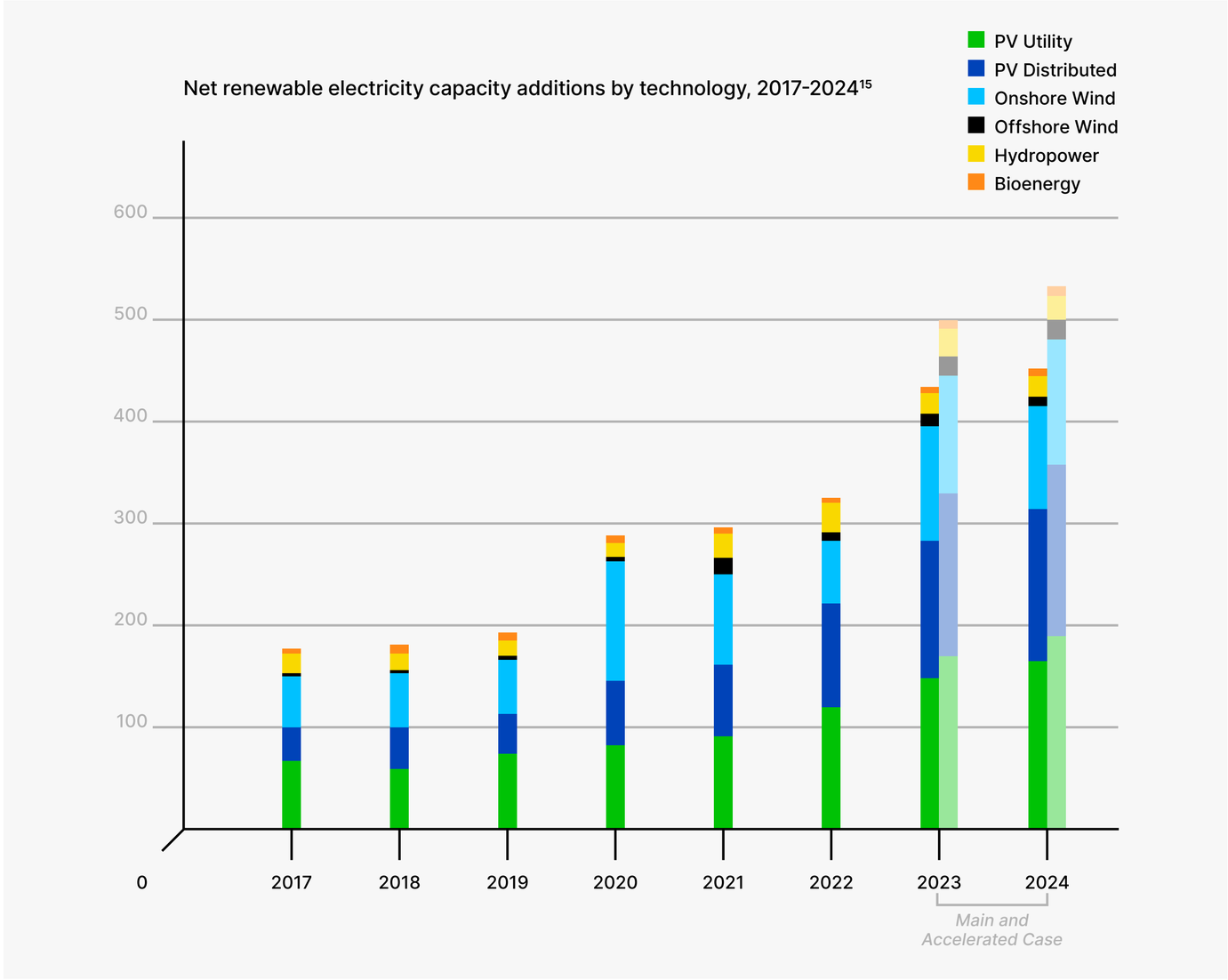
Renewable energy has become central to climate action due to its potential to meet decarbonization goals. Between 2017 and 2024, the International Energy Agency (IEA) documented a substantial rise in global net renewable electricity capacity additions, predominantly driven by policy frameworks aimed at decarbonization, technological progress and cost reductions in specific renewable energy sectors. The period saw differentiated growth patterns across various technologies, including solar photovoltaic (PV), wind, hydropower, bioenergy, and other less common renewable sources.[14]

85%

Of the world's CO_2 emissions comes from electricity production

16%

Growth rate required to meet decarbonization targets in 2030



Solar Photovoltaic (PV)

2017-2020:
Solar PV was the fastest-growing renewable sector, with annual capacity additions over 100 GW, fuelled by a 90% decrease in levelized cost of electricity (LCOE) since 2010. Government incentives and technological advancements, such as more efficient modules, played key roles, especially in China, India, and the U.S.[16]

2021-2024:
The growth trajectory steepened, with projections exceeding 200 GW annual additions by 2024. Expansion was driven by emerging markets, ongoing policy support, increased utility-scale projects, and the integration of energy storage to address intermittency.

Wind Energy

2017-2020:
Wind energy saw steady growth, with annual additions of 50-60 GW. Onshore wind dominated, while offshore projects gained momentum, particularly in Europe. Technological improvements, like larger turbines, boosted capacity factors.

2021-2024:
Forecasts projected nearly 110 GW in annual additions, with offshore wind playing a larger role. Growth was supported by the EU Green Deal, ambitious targets in China, and advancements in floating offshore technology, which enabled installations in deeper waters.[17]

Hydropower

2017-2020:
Hydropower's growth was modest, with 20-30 GW annual additions, limited by regulatory, environmental, and social challenges. Expansion was concentrated in emerging markets like Southeast Asia and Africa.

2021-2024:
Growth continued to decelerate as large-scale projects faced scrutiny. Efforts shifted to modernizing existing infrastructure for improved efficiency, though hydropower remained essential for grid stability.

Bioenergy

2017-2020:
Moderate growth (5-10 GW annually) was driven by supportive policies, especially in the EU. However, concerns over feedstock sustainability limited its share in the renewable mix.

2021-2024:
Expansion stayed modest, with a focus on advanced applications such as combined heat and power (CHP) and bioenergy with carbon capture and storage (BECCS).

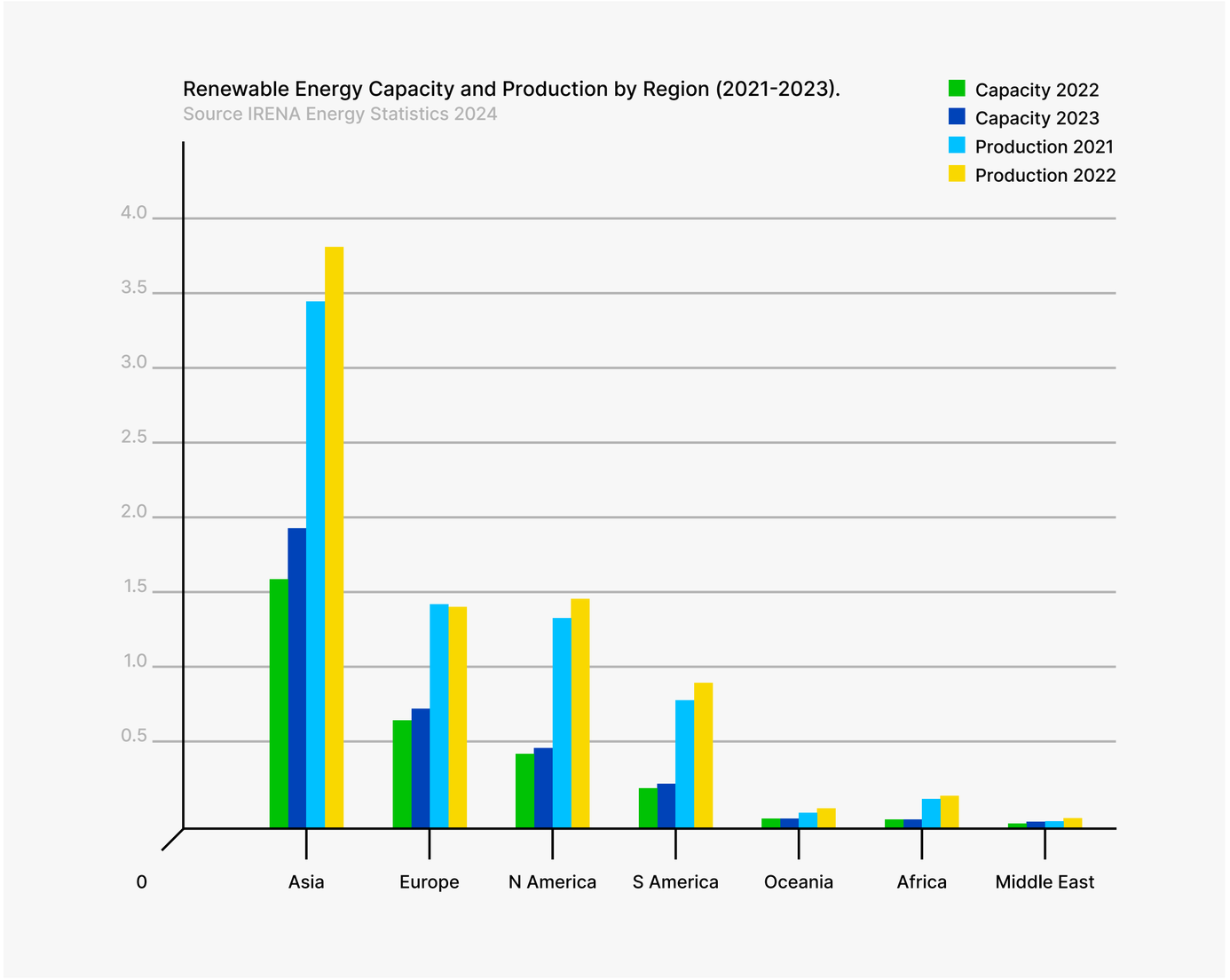
Other Renewable Technologies (Geothermal, Ocean Energy)

2017-2020:
Minimal contributions from geothermal and ocean energy, with development largely limited to resource-rich areas.

2021-2024:
Slow progress continued, with geothermal expansion into new regions and advancements in tidal and wave energy, though their impact on overall capacity remained limited.

Global Landscape: Capacity and Production

Recent statistics from IRENA 2024 reveal a robust global expansion in renewable energy capacity and production with notable regional variations. Asia and North America are leading this growth, though discrepancies exist between capacity and production metrics.



98%

Of all net renewable additions in 2023 is accounted for by solar and wind energy

Global renewable energy capacity grew significantly from 2022 to 2023, by 473 GW reflecting a 14% increase. Solar and wind energy continued to dominate renewable capacity expansion, accounting for 98% of all net renewable additions in 2023.[18]

Africa

Capacity had a 5% rise, with South Africa having the largest capacity of 10,623 MW in 2023, followed by Egypt and Ethiopia. Egypt is the largest producer in the continent with production increasing from 25,164 to 26,488 MW.

Asia

Asia again accounted for the majority of new capacity in 2023 (69%), with a robust 21% capacity growth from 2022 to 2023 and a 10% increase in production from 2021 to 2022, with China leading the sector, followed by India and Japan. Notably, China's capacity between 2022-2023 surged from 1,156,126 to 1,453,701 MW, an increase of 26%. However, its total production decreased slightly, from 2,625,256 to 2,402,806 MW. India and Indonesia also saw increases in both capacity and production.

Europe

In Europe, capacity grew from 715,649 in 2022 to 785,821 MW in 2023, a 10% increase, whereas production decreased marginally from 1,470,362 MW in 2021 to 1,461,749 MW in 2022, a 0.6% drop. Germany led this growth, with its capacity increasing from 149,143 to 166,939 MW. Despite this, production decreased from 233,638 MW to 251,087 MW. Spain's capacity grew, but its production dropped slightly, while the UK saw increases in both metrics.

North America

North America showed a strong upward trend in both capacity and production with 7% and 9% increase respectively.

Oceania and South America

Oceania and South America also showed steady increases in both capacity and production.

69%

Of new capacity in 2023 accounted for by Asia

10%

Increase in capacity in Europe in 2023 from 2022

MENA Landscape: Capacity and Production

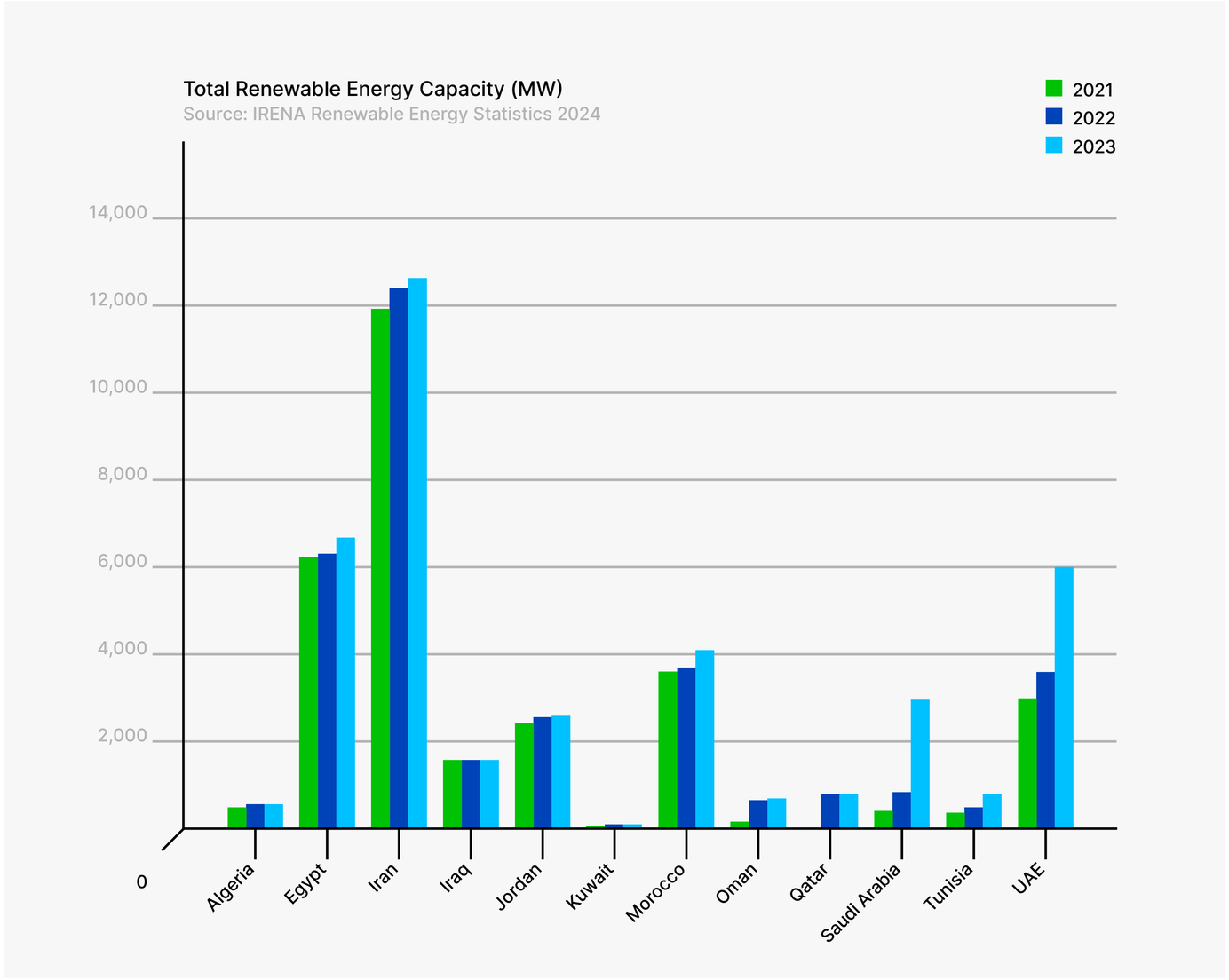
The Middle East

The Middle East also recorded its highest expansion on record, with a 18% capacity increase from 30,501 MW in 2022 to 35,825 MW in 2023 and a 17% production increase from 40,528 MW in 2021 to 47,382 MW in 2022. The UAE and Saudi Arabia showed notable increases in capacity, contributing significantly to the region's growth.[19]

The Middle East is home to five of the largest oil producers globally: Saudi Arabia, Iraq, the UAE, Iran, and Kuwait. Furthermore, the region is crucial for natural gas production, with Iran, Qatar, and the UAE all ranking among the top ten producers in the world.

The Middle East is poised to lead in renewable energy as well due to its abundant resources, strategic government initiatives, and the integration of ethical financing structures. The region boasts high solar irradiance and significant wind potential. Saudi Arabia's Vision 2030 and the UAE's Energy Strategy 2050 are leading the transition with surging investments in renewable energy projects.

Additionally, increased regional cooperation fosters knowledge sharing and joint investments. In 2024, energy investment in the Middle East is projected to reach around USD 175 billion, with renewable energy representing about 15% of that total. According to the Arab League's Pan-Arab Strategy (APS) for 2030, renewable energy investments are set to increase more than threefold compared to 2024 levels.[20]



MENA Landscape: Capacity and Production

The MENA region has seen significant investments in renewable energy, with several countries emerging as leaders:

Saudi Arabia:
Over 300% increase in renewable capacity from 2022 to 2023, with key projects including the Sudair Solar Power Project (2.6 GW).[21] The country has allocated $50 billion for renewable initiatives and aims to reduce emissions by 278 million tons by 2030.[22]

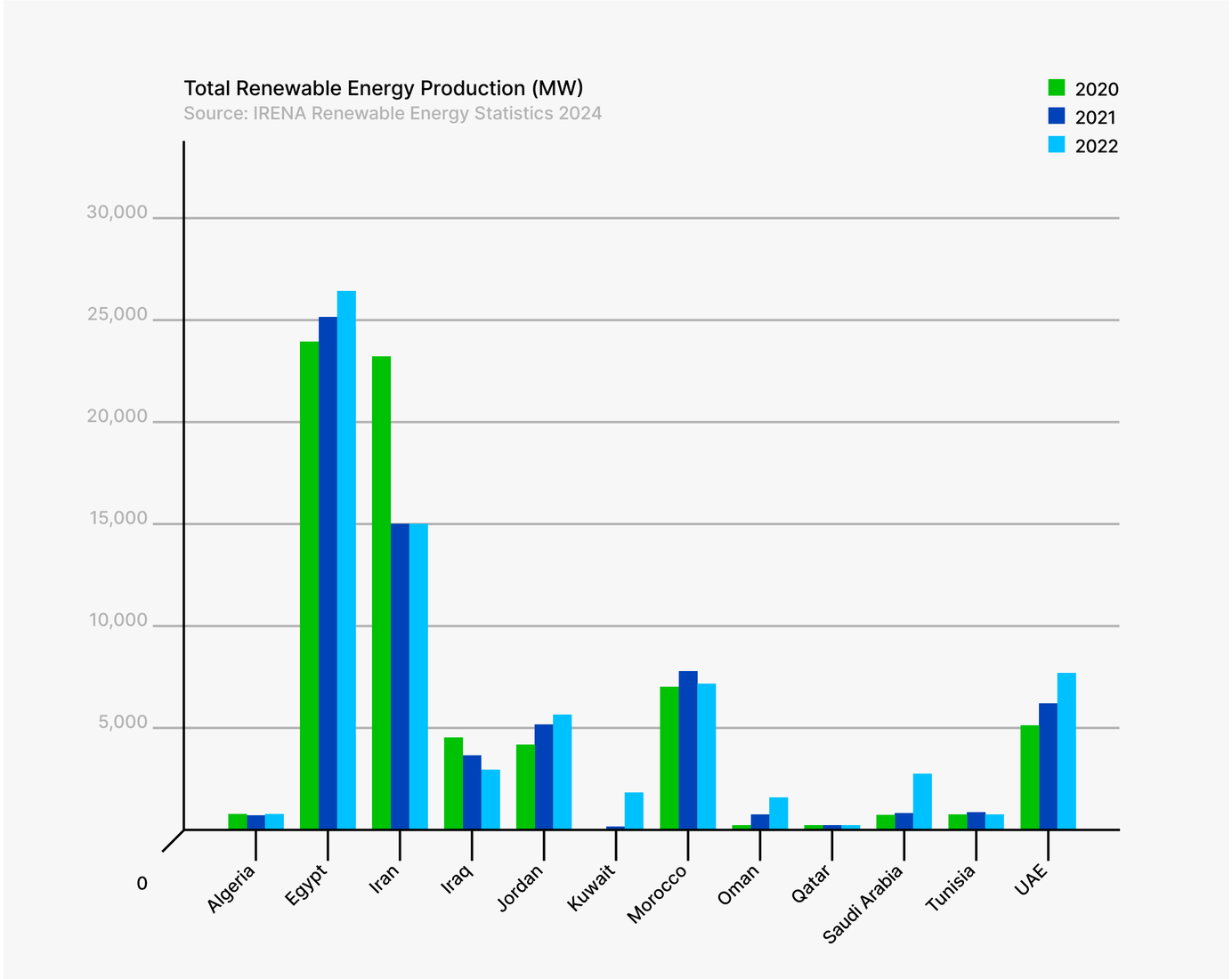
United Arab Emirates (UAE):
Rapid growth from 2.4 GW in 2021 to around 4 GW in 2023, led by projects like the Al Dhafra Solar PV Project (2 GW) and a strong hydrogen roadmap aimed at establishing the UAE as a global leader in hydrogen.[23] The UAE aims for a 40% emissions reduction by 2030.[24]

Morocco:
13% increase in renewable capacity, highlighted by the NOOR Ouarzazate Solar Complex (580 MW).[25]

Egypt:
Stable growth with significant projects like the Benban Solar Park (1,650 MW).[26]

Jordan:
Strong commitment to renewables with a focus on solar and wind supported by projects like the Fujeij Wind Farm.[27]

Algeria:
Ambitious plans to increase renewable energy capacity, targeting 27% emissions reduction by 2030 with projects like the Hassi R'Mel Solar Power Plant.[28]



Conclusion: Renewable Energy a $30TRN Opportunity

Countries worldwide, including those in the Middle East, have set ambitious net-zero targets, although more can, and should, be done.

To meet decarbonization targets in 2030, the world needs to triple renewable by 2030, requiring an average of about 1,000 GW of renewable additional capacity per year.

This presents a $30trn market opportunity equating to about $5.7 trillion annually. Investments in renewable energy are expected to reach a record of $2 trillion in 2024, approximately double the amount invested in fossil fuels.[30]

$2TRN

Expected investments in renewable energy in 2024

	Renewable Capacity Additions	
Additions	**2023**	**2030 Targets (1.5°C Scenario)**
Renewable Power Capacity Additions	473 GW	1,044 GW
Annual Solar PV Additions	346 GW/YR	578 GW/YR
Annual Wind Energy Additions	116 GW/YR	360 GW/YR
Annual Hydropower Additions	7 GW/YR	28 GW/YR
Annual Bioenergy Power Additions	4 GW/YR	28 GW/YR
Annual Geothermal Power Additions	0.2 GW/YR	13 GW/YR
Annual Ocean Energy Power Additions	0.0018 GW/YR	10 GW/YR

Renewable Capacity Additions in 2023. Source: IRENA[29]

Conclusion: Renewable Energy a $30TRN Opportunity

It should be noted alongside funding the innate growth requirements of renewable energy (as described in detail above) there are other strong socio-economic benefits. These include:

Energy security

Dependency on a single energy source, fossil fuels, poses significant security risks. By relying on domestic renewable sources, countries lessen their dependence on imported fuels, which can be vulnerable to geopolitical tensions and market volatility. Additionally, renewable energy systems are decentralized and less susceptible to safety hazards or large-scale disruptions from attacks or natural disasters.

The financial risk of future stranded assets

Stranded assets are fossil fuel reserves that lose value or become liabilities before their anticipated economic life ends due to regulatory, economic, or technological risks. Policies that limit fossil fuel, falling oil prices, and advancements in energy efficiency and technology can significantly impact the value and viability of these assets.

Resilience

Renewable energy projects can be deployed rapidly compared to traditional power plants allowing faster recovery and adaptation during crises and ensuring that critical country infrastructure maintains power continuity. Renewable sources enhance grid resilience and sustainability by employing energy storage solutions, decentralized generation, and smart grid technologies allowing a steady and adaptable power supply, increase grid resilience against outages, and ensure effective balancing of supply and demand.

Opportunities for asset portfolio diversification

Reducing risk and increasing the stability of the investment portfolios.

Global Megatrend

Renewable energy is gaining global support due to increased environmental awareness and its significant public health benefits. As awareness of climate change and environmental degradation rises, there is a growing demand for transitioning away from fossil fuels. This shift not only helps combat climate change but also reduces air pollution, leading to improved public health outcomes and lower healthcare costs. Additionally, renewable energy is closely aligned with the Sustainable Development Goals (SDGs), particularly Goal 7 (Affordable and Clean Energy) and Goal 13 (Climate Action), reinforcing its importance in promoting sustainable development and healthier communities.

Islam and the Environment

Under Islamic principles, there is a clear responsibility placed on humans as part of the intricate balance of creation. This concept of trusteeship, known as “Khalifa” (steward or trustee), positions humans as caretakers within, not masters over, God’s creation.

> Do not waste water, even if you are on a running river.
>
> The Prophet Muhammad (SAW), Sunan Ibn Maja, Hadith 425

The Quranic concept of “Mizan” (balance) establishes this fundamental principle:

“And the heaven He raised and imposed the balance, that you not transgress within the balance. And establish weight in justice and do not make deficient the balance.”
Surat Ar-Rhman 55:7-9

This divine balance is not merely a physical equilibrium but a complex, interconnected system encompassing ecological, social, and spiritual dimensions. Our role as khalifah (trustees) on Earth is to maintain and nurture this delicate balance, not to disrupt it through exploitation or neglect.

The Quran repeatedly emphasizes how the universe is created in perfect equilibrium:

“He is the One Who created seven heavens, one above the other. You will never see any imperfection in the creation of the Most Compassionate. So look again: do you see any flaws?”
Surat al Mulk 3

“Now you see the mountains, thinking they are firmly fixed, but they are travelling just like clouds. That is the design of Allah, Who has perfected everything. Surely He is All-Aware of what you do.”
Surat Al Naml 88

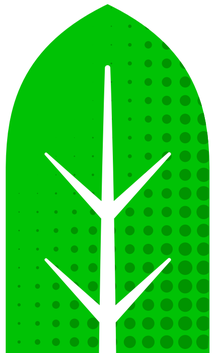
“He conducts every affair from the heavens to the earth, then it all ascends to Him on a Day whose length is a thousand years by your counting. That is the Knower of the seen and unseen—the Almighty, Most Merciful, Who has perfected everything He created. And He originated the creation of humankind from clay.”
Surat Al Sajdah 5-7

Any disruption to this divine balance is considered “Fasad” (corruption). This includes environmental degradation, pollution, overconsumption, and waste of resources. The Quran explicitly warns against such corruption:

“And remember when Moses prayed for water for his people, We said, ‘Strike the rock with your staff.’ Then twelve springs gushed out, ˹and˺ each tribe knew its drinking place. We then said, ‘Eat and drink of Allah’s provisions, and do not go about spreading corruption in the land.’”
Surat Al Baqarah 60

“O Children of Adam! Dress properly whenever you are at worship. Eat and drink, but do not waste. Surely He does not like the wasteful.”
Surat Al A’raf 31

Islamic scholars emphasize that environmental protection is intrinsically linked to the core objectives of Shariah (Maqasid al-Shariah). Preserving the environment is seen as essential to preserving human life, intellect, and wealth - fundamental goals that Islamic law seeks to protect. This creates a comprehensive framework for environmental ethics that combines spiritual responsibility with practical guidance for sustainable resource management.



Introducing Islamic Finance

Islamic finance encompasses financial services, such as banking and investment, operating in accordance with Shariah laws. These laws prohibit interest (riba), gambling (maysir), uncertainty (gharar), and investments in forbidden industries like alcohol and pornography. Islamic Finance is evolving from initially avoiding investments in sinful industries such as those involved in alcohol, pornography, gambling, pork related business or excessive debt to proactively investing in a manner consistent with Sharia values “Maqasid al Sharia”. This evolution underscores a moral duty in Islam to invest in projects that are green, sustainable and preserves the environment.

Islamic finance is built on the principle that all financial transactions must be ethical and benefit society, as governed by Sharia law. Regulatory bodies such as local central banks and multilateral bodies like the AAOIFI and IFSB oversee ethical standards, requiring Sharia committee approval for transactions. Another key principle is fairness, prohibiting exploitation, such as charging interest, which is seen as unjust. Instead, Islamic banks earn profits from successful investments, sharing the risk with borrowers and making returns through rent on asset backed transactions.

Accordingly, energy infrastructure as a physical asset aligns well with the Islamic contractual tools required by Islamic banks (ijaraa, murabaha, etc.). Sukuk (Islamic bonds) are a particularly well-suited tool for funding infrastructure projects, in particular green and sustainable sukuk.

Alignment with the principles and maqasid al shariah are helpful and presents Islamic finance as a willing counterparty. However, it should be remembered that Islamic finance remains a commercial activity and thus comparable risk adjusted returns remain a critical factor in unlocking Islamic sustainable finance liquidity pools. Islamic sustainable finance can simply be described as shariah compliant financing mandates which also integrate sustainability considerations.

Islamic Sustainable Finance: Activity Across Key Markets

Malaysia

Malaysia, one of the largest global markets for Islamic finance, has been focusing on the Maqasid driven approach towards Islamic finance. The Malaysian government, in its Twelfth Malaysia Plan roadmap for 2021-2025, stated that the country's development is aimed at advancing sustainability and promoting the green economy. The highlighted priorities include enhancing green financing and incentives, driving investment in renewable energy, and promoting the circular economy. Securities Commission (SC) Malaysia launched the Sustainable and Responsible Investment Roadmap for the Malaysian Capital Market (SRI Roadmap) in 2019. This was aimed at creating a facilitative SRI ecosystem and charting the role of the capital market in driving Malaysia's sustainable development.

In June 2022, the SC introduced the Sustainable and Responsible Investment linked (SRI-linked) Sukuk Framework (SRI-Linked Framework). In February 2023, ahead of COP 28, the Securities Commission published the revised Guidelines on Sustainable and Responsible Investment Funds setting out the reporting and disclosure requirements for a fund to qualify as a Sustainable and Responsible Investment ("SRI") Fund.[31] In October 2023. the Securities Commission Malaysia (SC) has the Maqasid Al-Shariah Guidance for the Islamic Capital Market, designed to enhance the Islamic capital market's competitive advantage.[32]

Bank Negara Malaysia has also been promoting engagement with the sustainability agenda through its Value-based Intermediation Financing and Investment Impact Assessment Framework launched in November 2019.[33]

The VBIAF seeks to support the adoption of an impact-focused risk management system for evaluating the financing and investment activities of Islamic financial institutions according to their VBI commitments. Additionally, the VBIAF provides a benchmark for other financial institutions aiming to integrate environmental, social, and governance (ESG) risk factors into their own risk management frameworks.

With Islamic finance now accounting for nearly 50% of market share in Malaysia it is anticipated that Islamic sustainable finance (i.e. the enhanced integration of sustainability ESG considerations into the current Islamic finance paradigm) will be central to underpinning the next 20 years of growth and development in that sector.

50%

Of market share in Malaysia is accounted for by Islamic finance

Saudi Arabia

The Kingdom of Saudi Arabia has developed its Green Financing Framework in accordance with the Green Bond Principles (GBP) in 2021, as published by the International Capital Market Association (ICMA), with an update included in the June 2022 appendix. This framework enables the Kingdom to issue Green Bonds and Sukuk. In line with these principles, the Kingdom commits to establishing specific arrangements for each Green Bond or Sukuk issued, as detailed within this framework.[34]

United Arab Emirates

The UAE Central Bank issued its directive – HSA Guiding Principles Regarding Islamic Sustainable Finance – at COP28 in November 2023.[35] This resolution requires all Islamic finance providers (IFIs) in the UAE under the Central Bank supervision to develop a growth plan towards offering Islamic sustainable finance products. The UAE Central Bank notes the natural alignment between Islamic finance principles and the concerns of sustainability and seeks to address environmental and social concerns. It looks to Islamic finance to be the "brand and face of sustainable finance in the UAE". In Feb 2023, SCA issued the regulatory framework for green and sustainability-linked bonds and sukuk complying with ICMA principles. In June 2023, SCA exempted corporates from registration fees for listing green and sustainability-linked bonds and sukuk during 2023.

Indonesia

Indonesia is first sovereign issuer of global green sukuk, with an issuance of $1.25 billion in March 2018, highlighting its innovative approach to financing sustainable development initiatives. Subsequently. In 2019 Indonesia issued its second global green sukuk worth $750 million and its first retail green sukuk worth IDR 1.46 trillion.[36]

The country's National Long-Term Development Plan of 2005-2025 sets out green and sustainable development plans for the Indonesian economy, which are estimated to require annual investment of between $300 billion and $530 billion. The majority of these investments will be directed towards critical infrastructure, agriculture, forestry, energy, mining and waste. Sustainable finance is part of the long-term strategic plan to move from a consumption-based economy to a productive economy focused on key sectors.

In 2014, Indonesia's Financial Services Authority (OJK) launched its Sustainable Finance Roadmap, which calls upon the financial sector, including capital markets, to contribute to the national commitment to address climate change.

The second phase of the roadmap, covering 2021-2025, provides a further blueprint for the sustainable transformation of the financial sector, aimed at strengthening the resilience and competitiveness of financial services. The OJK also set up a sustainable finance task force as a platform to coordinate the financial industry in developing a sustainable finance ecosystem under the five-year roadmap.

In 2017, the OJK released its Sustainable Finance Umbrella Policy, which outlined an action plan for banking, capital markets, and non-banking sectors. Under this policy, financial institutions were required to submit an annual plan to the OJK on their implementation of sustainable finance, covering the development of green financing offerings and expanding green portfolios, in addition to incorporating sustainability within organisation, risk management, and governance structures.

$1.25 BLN

Issued in global green sukuk in Indonesia, March 2018

Pakistan

In 2021, the Securities and Exchange Commission of Pakistan (SECP) approved national guidelines for green bonds and sukuk. According to these guidelines, green sukuk can only be issued based on globally accepted standards such as ICMA's Green Bond Principles. Eligible projects are expected to be mapped to the SDGs.[37]

Kuwait

In February 2022, Kuwait's Capital Markets Authority made comprehensive amendments to Module 11 of its Capital Markets Law executive bylaws to regulate the processes for issuance, listing and subscription of instruments including green, sustainability and social-impact bonds and sukuk.[38]

Bangladesh

Bank Bangladesh, issued its Policy on Green Bond Financing for Banks and FIs in September 2022, outlining guidelines on issuing green bonds for banks and non-banking financial institutions (NBFIs). These guidelines allow financial institutions to issue green bonds across eight sectors, only when their non-performing loans (NPL) are less than 10% of the total loans, with more relaxed rules for state-owned banks.[39]

The policy specifies that these green bonds must also comply with the Bangladesh Securities and Exchange Commission (Investment Sukuk) Rules and relevant Islamic Shariah principles.

Qatar

The Qatar Financial Centre (QFC) launched the GCC's first dedicated sustainable sukuk and bonds framework in March 2022 to further develop the local debt market.[40] The framework is based on ICMA's Green Bond Principles, Social Bond Principles and Sustainability Bond Guidelines. It is focused on promoting appropriate disclosures and the flow of relevant information, reporting and transparency to ensure that ESG objectives are met, and greenwashing risks are minimized.

Oman

Oman's Capital Market Authority issued Draft Bonds and Sukuk Regulation in 2021, which also covers SRI, including but not limited to social (Waqf), sustainable, green and, for the first time, blue sukuk.[41]

The Market: Size and Shape of the Commercial Opportunity for Islamic Sustainable Finance

As of 2023, the global Islamic finance industry has experienced continued expansion, with total assets reaching USD 4.5 trillion. Islamic banking remains the dominant sector, comprising 72% of these assets, while Sukuks represent 17%. Despite a slower growth rate in 2022, attributable to the global economic slowdown, Islamic finance assets are projected to exceed USD 6 trillion by 2027.[42] The most developed countries in Islamic finance according to IFDI 2023 are Malaysia, Saudi Arabia and Indonesia. These countries are also leading the Sukuks issuance. Notably, the UAE emerged as the top ESG sukuk issuer in 2023 due to increased focus on the energy transition agenda, particularly in relation to COP28.

Focusing on Green Sukuk

According to LSEG sustainable finance review for H1 2024, more than half of the screened Shariah-compliant equities were considered above average in terms of ESG scoring with the top performing equities from the healthcare, basic materials, consumer non-cyclicals and technology sectors.

The ESG sukuk market set another record year, with issuances reaching $9.9 billion in H1 2024, accounting for 74% of the total issuances in 2023.[43] During this period, sustainability sukuk regained momentum, along with sustainability-linked and social sukuk, and constituted 63% of total ESG sukuk issuance. Green Sukuk growth remains strong through government commitment to climate change and energy targets, investor demand and improved incentives and standards from policy makers.

In H1 2024 only, ESG sukuk issuances from Indonesia and Saudi Arabia surpassed their respective totals for the whole 2023 year. The ESG sukuk market broadened to 12 jurisdictions with a first-time issuance from Qatar. Corporates remain the top issuer of Green sukuk in Southeast Asia, specifically Malaysia and Indonesia lead the cumulative issuances of green sukuk.

Top cumulative issuer from 2017 to Q3 2024 is the Indonesia Government, with total issuance of $7.83 billion followed by the Islamic Development Bank with $5.07 billion issuance, then $3.06 billion issuances by the Malaysian government. The Saudi Electricity company and Dubai Islamic bank follow with cumulative issuance of $2.50 billion and $1.75 billion, respectively.

Notably, UAE was the largest issuance base in 2023. UAE corporates issued a record of $3.9 billion (Q3 2023 YTD) equal to 38% of global total as a result of increased regional focus on the energy transition agenda and UAE SCA initiatives.[44]

In 2022, the LSEG conducted an investor survey investigating the main reasons for investing in green and sustainability Sukuks. ESG mandates were the primary motivation for investing in ESG Sukuks followed by alignment with Sharia principles. 54% of respondents have already integrated ESG criteria within their Sharia-compliant portfolios. 46% of investors consider second party opinions the most useful tool for assessing sukuk green and sustainability credentials. It is worth highlighting that the top reason for investors refraining from green sustainability sukuks is ESG reporting and screening criteria, which requires a call to action for issuing companies.

According to the UKIFC, it is estimated that $30 billion to $50 billion of capital dedicated to SDGs could be raised through green and sustainability sukuk by 2025.[45]

To fully unlock the potential of Islamic sustainable finance, there are some implementation challenges that need to be considered:

Regulatory Risks:
The presence of inconsistent or unclear regulations across jurisdictions poses a substantial barrier to growth. Engaging proactively with regulators to establish standardised frameworks is essential for fostering a conducive environment for investment.

Market Risks:
The inherent volatility of renewable energy markets and fluctuations in government subsidies can threaten project viability. Islamic finance's risk-sharing structures can effectively distribute these uncertainties, enhancing financial resilience.

Operational Risks
Insufficient expertise in both Islamic finance and renewable energy sectors may lead to project shortcomings. Promoting capacity building (including for shariah scholars) through strategic partnerships between specialists in these fields can mitigate the risk of failures.

Reputational Risks:
Concerns regarding "greenwashing" or deviations from Shariah principles can undermine credibility. Implementing robust governance frameworks and ensuring transparent reporting are critical for maintaining trust and integrity in this sector.

Liquidity Risks:
The limited availability of secondary markets for Islamic finance instruments in renewable energy can restrict investment fluidity. Innovating to develop more liquid markets and diverse financial structures is necessary to alleviate these challenges.

Conclusion: A Natural Alignment

This section has highlighted the clear alignment in principles between Islamic finance and the renewable energy sector Renewables present an ideal asset class to expedite growth in Islamic sustainable finance. This also allows Islamic finance to attract wider agnostic investors looking to deploy into renewable energy projects across emerging markets where Islamic finance is well established.

3.0 Case Studies

Case Studies: Islamic Finance Investments in Renewable Energy

40

Power generation plants operated by SEC making it the largest utility in the MENA region

Case Study 1: Saudi Electricity Company (SEC)

The Saudi Electricity Company (SEC), established in 2000 through the merger of several regional electricity providers, serves as the national electric energy supplier in Saudi Arabia. With over 80% government ownership, SEC operates 40 power generation plants, making it the largest utility in the MENA region. Notably, SEC has positioned itself as a leader in sustainable finance, becoming the first utility in the Middle East to issue a green sukuk. This commitment to sustainability is exemplified by its landmark issuance in September 2020, where it raised USD $1.3 billion in green sukuk—this was the largest Green/ESG corporate issuance in Saudi Arabia for that year. In April 2023, SEC further advanced its green financing strategy with a dual tranche sukuk issuance totaling USD $2 billion, comprising a USD $1.2 billion green tranche dedicated to projects focused on climate change mitigation and energy efficiency.

The proceeds from these sukuk are allocated to projects aimed at enhancing energy efficiency and integrating renewable energy into the national grid.

Projected Environmental Impacts[46]

Reduction in Greenhouse Gas Emissions

The installation of approximately 10 million smart meters is projected to avoid around 1.89 million tonnes of greenhouse gas (GHG) emissions annually. This reduction is pivotal in combating climate change, aligning with Saudi Arabia's Vision 2030 goals to enhance environmental sustainability and reduce carbon footprints.

Energy Savings

By implementing smart metering technology, SEC anticipates energy savings that could account for 1% of the country's total energy consumption compared to 2019 levels. This efficiency translates to a substantial reduction in energy wastage, lowering the overall demand for power generation and its associated environmental impacts.

Enhanced Renewable Energy Integration

SEC's investments in infrastructure to connect renewable energy sources to the grid are expected to prevent approximately 7.9 million tonnes of CO_2 emissions per year starting in 2023. The increase in renewable generation capacity to 3,587 MW will not only diversify the energy mix but also promote energy security and resilience against fossil fuel price volatility.

Socio-Economic Benefits[47]

Job Creation

The construction and operation of new infrastructure and smart metering systems will create numerous job opportunities, both directly and indirectly. This includes high-quality jobs in manufacturing, installation, and maintenance of smart meters, as well as in renewable energy projects. Such employment opportunities contribute to economic stability and help mitigate unemployment, particularly among the youth.

Increased Access to Energy

By connecting renewable energy plants to the grid, SEC is enhancing access to electricity for underserved communities. Improved grid connectivity will benefit millions, enabling better access to essential services like healthcare, education, and technology. Enhanced energy access is crucial for fostering economic development and improving quality of life.

Smart Metering Benefits

The deployment of smart meters will facilitate automated billing and real-time energy usage data, empowering consumers to manage their energy consumption more effectively. This technology will not only lead to cost savings for households and businesses but also promote energy conservation behaviours among users.

Community Engagement and Development

SEC's initiatives aim to increase the number of beneficiaries from new technologies and projects to approximately 34 million people. This focus on community engagement fosters a sense of ownership and responsibility toward energy conservation and environmental stewardship, ultimately leading to more sustainable communities.

Economic Diversification

SEC's focus on renewable energy and energy efficiency supports Saudi Arabia's broader economic diversification goals under Vision 2030. By reducing reliance on fossil fuels and investing in sustainable energy solutions, SEC is contributing to a more resilient economy that can better withstand global energy market fluctuations.

Support for Sustainable Development Goals (SDGs)

SEC's projects align with multiple UN Sustainable Development Goals, particularly SDG 7 (Affordable and Clean Energy) and SDG 13 (Climate Action). By investing in energy efficiency and renewable energy, SEC contributes to global efforts to promote sustainable practices and combat climate change, enhancing its reputation as a responsible corporate citizen.

Case Study 2: Indonesian Government

Indonesia has emerged as a leader in sustainable finance, being the world's largest issuer of green sukuk and the first country to launch a sovereign green sukuk in 2018, raising USD 1.25 billion. The proceeds are dedicated to a range of eco-friendly projects, including sustainable transportation, renewable energy, and waste management. Notable milestones include the issuance of USD 1.5 billion in global green sukuk in 2022 and the largest green sukuk tranche ever issued that same year, which earned recognition as the best Islamic finance deal.

Additionally, the Indonesia Sustainable Finance Initiative (ISFI), launched in May 2018, aims to promote inclusive sustainable finance practices, while Indonesia's participation in the International Platform on Sustainable Finance (IPSF) further enhances its efforts to mobilize private capital for environmentally sustainable investments. By the end of 2022, the cumulative value of issued sukuk reached USD 6.9 billion, highlighting Indonesia's commitment to addressing climate challenges through innovative financing solutions.

In 2022, Indonesia made headlines by issuing the largest green sukuk tranche to date, amounting to $1.5 billion with a 10-year tenor and a 4.70% coupon rate. The issuance attracted a diverse range of investors, with significant interest coming from Asia (excluding Malaysia and Indonesia) at 34%, followed by Europe (27%), the USA (25%), and smaller shares from the Middle East and Malaysia (8%) and Indonesia itself (6%).

For quality assurance, EY provided a Second Party Opinion under SAE 3000 standards, ensuring adherence to best practices. The lead management was handled by a consortium of financial institutions including CIMB, Deutsche Bank, Dubai Islamic Bank, HSBC, and Standard Chartered Bank. Each of these banks also had dedicated Shariah advisors and supervisory committees in place to ensure compliance with Islamic finance principles.

The proceeds from these sukuk are allocated across various projects including renewable energy efficiency, sustainable transport, flood mitigation, green buildings, sustainable water and wastewater management.

$1.5 BLN

In global green sukuk issuance in 2022 in Indonesia

Projected Environmental Impacts[48]

1. Reduction in Greenhouse Gas Emissions

Solar PV Aids to Navigation:
Expected to reduce approximately 1,883.39 tonnes of CO_2 emissions annually.

Railway Infrastructure Expansion:
South Sulawesi Railway: Projected to reduce emissions by 242,689.23 tonnes of CO_2 annually.

North Java Line:
Expected reduction of 710,595.56 tonnes of CO_2 annually.

Sumatra Railway:
Anticipated reduction of 29,455.40 tonnes of CO_2 annually.

Total Estimated Reduction:
Over 974,823 tonnes of CO_2 emissions annually from combined railway and solar projects.

2. Improved Air Quality

The transition to renewable energy sources and increased use of rail transport will lead to a significant decrease in air pollutants, although exact figures depend on local baseline studies. However, the reduction of CO_2 and related emissions will contribute to cleaner air quality, positively impacting public health.

3. Enhanced Biodiversity Protection

Flood Mitigation Projects:
Investments of approximately USD 63 million to protect around 2,645 hectares of land from flooding, which can help preserve local habitats and biodiversity.

4. Sustainable Water Management

Irrigation Infrastructure Investments:
A total commitment of USD 191.27 million aims to improve water resource management across several provinces, enhancing agricultural productivity while reducing water wastage.

Public Drinking Water Supply Systems:
With an investment of USD 44.69 million, the initiative aims to provide clean drinking water to thousands of households, enhancing community health and well-being.

5. Waste Management Improvements

Regional Waste Management Systems:
Investments of USD 2.28 million for improvements in waste treatment capacity at facilities like Mamitarang Landfill, which has a treatment capacity of 500 tonnes/day.

Total Landfill Area:
Mamitarang Landfill spans 7.2 hectares, while Piyungan covers 12.5 hectares, facilitating better waste management for urban areas.

6. Flood Resilience

Infrastructure Development:
Projects covering 166 km of riverine flood control and 86 km of coastal protection structures in various provinces, expected to reduce flood risk for numerous communities and protect vital infrastructure.

7. Water Resource Management

Dam and Water Storage Rehabilitation:
Approximately USD 576.51 million is allocated for the rehabilitation of dams, lakes, and water storage systems across multiple provinces, enhancing water security and ecosystem health.

In summary, this green sukuk Issuance is projected to yield significant environmental benefits, with an estimated annual reduction of over 974,823 tonnes of CO_2 emissions. Additionally, it aims to protect 2,645 hectares of land from flooding, contributing to enhanced community resilience. The initiative includes substantial investments in water supply and irrigation, totalling USD 191.27 million for irrigation projects and USD 44.69 million for drinking water systems. Furthermore, it supports the development of 166 km of flood control structures, reinforcing infrastructure to manage and mitigate flood risks effectively.

Socio-Economic Benefits[49]

Economic Growth and Job Creation

The Sukuk's focus on infrastructure development, particularly in transportation and energy, is expected to stimulate local economies by creating jobs both during the construction phase and in ongoing operations. For instance, the expansion of railway infrastructure is likely to create employment opportunities in construction, maintenance, and operations, benefiting local communities and contributing to regional economic development. Moreover, investments in renewable energy projects, such as solar PV installations, will create green jobs.

Improved Public Health

The establishment of regional waste management systems and centralized wastewater treatment facilities will have a direct positive impact on public health. By reducing pollution and improving sanitation, these projects are expected to decrease the incidence of waterborne diseases, enhancing overall community health. Access to clean water through improved public drinking water supply systems will also support better health outcomes, particularly for vulnerable populations, including women and children.

Enhanced Transportation Connectivity

The development of new railway lines and infrastructure improvements will significantly enhance transportation connectivity across regions. Improved access to reliable transportation can facilitate trade, reduce transportation costs for goods and services, and enable easier access to education and healthcare. This connectivity is crucial for stimulating economic activity and integrating rural areas into broader economic networks.

Community Engagement and Empowerment

The projects emphasize community participation, particularly in sustainable resource management and building practices. Engaging local communities in the planning and execution of projects not only empowers them but also fosters a sense of ownership and responsibility toward environmental stewardship. Initiatives that support local businesses, such as those in construction and maintenance, will further strengthen community ties and contribute to sustainable economic practices.

Resilience to Climate Change

Investments in flood mitigation and water management infrastructure enhance the resilience of communities to climate-related challenges. By protecting vulnerable areas from flooding and ensuring a stable water supply, these projects not only safeguard livelihoods but also help communities adapt to changing climate conditions. This resilience is vital for long-term socio-economic stability and can reduce the economic impacts of climate disasters.

Alignment with Sustainable Development Goals (SDGs)

The socio-economic impacts of the green sukuk initiative align with multiple SDGs, including Decent Work and Economic Growth (SDG 8), Reduced Inequalities (SDG 10), and Sustainable Cities and Communities (SDG 11). By fostering economic opportunities, improving health outcomes, and enhancing social equity, the initiative contributes to a holistic approach to sustainable development.

4.0 Call to Action

Call to Action: Conclusion

Recommendations for all stakeholders

EDUCATE

E. Engage proactively with stakeholders, bridging the gap between the Islamic finance sector and the renewable energy sector as a solution to the climate crisis

D. Disseminate informative resources highlighting Islamic green finance success stories

U. Unlock capital for funding renewable energy projects and position Islamic finance as the preferred financier for renewable energy

C. Collaborate to create innovative financial instruments specifically designed for the needs of the renewable energy sector.

A. Advocate for reforms and better practices through dedicated platforms for Islamic financiers to engage with the energy sector

T. Take action within your role in the Islamic finance sector or the renewable energy sector

E. Evaluate and share outcome of Islamic green finance projects

Connecting Currents: Linking Islamic Finance and Renewable Energy Sectors

Islamic finance should proactively position itself as the preferred financier for renewable energy projects, considering the natural alignments. To facilitate this, establishing a dedicated platform (e.g. an annual forum) for Islamic financiers to engage with the energy sector is essential. This should be a collaborative effort by both the Islamic finance and energy sectors.

Renewable energy companies should seek to participate actively in this platform, share their commercial insights, and highlight their financing needs. Islamic financial institutions (IFIs) and renewable energy companies should seek to proactively collaborate to develop innovative structuring mechanisms such as green energy sukuk programmes specifically designed for this sector. Engagement with other stakeholders, such as multilaterals and ISDB, to create the programme and enhance credit rating should be considered.

With Islamic finance assets projected to exceed $6.7 trillion by 2027 and the renewable energy sector requiring $5.7 trillion annually, Islamic finance can serve as a powerful catalyst for scaling up renewable energy investments. The alignment between Shariah principles and renewable energy projects, combined with the potential for value- based financial instruments, positions Islamic finance as a key solution for addressing both the climate finance gap and the urgent need for global decarbonization.

$6.7 TRN

Projected in Islamic finance assets by 2027

Call to Action:
Islamic Financial Institutions and Corporates/Issuers

1. **Promote Islamic green finance capacity building within your organisation/ IFI**

- Secure consensus from the board to endorse and support the Islamic green finance strategy.
- Form a sustainability committee with the required mix of expertise.
- Identify risk factors and profitability benefits associated with climate and sustainability linked factors to the business division to unlock additional capital and resources.
- Hire and train a sustainability team with the skills needed to develop innovative financial structures and navigate market challenges.

2. **Understand the market's appetite**

- Undertake market surveys and research to better understand the level of awareness and appetite of your customers (institutional and retail) to assist in developing a business case for financing renewable energy.
- Identify alliances with agnostic liquidity pools that can co-invest with Islamic finance in renewable energy projects.

> According to the UKIFC banking customers survey in 2023, 90% of all respondents stated that it is very important or somewhat important that their bank provides products that are aligned to the UN SDG. 87% say they would be willing to pay a premium for UN SDG-aligned products, with a median price premium of 4.4%[50].

3. Develop a sustainability framework

- Establish a robust sustainability framework that integrates Islamic finance principles with contemporary environmental and social governance standards.
- Outline clear policies and procedures for evaluating, managing and ensuring alignment with both Shariah law and global sustainability benchmarks.

4. Support corporate issuers of Green Sukuk

- Foster a supportive environment for issuers to expand the market for green sukuk and encourage a wider issuer base.
- Offer advisory services on structuring green sukuk, facilitating connections with investors, and offering technical assistance in meeting certification requirements.

5. Inform policies and regulations for Islamic Green finance

- Engage with and inform the regulatory landscape to ensure it supports the growth of Islamic green finance in line with your bank's operational capabilities (e.g. ISDB, LSEG, ICMA Guidance on Green, Social and Sustainability Sukuk).
- Guide regulatory approaches that encourage green investments or remove barriers that hinder the issuance and adoption of green sukuk, for e.g. tax breaks or capital weighting discounts for green instruments.

6. Offer price incentives to customers

- Include reduced transaction fees, preferential rates, or other financial benefits that can lower the cost of investment.

7. Set targets for green financing books aligned to the countries NDC's and SDGs

- Establish clear, measurable targets for the green financing portfolio that align with the country's Nationally Determined Contributions (NDCs) and Sustainable Development Goals (SDGs).
- Publicly commit to these targets to demonstrate dedication to sustainable development and your role in contributing to national and global climate goals.
- Periodically release progress reports towards these targets to maintain transparency and accountability.

8. Support sustainable finance ecosystem development

- Align with international initiatives and join relevant net zero initiatives such as the UN Principles for Responsible Banking (PRB), the Net-Zero Banking Alliance (NZBA) and the Greenhouse Gas protocol (GHG)
- Support ecosystem development activities and encourage the formation of local and regional alliances to share best practices and harmonise understanding.

Call to Action: Shariah Scholars

1. Promote and advance Shariah rulings on sustainability and governance frameworks

- Proactively engage with your SSB and internal shariah compliance unit to increase their understanding of sustainability issues and the fossil fuel challenge
- Assist in capacity building for the scholars towards building foundational knowledge and creating a harmonised understanding.
- Develop guidance on select technical issues – e.g. Islamic viewpoint on carbon credits.
- Consider developing a public facing campaign anchored on a clear statement from shariah scholars on the importance of renewable energy.

2. Consider developing a comprehensive Sharia taxonomy for renewable energy projects and sustainable finance more broadly

- Work with IFSB, AAOIFI and other relevant key industry policy setting bodies to understand their existing activities in Islamic sustainable finance to identify where and how renewable energy can be included/enhanced within their current activities
- Consider establishing an additional checklist to augment the current Shariah-compliant framework specifically designed for green finance initiatives.
- Create quantitative metrics for evaluating the alignment with Maqasid al-Shariah, such as Maqasid scorecards.
- Examine existing Maqasid indices developed by scholars and institutions to assess the impact of policies and actions on the realisation of Maqasid objectives.

3. Clear messaging from scholars

- Shariah scholars should look to develop a synchronised view and present a clear statement on the climate emergency detailing action points they would recommend from banks, shareholders, customers, as well as other industries.

Call to Action: Policy Makers

1. Develop Islamic green finance road maps

- Create comprehensive frameworks that outline how Islamic finance can support sustainable development and environmental goals.

2. Introduce specific green sukuk guidelines

- Draft guidelines based on international standards such as the International Capital Market Association (ICMA) Green Bond Principles.
- Specify what constitutes a green sukuk, including the types of projects eligible for funding, and reporting standards.

3. Incorporate green sukuk with a government funding mix

4. Offer cost incentives to further issuance

- Waive or reduce the annual listing fees for green sukuk
- Consider tax breaks for retail and other investors into green sukuk
- Eliminate the requirement for a credit rating and guarantor for public offerings of green sukuk. This exemption should be restricted to qualified institutional investors with their own risk assessment methodologies to preserve market credibility. This exemption can be temporarily introduced as an additional measure to encourage green sukuk issuances

5. Support the development of the Sharia taxonomy of green projects

- Harmonise taxonomy approaches
- Adapt international green and sustainability standards such as CICERO, TCFD for sukuk applications and disclosures

6. Establish clear green segments within stock exchanges (ESG screening)

- Introduce ESG indices or boards where listed entities are required to meet specific environmental and sustainability criteria

7. Support issuance of transition sukuks

- Encourage heavy emitters, that are not eligible to be classified as green, to be part of the change and the country's sustainability goals.
- Establish guidelines for transition sukuk, including eligible projects and reporting requirements.

Call to Action: General Public

Buy Green

- Request your banking provider to issue more Islamic sustainable financial products, for e.g. home energy efficiency products, green savings accounts (e.g. Gatehouse bank Woodland saver) and proactively adopt these products.
- Consider changing your energy provider to a more efficient option that prioritises sustainability and helps you save energy.
- Engage with government sustainability-linked initiatives where available.
- Direct your investments toward renewable energy projects and reduce allocations to fossil fuels.
- Encourage your bank to take the lead in climate action.

Green your Pensions

- Make sure your pension provider is investing in line with ESG practices. Where possible actively engage with the fund manager to encourage investment in renewable energy companies.

Green your Zakat

- Reach out to the charities you are donating to and encourage them to enhance their sustainability practices and disclosures.
- Assess the carbon footprint of your zakat and charitable donations and develop an action plan to reduce this.

5.0 Appendix

Appendix 1:
Acronym Glossary

Acronym	Full Name
AAOIFI	Accounting and Auditing Organization for Islamic Financial Institutions
CICERO	Shades of Green methodology used to assess green bond frameworks
CO_2	Carbon Dioxide
COP	Conference of the Parties
CSRD	Corporate Sustainability Reporting Directive
ESG	Environmental, Social, and Governance
GCC	Gulf Cooperation Council
GHG	Greenhouse Gas
GW	Gigawatts
ICMA	International Capital Market Association
IEA	International Energy Agency
IFSB	Islamic Financial Services Board
IRENA	International Renewable Energy Agency
LSEG	London Stock Exchange Group
MENA	Middle East and North Africa

Acronym	Full Name
MW	Megawatts
NDC	Nationally Determined Contributions
OJK	Otoritas Jasa Keuangan, Financial Services Authority in Indonesia
PRB	Principles for Responsible Banking
SCA	Securities and Commodities Authority
SDG	Sustainable Development Goals
SEC	Saudi Electricity Company
Solar PV	Solar Photovoltaic
TCFD	Task Force on Climate-related Financial Disclosures
UAE	United Arab Emirates
UKIFC	UK Islamic Finance Council
UN	United Nations
WMO	World Meteorological Organization
YTD	Year to Date

Appendix 2:
Total Renewable Energy Capacity and Production Statistics[51]

Total Renewable Energy Capacity Statistics:

Region	Total Renewable CAP 2022 (MW)	Total Renewable CAP 2023 (MW)	% Change
World	3,391,349	3,864,552	13.9%
Africa	59,342	62,066	4.6%
South Africa	10,505	10,623	1.1%
Egypt	6,322	6,709	6.1%
Asia	1,620,944	1,959,076	20.9%
China	1,156,126	1,453,701	25.8%
India	163,213	175,934	7.8%
Indonesia	12,603	13,332	5.8%
Malaysia	9,052	9,052	0%
Europe	715,649	785,821	9.8%
Germany	149,143	166,939	11.9%

Region	Total Renewable CAP 2022 (MW)	Total Renewable CAP 2023 (MW)	% Change
Spain	73,818	80,136	8.6%
France	64,692	67,916	5%
UK	53,086	55,720	5%
Middle East	30,501	35,825	17.5%
Iran	12,399	12,653	2%
UAE	3,613	6,035	67.1%
Saudi Arabia	843	2,988	254.3%
N America	492,473	526,967	7%
Oceania	58,744	64,400	9.6%
S America	266,925	289,663	8.5%

Total Renewable Energy Production Statistics:

Region	Total Renewable PROD 2021 (MW)	Total Renewable PROD 2022 (MW)	% Change
World	7,872,657	8,439,671	7.2%
Africa	197,613	204,542	3.5%
South Africa	11,169	12,261	9.8%
Egypt	25,164	26,488	5.3%
Asia	3,429,264	3,784,551	10.4%
China	2,625,256	2,402,806	8.5%
India	307,364	338,189	10%
Indonesia	55,767	65,044	16.7%
Malaysia	30,626	30,627	0.003%
Europe	1,470,362	1,461,749	0.6%
Germany	233,638	251,087	7.5%

Region	Total Renewable PROD 2021 (MW)	Total Renewable PROD 2022 (MW)	% Change
Spain	125,747	122,960	-2.2%
France	122,251	113,895	-6.8%
UK	122,338	135,159	10.5%
Middle East	40,528	47,382	16.9%
Iran	15,084	15,084	0%
UAE	6,262	7,766	24%
Saudi Arabia	891	2,839	218.1%
N America	1,374,579	1,492,546	8.6%
Oceania	109,576	125,033	14.1%
S America	840,780	940,479	11.9%

Appendix 3:
Saudi Electricity Company First International Sukuk[52]

Second Party Opinion	Lead Managers	Shari'a Advisors
• Provided by Vigeo Eiris as described in the GBP voluntary guidelines (June 2018 Edition) edited by ICMA • Covering all the features of the Sukuks, based on pre-issuance assessment and commitments publicly available on the website	• First Abu Dhabi Bank • PJSC • HSBC • J.P. Morgan • MUFG • Standard Chartered Bank	• The Shari'ah Supervisory Board of First Abu Dhabi Bank PJSC • The Executive Shari'ah Committee of HSBC Saudi Arabia • The Shar'iah advisors of J.P.Morgan Securities plc • The Global Shari'ah Supervisory Committee of Standard Chartered Bank Each of the Shari'ah Advisers has reviewed the Transaction Documents and confirmed that the Certificates are, in their view, compliant with the principles of Shari'ah as applicable to, and interpreted by, them

1.3 billion USD International Green Sukuks (US$650,000,000 Green Certificates due 2025 & U.S. $650,000,000 Green Certificates due 2030).

Appendix 3: Saudi Electricity Company First International Sukuk

Use of Proceeds	Projects
100% capital allocation of an amount equal to the net proceeds The net proceeds of the issue of the Certificates of each Series, of approximately U.S.$650,000,000 in the case of the 2025 Certificates and approximately U.S.$650,000,000 in the case of the 2030 Certificates, will be used by the Trustee (HSBC Corporate Trustee Company (UK) Limited) as the purchase price to be paid to SEC on the Closing Date for the purchase of the Ijara Assets relating to each Series.	**Energy: Efficiency** Procurement and installation of approximately 10 million Smart Metres, from which 3.5 million will be sourced from Saudi Arabian local manufacturers for different uses (including home, commercial, agriculture etc.). These Smart Metres are part of the company's Smart Metering Project, which aims at offering an automated billing process and improving power usage patterns. The Sukuks will finance the project's three phases: 1. Replacing the old, mechanical metres with new, smart ones 2. Connecting the new metres to a telecommunications grid 3. Tying the metres into the company's billing system and launching a smartphone app.

Use of Proceeds	Projects
SEC will use an amount equal to the net proceeds received from the Trustee to finance and/or refinance in whole or in part Eligible Green Projects as described in accordance with the Green Sukuk Framework and in alignment with: • ICMA Green Bond Principles, June 2018 • EU Taxonomy Regulation Environmental Objectives	**Renewable Energy** Capital expenditure for construction and/or operation of the transmission and/or distribution infrastructure for connecting renewable energy (wind and solar) sources to the grid. List of projects to be completed by 2021: • Connecting the renewable energy (wind) – Dumat Al-Jandal • Connecting the renewable energy plant – Rabigh • Connecting the renewable energy plant – Al Faisaliah • Connecting the renewable energy station in Qurayyat • Connecting the renewable energy plant in Rafha • Connecting the renewable energy plant in southern Jeddah • Connecting the renewable energy plant in Medina • Connecting the renewable energy plant in Sakaka (solar) • Connecting the renewable energy plant in Sudair (solar)

*Likely to contribute to SDG7 Affordable and Clean Energy and SDG13 Climate Action

Appendix 3: Saudi Electricity Company First International Sukuk

Process for Project Evaluation and Selection	Management of Proceeds	Reporting**
SEC's Green Financing committee is responsible for the evaluation and selection of the projects to be financed and/or refinanced through the proceeds of Green Financing. The Green Financing Committee: 1. Receives a pre-approved project list from the 'Investment Committee'. 2. Reviews the project list and assesses their eligibility for Green financing in line with the Green Sukuks Framework 3. Monitors that Eligible Projects continue to meet the Eligibility Criteria.	The net proceeds will be moved to a dedicated sub-account, and an amount equivalent to the net proceeds of each Green Sukuk will be earmarked for allocation to the sub-portfolio, in accordance with the SEC Green Sukuk Framework. In case of any material ESG allegations or controversies, SEC will investigate the allegations and provide corrective measures if required. Pending the full allocation of the net proceeds to Eligible Green Projects, any unallocated funds will be held in cash, short term deposits or marketable Sovereign securities, within SEC's Treasury liquidity policy, at its own discretion	Allocation reporting on an annual basis starting one year from the first Green Sukuk issuance, until the full allocation of the net proceeds to Eligible Green Project Portfolio, and as necessary in the event of any material changes **Allocation Reporting** • % of an amount equal to the net proceeds allocated to Eligible Green Projects • % of financing/refinancing • A breakdown of allocated amounts to Eligible Green Projects Impact Reporting **Energy Efficiency – Smart Metres:** **Environmental:** • Ex-ante estimates of annual GHG emissions avoided (in tCO_2e) • Ex-ante estimates of annual energy savings **Social:** • Number of smart metres installed • Number of people that benefits from the technology **Renewable Energy** **Environmental:** • Ex-ante estimates of annual GHG emissions avoided (in tCO_2e) • Renewable energy generation (MWh) **Social:** • Number of people that benefit from the grid

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Appendix 4:
Indonesia 2022 Global Sukuk[53]

Second Party Opinion	Lead Managers	Shari'a Advisors
Provided by EY as limited assurance engagement, as defined by Standards on Assurance Engagement (SAE) 3000 (Assurance Engagements Other than Audits or Reviews of Historical Financial Information) established by the Indonesian Institute of Certified Public Accountants (IICPA)	• CIMB • Deutsche Bank • Dubai Islamic Bank • HSBC • Standard Chartered Bank	• CIMB Islamic Bank Berhad • Khalij Islamic • Sharia Adviser of Deutsche Bank AG, London Branch • The Internal Sharia Supervisory Committee (ISCD) of Dubai Islamic Bank PJSC • The HSBC Global Shariah Supervisory Committee • The Standard Chartered Bank Global Sharia Supervisory Committee

1.5 billion USD Global Green Sukuks (10 years tenor, 4.70% coupon)

Investors: 34% Asia (excluding Malaysia and Indonesia), 27% Europe, 25% USA, 8% Middle East and Malaysia, 6% Indonesia

Appendix 4: Indonesia 2022 Global Sukuk

Use of Proceeds	Projects
100% capital allocation of an amount equal to the net proceeds. Per 31 December 2002, the total amount allocated to financing is 25% of the 2022 global green sukuk proceeds (USD 1.5 billion). Any amount exceeding the green sukuk proceeds is financed by other sources of fund available in the general treasury account. The Republic intends to use the net proceeds it receives from the issuance exclusively to finance or refinance expenditure directly related to "Eligible Green Projects" according to "The Republic of Indonesia Green Bond and Green Sukuk Framework" and in alignment with: • ICMA Green Bond Principles, June 2018 • EU Taxonomy Regulation Environmental Objectives Eligible Green Projects shall exclude the below: • New fossil fuel based electric power generation capacity and expenditure related to the improvement in the efficiency of fossil fuel based electric power generation. • Large scale hydropower plants (>30 MW capacity) • Nuclear and nuclear–related assets Per 31 December 2022, the total amount allocated to financing is 75% of the 2022 global green sukuk proceeds (USD 1.5 billion). Any amount exceeding the green sukuk proceeds is financed by other sources of fund available in the general treasury account.	**Implemented in 2022: Renewable Energy** Installation and revitalization of solar PV powered aids to navigation at sea devices to enhance the sea safety transportation and traffic services. These devices include solar PV for lighthouses, beacons and flare buoys. These devices will be installed in the following locations : Aceh, North Sumatra, West Sumatra, South Sumatra, Riau, Central Java, East Java, East Kalimantan, North Kalimantan, Southeast Sulawesi, North Sulawesi, Maluku, Papua, West Papua. Amount committed in 2022 USD: 2,237,293.69 (average project lifetime: 3-5 years) Procurement and installation of rooftop solar PV at Pondok Cabe Type A Bus Station in South Tangerang City in Jakarta. Impacts tbc Amount committed in 2022 USD: 336,763.21 (average project lifetime: 3-5 years) Provision and revitalization of the above Amount committed in USD: 34,227 (average project lifetime: 3-5 years) Refinancing projects of the 2021 retail green sukuk allocation. Installation of solar power plants at 22 border outposts located in remote areas with no electrical network. By using solar energy, the border outposts are self-reliant for their electricity supply without relying on fossil fuel generated electricity. Amount committed in USD: 2,093,805 (average project lifetime: 3-5 years)

Use of Proceeds	Projects
	Resilience to Climate Change Flood mitigation in highly vulnerable areas and sectors through the development and rehabilitation of structures for urban and tidal flood control and beach protection such as breakwaters and drainage networks in the following locations: Bangka Belitung Islands, Special Capital Region of Jakarta, West Kalimantan, North Kalimantan, North Maluku. Amount committed in 2022: USD 63,105,196.57 (average project lifetime 10-20 years) **Waste to EneSurgy and Waste Management** Development and improvement of regional-scale waste management system in North Sulawesi and Special Region of Yogyakarta Province toward a sanitary landfill system. Mamitarang Regional Landfill serves Manado and Bitung Cities, and Minahasa and Minahasa Utara Regencies, which are few of the super priority tourism destinations. Piyungan Regional Landfill serves Yogyakarta City, Bantul, and Sleman Regencies. Amount allocated for this project is USD $2,278,900.79. Average project lifetime is 10-20 years **Sustainable Management of Natural Resources on Land** Development of facilities and infrastructures to support forest rehabilitation, including buildings and road access to nursery, forest and multipurpose species' seedling nursery, and wastewater treatment plant in North Sulawesi. Amount allocated for this project is USD $439,352.99. Average project lifetime is 5-10 years

Appendix 4: Indonesia 2022 Global Sukuk

Use of Proceeds	Projects
	Sustainable Transport Development of a new railway line in South Sulawesi Province to open public access to railroad services under the framework of regional economic development and transportation connectivity. The project includes road and bridge construction. Amount allocated for this project is USD $39,279,532. Average project lifetime is 10 years. Reactivation of Cross Citayam - Nambo Station and integration Facilities in support of the Greater Jakarta urban railway. It includes construction of the station main building, platform, and signal and telecommunication. Amount allocated for this project is USD $1,000,180.77. Average project lifetime is 10 years. Development of infrastructure to increase railway capacity, including the construction of double tracks under the framework of transportation connectivity across Java Island. The project includes railway and bridge construction and operation and management. Amount allocated for this project is USD $174,526,317.04. Average project lifetime is 10 years Development of infrastructure to increase railway capacity, including the construction of double tracks under the framework of transportation connectivity across Java Island. The project includes railway and bridge construction and operation and management. Amount allocated for this project is USD $58,915,150.95. Average project lifetime is 10 years

Use of Proceeds	Projects
	Sustainable Water and Wastewater Management Development of a centralised domestic wastewater management system at city scale covering house network, pipeline, control tub, and wastewater treatment plant in Jambi, South Sulawesi and South Sumatra. The sanitation system development program is one of the medium-term development priorities, with the aim to meet the target of 100% access to decent and safe drinking water by 2024. Amount allocated for this project is USD $13,567,978.74. Average project lifetime is 10-20 years Development and improvement of public drinking water supply system (SPAM) infrastructure of cities/regencies and of regional system that cover two or more cities to achieve an affordable, healthy and steady supply of drinking waterThis project covers Special Region of Yogyakarta, East Kalimantan, Lampung, North Sumatra. Amount allocated for this project is USD $19,331,532.92. Average project lifetime is 10-20 years

Appendix 4: Indonesia 2022 Global Sukuk

Use of Proceeds	Projects
	Refinancing of the following projects implemented in 2021: Flood Mitigation Development and rehabilitation of structures for urban and tidal flood control and beach protection, such as breakwaters and drainage networks. The project covers the following locations: North Sumatra, West Sumatra, Special Capital Region of Jakarta, West Java, Central Java, Special Region of Yogyakarta, East Java, Bali, West Kalimantan, South Kalimantan, South Sulawesi, Papua, West Papua. Amount committed in USD $260,737,761. Average project lifetime: 10-20 years. Equipment procurement for supporting the operation and maintenance of facilities and infrastructures in Special Capital Region of Jakarta. Amount committed in USD $12,431,842. Average project lifetime 10-20 years.
	Drought Management Development of groundwater and raw water facilities including wells, intake and transmission network to improve agricultural and drinking water in North Sumatra, Central Java, North Sulawesi, West Papua. Amount committed in USD $33,144,659. Average project lifetime: 10-20 years.

Use of Proceeds	Projects
	Sustainable Transport Development of a new railway line on Sulawesi Island, to open public access to railroad services, in the framework of regional economic development and transportation connectivity. The project includes railway and bridge construction. Amount committed in USD $ 1,259,515. Average project lifetime 10 years Development of infrastructure to increase railway capacity, including the construction of double tracks in the framework of transportation connectivity across Java Island. The project includes railway and bridge construction and operation & management. Amount committed in USD $ 2,665,094. Average project lifetime 10 years.
	Green Building Construction and retrofitting of buildings that takes into account green building standard and performance indicator set by the government. It included development of sport and entrepreneurship infrastructures at Musamus State University of Merauke Regency, Operation & Maintenance of the Ministry of Public Work and Housing building, and a safe house for children and women victims of violence in Special Capital Region of Jakarta Province. Amount committed in USD $2,665,094. Average project lifetime 10 years.

Appendix 4: Indonesia 2022 Global Sukuk

Use of Proceeds	Projects
	Sustainable Water and Wastewater Management Development and technical assistance of infrastructures of water resources for non- rice field irrigation network including irrigation civic structures and networks. Project covers the following areas: Aceh, North Sumatra, Jambi, Special Capital Region of Jakarta, West Java, Special Region of Yogyakarta, Central Kalimantan, South Kalimantan, West Nusa Tenggara, East Nusa Tenggara, South Sulawesi, North Maluku, West Papua. Amount committed in USD $191,265,356. Average project lifetime 10-20 years. Development and rehabilitation / revitalisation of structures of dams, lakes and water storages including the networks construction and rehabilitation. Project covers the following areas: Aceh, North Sumatra, South Sumatra, Special Capital Region of Jakarta, West Java, Central Java, Special Region of Yogyakarta, East Kalimantan, North Sulawesi, South Sulawesi, Southeast Sulawesi, East Nusa Tenggara, Gorontalo, West Sulawesi, Maluku Aceh, North Sumatra, South Sumatra, Special Capital Region of Jakarta, West Java, Central Java, Special Region of Yogyakarta, East Kalimantan, North Sulawesi, South Sulawesi, Southeast Sulawesi, East Nusa Tenggara, Gorontalo, West Sulawesi, Maluku. Amount committed in USD $576,507,648. Average project lifetime 10-20 years. Development, improvement and expansion of public drinking water supply system (SPAM) infrastructure of cities/regencies including water treatment plants and the pipelines construction. Project covers Lampung, East Nusa Tenggara, East Kalimantan. Amount committed in USD 44,688,514. Average project lifetime 10-20 years.

Appendix 4: Indonesia 2022 Global Sukuk

Process for Project Evaluation and Selection	Management of Proceeds	Reporting**
National Development Planning Agency and the Ministry of Finance will review and approve projects / budget allocation / subsidies to be included in the State Budget. Ministry of Finance will select “tagged” projects that: • Fall into one or more of the Eligible Sectors under this Framework And • Have a project development timeline consistent with the tenor of the applicable Green Bond or Green Sukuk to be Eligible Green Projects and funded by the use of proceeds of Green Bonds or Green Sukuk issued under this Framework.	Green Bond and Green Sukuk allocation register will be established to record the allocation of each Green Bond or Green Sukuk proceeds including: 1. Details of Each Green Bond or Green Sukuk (ISIN, pricing date, maturity date, etc.) 2. List of Eligible Green Projects, with information including: • Summary of projects details • Amount of proceeds allocated to each eligible projects • Expected climate and/or environmental impacts of eligible projects • Aggregate amount of proceeds of Green Bonds and Green Sukuk allocated to eligible projects • Remaining balance of unallocated proceeds • Other necessary information In case of asset divestment, the Republic of Indonesia will mark the proceeds as “unallocated” until the proceeds are used to finance or refinance other Eligible Green Projects.	The Ministry of Finance will prepare and publish a Green Bond and Green Sukuk report annually and initially on the date falling no more than one year after the inaugural Green Bond or Green Sukuk issuance. It will contain at least: 1. A list and brief description of the projects to which Green Bond and Green Sukuk proceeds have been allocated 2. The amount of Green Bonds and Green Sukuk proceeds allocated to such projects 3. An estimation of the beneficial impact arising from the implementation of Eligible Green Projects. Reporting is expected to include measures of the reduction in GHG emissions, reduction in resource consumption, the number of parties that benefit from projects funded and other appropriate measures taking into account the nature of the project.

**Subject to external verification by an External Auditor

Bibliography

1 London Stock Exchange Group. (2023). Navigating uncertainty: Global Islamic finance assets expected to exceed $6.7 trillion by 2027

2 London Stock Exchange Group. (2024). Sustainable Islamic Finance Review – H1 2024

3 International Capital Market Association

4 United Nations. (2023, September 20). Climate crisis has 'opened the gates of hell,' warns UN chief at Climate Ambition Summit

5 World Economic Forum. (2024). Global Risks Report 2024

6 World Meteorological Organization. (2024, January 12). 2023 shatters climate records, major impacts observed

7 Columbia University. (2022, September 13). What lies beneath melting glaciers and thawing permafrost?

8 Intergovernmental Panel on Climate Change. (2023). Climate Change 2023: Synthesis Report

9 World Economic Forum. (2019, March 28). Water scarcity is a growing problem across the Middle East. Is this how we solve it?

10 Net Zero Tracker. (2024). Net Zero Stocktake 2024

11 Ember. (2024, May). Global electricity review 2024

12 International Energy Agency (IEA). World Energy Outlook 2024. Paris: IEA, 2024

13 IEA (2024), Global renewable energy capacity and COP28 pathway, 2030, IEA, Paris, License: CC BY 4.0

14 International Energy Agency (IEA). (2024). Renewables 2024

15 IEA (2023), Net renewable electricity capacity additions by technology, 2017-2024, IEA, Paris

16 International Energy Agency (IEA). (2024). Renewables 2024

17 International Energy Agency (IEA). (2024). Renewables 2024.

18 International Renewable Energy Agency (IRENA). (2024). Renewable energy statistics 2024

19 International Renewable Energy Agency (IRENA). (2024). Renewable energy statistics 2024

20 International Energy Agency (IEA). (2024). World energy investment 2024: Middle East

21 Saudi Ministry of Energy. Renewable Energy Projects

22 National Debt Management Center (NDMC). Green Financing Framework. April 16, 2024

23 United Arab Emirates Government. Solar Energy

24 United Arab Emirates Ministry of Climate Change and Environment (MOCCAE)

25 World Economic Forum. "Morocco Is Building a Solar Farm as Big as Paris in the Sahara Desert." May 2018

26 World Economic Forum. "Egypt Is Building One of the World's Largest Solar Parks." January 2019

27 Fujeij Wind Power Company. About Us. (2016)

28 International Renewable Energy Agency (IRENA). "Planning Prospects for North Africa: 2023."

29 International Renewable Energy Agency. (n.d.). Tracking progress: Energy transition indicators. IRENA

30 International Energy Agency (IEA). World Energy Outlook 2024. Paris: IEA, 2024

31 SRI Sukuk Malaysia | Islamic Bonds | Green Sukuk

32 Securities Commission Malaysia. "Maqasid Al-Shariah Guidance for the Islamic Capital Market."

33 Value-based Intermediation Financing and Investment Impact Assessment Framework - Guidance Document - Bank Negara Malaysia

34 Green Financing Framework KSA

35 Central Bank of the United Arab Emirates. "Notice No. 5885/2023: The Higher Shari'ah Authority Resolution Regarding the Guiding Principles on Islamic Sustainable Finance."

36 Green Sukuk Allocation and Impact Report 2023. Ministry of Finance of Indonesia

37 "Financing a Sustainable Future." Global Ethical Finance Initiative. October 2022

38 "Financing a Sustainable Future." Global Ethical Finance Initiative. October 2022

39 "Financing a Sustainable Future." Global Ethical Finance Initiative. October 2022

40 "Financing a Sustainable Future." Global Ethical Finance Initiative. October 2022

41 "Financing a Sustainable Future." Global Ethical Finance Initiative. October 2022

42 London Stock Exchange Group. (2024). Sustainable Islamic Finance Review – H1 2024.

43 London Stock Exchange Group. (2024). Sustainable Islamic Finance Review – H1 2024.

44 London Stock Exchange Group. (2024). Sustainable Islamic Finance Review – H1 2024

45 LSEG Green & Sustainability Sukuk Update 2023. London Stock Exchange Group

46 "Green Sukuk Report 2021." Saudi Electricity Company

47 "Green Sukuk Report 2021." Saudi Electricity Company

48 Green Sukuk Allocation and Impact Report 2023. Ministry of Finance of Indonesia

49 Green Sukuk Allocation and Impact Report 2023. Ministry of Finance of Indonesia

50 "Attitudes of banking customers towards the UN SDGs2023." Global Ethical Finance Initiative and UK Islamic Finance Council

51 International Renewable Energy Agency (IRENA). (2024). Renewable energy statistics 2024

52 Saudi Electricity Company. (n.d.). Green Sukuk Prospectus

Saudi Electricity Company. (2021). Green Sukuk report 2021

Saudi Electricity Company. (n.d.). Green Sukuk framework

53 Ministry of Finance of Indonesia. (n.d.). Certificate Issuance Program

Ministry of Finance of the Republic of Indonesia. (n.d.). Green Sukuk Allocation and Impact Report