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Advancing Nature and Biodiversity Financing in the MENA Region

The Role of Islamic Financing

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11.1 INTRODUCTION

This chapter evaluates the potential role of Islamic finance as a tool to bridge the gap in current biodiversity financing in the Middle East and North Africa (MENA) region. It examines the legal and institutional challenges to Islamic biodiversity financing in the MENA region and proffers recommendations on how to address them.

Nature and biodiversity conservation has been identified as a key priority in several countries of the MENA region.[1] For example, Article 33 of the Permanent Constitution for the State of Qatar states: "The State shall conserve the environment and its natural balance for the comprehensive and sustainable use of its resources for all generations."[2] Qatar's National Vision 2030 rests on four key pillars, the fourth of which is to "manage the environment such that there is harmony between economic growth, social development and environmental protection."[3] Biodiversity conservation is considered vital, especially in the face of its fast-paced development and industrialization and in light of challenges such as increasing groundwater salinity, degrading soil quality, air pollution, climate change, rising sea levels, and biodiversity and species under threat.[4] In addition to its intrinsic value to nature and other nonhuman elements in the environment, biological resources play a critical role in advancing human society and its economic progress.[5] While there is growing

[1] Damilola Olawuyi, *Environmental Law in Arab States* (Oxford University Press 2022) 245–274.

[2] The State of Qatar, "The Permanent Constitution of the State of Qatar" (2004).

[3] Government of Qatar, *General Secretariat for Development Planning*, *Qatar National Vision 2030* (General Secretariat for Development Planning 2008) (hereafter Government of Qatar, Qatar National Vision 2030).

[4] Qatar Ministry of Environment, "Qatar National Biodiversity Strategy and Action Plan 2015–2025" (2014).

[5] M. T. Ladan, *Natural Resources and Environmental Law and Policies for Sustainable Development in Nigeria* (Ahmadu Bello University Press 2014) 64–68.

recognition that biodiversity is a valuable global asset for current and future generations, the reality is that the threat to species and ecosystems has never been greater.[6]

Generally, while virtually all MENA countries and stakeholders agree on the compelling need to integrate biodiversity considerations into all aspects of development planning, a lot more will need to be done to mobilize the required finances to implement such targeted biodiversity programs. The Kunming-Montreal Global Biodiversity Framework (GBF) identified that there is currently a finance gap of US$700 billion per year to be met in order to achieve biodiversity protection by 2030.[7] Similarly, a recent United Nations Environment Programme (UNEP) study noted that global investment in nature needs to increase fourfold by 2050, equating to a cumulative total investment of up to US$8.1 trillion and a future annual investment rate of US$536 billion. Forest-based solutions alone would amount to US$203 billion a year.[8] The UNEP report also stated that private finance directed to nature-based solutions must be scaled up, and companies and financial institutions must also be part of the solution by sharing the risk and committing to increase finance and investment in nature-based solutions.[9] In addition to the cost of restoring degraded ecosystems, financing is needed to provide necessary technologies, equipment, capacity development, and patrol vehicles in order to monitor compliance and deter illegal loggers and poachers. As countries seek to recover from the economic impacts of COVID-19, it is important to prioritize financial, institutional, and technological support for conservation agencies, as well as research institutions, to sustain conservation monitoring and enforcement programs.[10]

The MENA region, like other regions of the world, needs to bridge the gap in the availability of financing for nature conservation and biodiversity programs, and Islamic finance has already begun to yield results in this field. Islamic finance promotes the financing of investment activities and projects in accordance with the tenets and procedures of Shari'a law.[11] Islamic biodiversity financing therefore refers to the financing of biodiversity and nature conservation programs using Islamic financial instruments such as *sukuk* (Islamic bond). One distinguishing feature of Islamic finance, as compared to conventional financing methods, is that parties agree to abide by Qur'anic injunctions and prophetic practice in structuring the

6 Olawuyi (n 1) 245–274.

7 United Nations Environment Programme, "Kunming-Montreal Global Biodiversity Framework" www.unep.org/resources/kunming-montreal-global-biodiversity-framework accessed January 31, 2024.

8 United Nations Environment Programme, "State of Finance for Nature 2021" (2021) 6 www.unep.org/resources/state-finance-nature-2021 accessed January 31, 2024.

9 Ibid., 5.

10 Damilola Olawuyi and Elena Athwal, "Halting Biodiversity Loss and Protecting Nature: The Important Role of International Environmental Law" https://dailytrust.com/halting-biodiversity-loss-and-protecting-nature-the-important-role-of-international-environmental-law/ accessed January 31, 2024.

11 Dalal Aassouli, "Mobilizing and Leveraging Islamic Climate Finance in the MENA Region: The Potential Role of National Green Participative Banks" in D. Olawuyi (ed), *Climate Change Law and Policy in the MENA Region* (Routledge 2022).

transaction. For example, the Qur'an and Hadith prohibit the levying of interest (*riba*). Therefore, in selecting Islamic financing, parties choose to exclude *riba*.[12]

The size of the Islamic finance industry is projected to grow to US$3 trillion by the year 2030, with further growth expected in the following decade.[13] Yet the Islamic financing sector is still a niche industry, accounting for only 0.6 percent of global wealth.[14] In 2022, the Qatar Financial Centre developed a Sustainable Sukuk and Bonds Framework, the first in the Gulf Cooperation Council (GCC) region in line with Qatar's National Vision 2030 and Qatar Central Bank's strategic goal of "Developing Financial Markets and Fostering Financial Innovation."[15] Though outside of the MENA region, Malaysia also provides positive examples regarding the growth of Islamic finance in key sectors, including environmental conservation programs. In 2017, Malaysia issued the world's first sustainable and responsible investments (SRI) *sukuk*. Malaysia's Quantum Solar Park issued the largest solar project linked to green *sukuk*, which eventually powered over 90,000 homes, created over 3,000 jobs, and reduced emissions by 193,000 tons of carbon per year. Indonesia soon followed suit, issuing the first sovereign green *sukuk*, amounting to US$1.25 billion and extending its reach beyond Shari'ah investors, with 29 percent new green investors.[16] In 2017, Islamic Development Bank climate finance was estimated to be worth US$644 million.[17] According to the Islamic Finance Development Report 2022, the global Islamic finance industry outperformed pre-COVID levels with a total asset rise of 17 percent, reaching US$4 trillion.[18] These examples showcase environmental, social, and governance (ESG) aspects while demonstrating the

[12] Ibid. For example, Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) Standard No. 17 on investment *sukuk* states that "[t]he prospectus must not include any statement to the effect that the issuer of the certificate accepts the liability to compensate the owner of the certificate up to the nominal value of the certificate in situations other than torts or negligence nor that he guarantees a fixed percentage of profit" Shari'ah Standards ss. 17, at 5/1/8/7 (AAOIFI 2015) (Investment Sukuk).

[13] The Global Islamic Finance Report 2018 https://ded.ae/DED_Files/StudiesAndResearch/SGIE-Report-2018-19_Eng_1540649428.pdf accessed October 31, 2023.

[14] ADB and IsDB Joint Report, "Unlocking Islamic Climate Finance in Joint ADB and IsDB Countries" (November 2022) https://events.development.asia/materials/20221109/unlocking-islamic-climate-finance-joint-adb-and-isdb-countries accessed January 31, 2024.

[15] Qatar Financial Centre Media Release, "Qatar Financial Centre: The First in GCC to Introduce a Sustainable Framework for Sukuk and Bonds" (March 16, 2022) www.qfc.qa/en/media-centre/news/list/qatar-financial-centre-the-first-in-gcc-to-introduce-a-sustainable-framework-for-sukuk-and-bonds accessed January 31, 2024.

[16] Securities Commission Malaysia and World Bank Group, "Islamic Green Finance: Development, Ecosystem and Prospects Report, based on the Conference on Harnessing Islamic Finance for a Green Future, Held from 14 to May 15, 2018 in Kuala Lumpur" (March 2019).

[17] AfDB (African Development Bank), ADB (Asian Development Bank), EBRD (European Bank for Reconstruction and Development), EIB (European Investment Bank), IDBG (Inter-American Development Bank Group), IsDB (Islamic Development Bank), and WBG (World Bank Group) (2018), "2017 Joint Report on Multilateral Development Banks' Climate Finance."

[18] ICD and Refinitiv, "ICD-Refinitiv Islamic Finance Development Report 2022" (2022) 6 https://icd-ps.org/uploads/files/ICD%20Refinitiv%20ifdi-report-20221669878247_1582.pdf accessed January 31, 2024.

growth of Islamic finance in sustainable development. There is still room to grow, in terms of greening capital markets through *sukuk* issuances, greening social finance using *zakat*, *takaful*, and *awqaf* for climate and biodiversity programs, and as project financing for green infrastructure. According to the United Nations Development Programme (UNDP), *zakat* alone can mobilize between US$200 billion and US$1 trillion annually for the Sustainable Development Goal (SDG) agenda.[19]

Despite the growing awareness on the potential of Islamic finance as a faith-based approach to financing biodiversity projects and programs, there is a need to address legal and governance challenges that may stifle its wide application. Islamic financing requires regulatory frameworks and national pro-green financing strategies, which including standard-setting procedures and reporting, transparency, and awareness that can attract a diverse and robust investor pool. This chapter examines the role that Islamic financing can play in bridging the financing gap in biodiversity and nature conservation programs. It examines the legal framework to advance Islamic biodiversity financing in the MENA region.

The chapter proceeds in six sections. After this introductory section, Section 11.2 discusses the nature and scope of Islamic biodiversity financing. Section 11.3 makes the case for Islamic biodiversity financing. Section 11.4 analyses the legal and institutional barriers to Islamic biodiversity financing in the MENA region. Section 11.5 discusses the recommendations for addressing these barriers. Section 11.6 is the concluding section.

11.2 NATURE AND SCOPE OF ISLAMIC BIODIVERSITY FINANCING

The rise of faith-based approaches to environmental protection continues to underscore the importance of integrating Islamic principles in the design, financing, and implementation of nature conversation and biodiversity programs.[20] For example, though not legally binding, the Islamic Declaration on Climate Change of 2015 calls on Muslims worldwide to tackle "the root causes of climate change, environmental degradation and the loss of biodiversity."[21] It called upon Muslims to work to preserve the environment using Islamic principles such as *khalifa* (caretaker), with human beings as vicegerents of God on earth, responsible for all beings and the environment, and entrusted with nature to benefit society while safeguarding it from overconsumption;[22] *al-mizan* (balance) requires the equilibrium and balance

[19] AfDB et al. (n 17).
[20] Olawuyi (n 1).
[21] United Nations Climate Change, "Islamic Declaration on Global Climate Change" (2015) https://unfccc.int/news/islamic-declaration-on-climate-change accessed January 31, 2024.
[22] A. Al-Roubaie and A. M. Sarea, "Green Investment and Sustainable Development: The Case of Islamic Finance" (2019) 9 *Journal of Islamic Business and Management (JIBM)* 1, 14 https://doi.org/10.26501/jibm/2019.0901-002 accessed January 31, 2024. See also S. V. R. Nasr, "Islamic Economics: Novel Perspectives" (1989) 25 *Middle Eastern Studies* 516.

of the ecosystem,[23] highlighting the importance of respecting the environment and considering the impact of our economic activities on the environment. These Islamic values are reflected in and form the foundation of Islamic finance, which advocates leveraging Islamic tenets and financial instruments to advance the green economy.[24] The link between the conservation of land and water to belief systems has been prevalent in the MENA region historically; for example, the *hima* system, from the Arabic word "hima" meaning "a protected place" or "protected area," is a traditional system which protected areas of land to promote the sustainable use of resources that has been practiced for more than 1,400 years in the Arabian Peninsula, predating Islam, and eventually evolving to signify a reserved pasture or a piece of land set aside seasonally to allow regeneration.[25] This link is prevalent in most mainstream religions and localized belief systems.[26] It is, therefore, important to keep in mind when considering biodiversity conservation efforts and financing.[27]

The environmental philosophy of Islam relates human beings to their relationship with nature as well as God. The concepts of *khilafah* and *amānah* (custodianship and trust) derived from the Quran and Sunnah emphasize the human role as a mere steward or trustee of the earth and not a proprietor or disposer that can use the environment as it wishes,[28] making it a fundamental duty of humanity to protect and preserve nature.[29] Shari'ah then provides the practical framework within which society can fulfill the role of trustee.[30] Farook identifies several other concepts, including *adl* and *i'tidal* (justice and moderation), akin to equilibrium, requiring moderation and balance in emphasizing natural resources and preventing their undue exploitation, with accountability and belief in the day of judgment as motivators.[31] According to Ammar, Islam emphasizes respect (*ihtiram*) for nature and the use of natural resources in accordance with the trust accorded by God, requiring humans to adhere to five moral obligations, such that nature and its natural resources are: (1) used in a balanced, nonexcessive manner; (2) treated with

23 T. Al-Mubarak and B. Goud, *Environmental Impact in Islamic Finance* (RFI Foundation 2018) 1–70.

24 S. Franzoni and A. A. Allali, "Principles of Islamic Finance and Principles of Corporate Social Responsibility: What Convergence?" (2018) 10 *Sustainability (Switzerland)* 3, 1–11 https://doi.org/10.3390/su10030637 accessed February 6, 2024.

25 Odeh Al-Jayyousi, "Hima as a Model for Natural Resource Management in West Asia and North Africa" (UCN, August 11, 2010). www.iucn.org/about/work/programmes/forest/?5853/Hima-as-a-model-for-natural-resourcemanagement-in-WANA accessed February 6, 2024.

26 Liza Higgins-Zogib et al., "Beyond Belief: Linking Faiths and Protected Areas to Support Biodiversity Conservation" in Sue Stolton and Nigel Dudley (eds), *Arguments for Protected Areas: Multiple Benefits for Conservation and Use* (Earthscan 2010) 145–158.

27 Lekha Laxman et al., "The Islamic Approach to Conserving Biodiversity for Global Sustainability: An Exploration" (2014) 8 *Advances in Environmental Biology* 3, 748.

28 Quran, Surah Al-Baqarah: 30; Surah Sad: 26; Surah Al An'am: 165.

29 Olawuyi (n 1) 16. See also, Quran, Surah As Shams: 7–8; Muhammad Muinul Islam, "Towards Green Earth: An Islamic Perspective" (October–December 2004) 26 *Asian Affairs* 4, 44.

30 T. K. Farook, "Ecology in Islamic Perspective" (2012) XLVI Radiance Views Weekly 28.

31 Ibid.; Laxman et al. (n 27).

kindness (*ihsan*); (3) protected from damage and abuse; (4) shared to ensure equal access and opportunity without discrimination and corruption; and (5) subject to conservation efforts such as laws covering the conservation of forests, water bodies, and animals including Shari'ah relating to the conservation of land, such as protected zones (*haram*) and the reserves (*hima*).[32]

Islamic law also includes many universal guiding principles pertaining to protecting the environment, including the inviolability of human life, protecting animals and plants, saving land, water, and air, and protecting the balance of nature and biodiversity.[33]

11.2.1 *Principles of Islamic Finance*

To understand the Islamic moral economy system, it is important to examine two key concepts: *khilafah* (vicegerency) and *maqasid al Shari'ah* (the objectives of Islamic law).[34] The concept of *khilafah*, as mentioned earlier, is similarly foundational to the Islamic financial system. Human beings, as vicegerents on earth, have the responsibility (*amana*) to inhabit and build a civilization for the good of all humanity and the environment.[35] This intergenerational responsibility requires good governance to manage resources justly and sustainably and implies the engagement, willingness, capacity, and effort to do so.[36] This definition is in line with the World Commission on Environment and Development's definition of sustainable development that meets the needs of the present without compromising the ability of future generations to meet their own needs.[37]

Maqasid al Shari'ah (objectives of Shari'ah) refers to the divine intentions and moral concepts that Islamic law is based on, such as justice, human dignity, free will, and social cooperation.[38] The objectives of Shari'ah, according to Imam Al-Ghazali, are to promote the well-being of all humans, which lies in safeguarding their *din* (faith), *nafs* (human self/life), *'aql* (reason/intellect), *nasl* (posterity), and *mal* (wealth). Anything that ensures the safeguarding of these five serves the public interest and is deemed *maslaha* (good), while anything negatively impacting them is deemed *mafsadah* (prejudice).[39] Contemporary scholars have integrated

[32] Nawal H. Ammar, "Islam, Population and the Environment: A Textual and Juristic View" in Harold G. Coward (ed), *Population, Consumption, and the Environment: Religious and Secular Responses* (NYU Press 1995) 123–136, and 131–132.

[33] S. Sikandar Shah Haneef, "Principles of Environmental Law in Islam" (2002) 17 *Arab Law Quarterly* 3, 241.

[34] Aassouli (n 11).

[35] Haneef (n 33).

[36] Aassouli (n 11).

[37] Ibid.

[38] Ibid.

[39] A. Abozaid and A. W. Dusuki, "The Challenges of Realising Maqasid al-Shari'ah in Islamic Banking and Finance" (2007) *IIUM International Conference in Islamic Banking*, 7–8 http://iaif.ir/images/khareji/articles/other/60.pdf accessed February 6, 2024.

new objectives linked to contemporary global issues such as human life and dignity, and environmental preservation, which includes the protection of the environment against damage, pollution, and excessive use of its natural resources.[40]

In addition to striving to achieve the objectives of Shari'ah in all its activities, Islamic finance should not involve elements contrary to Shari'ah principles. According to Hanif, there are four basic principles of Islamic finance: (1) the business or project must be *halal* (permitted), precluding businesses and any income generated from prohibited businesses related to alcohol, pork, prostitution, and gambling; (2) the prohibition of *riba* (interest) in the financial agreement, as stated in the Quran and Sunnah;[41] (3) the prevention of *gharar* (uncertainty) when conducting a trade (*gharar* refers to an undetermined liability, uncertain item of payment, and ambiguous transfer of goods and services of parties involved in a transaction); nd (4) the prohibition of *myser* (gambling), unlawful wealth acquisition, or a means of obtaining wealth easily by chance, through seizing other's rights or otherwise.[42]

Islamic finance also strives to ensure that transactions are linked to real economic activities or transactions and that Islamic financial instruments emphasize risk sharing and equal profit-and-loss sharing through different means of financing, including profit-and-loss sharing partnerships (*mudarabah*), profit-and-loss sharing joint ventures (*musharakah*), and Shari'ah-compliant lending instruments (*sukuk*).[43] Risk sharing aligns with Islamic finance principles of shared responsibility and facilitates equitable distribution of gains and losses, promoting ethical financial practices.

11.3 THE CASE FOR ISLAMIC BIODIVERSITY FINANCING

The *New Nature Economy* report states that over half the world's gross domestic product depends on nature, and its ongoing loss is a systemic risk for the global economy,[44] a risk that the private sector is beginning to recognize. The impetus to advance nature conservation, both as part of responsible investment and corporate social and environmental responsibility and as a driver for sustainable prosperity, is resulting in increased investment in biodiversity. The International Finance Corporation has developed an indicative list of "investment projects, activities, and components that help protect, maintain, or enhance biodiversity and ecosystem services, as well as promote the sustainable management of natural

[40] Aassouli (n 11).
[41] Quran, Surah Ar Rum: 39, Surah An Nisa: 130, Surah Al Baqarah: 275–281.
[42] M. Hanif, "Economic Substance or Legal Form: An Evaluation of Islamic Finance Practice" (2016) 9 *International Journal of Islamic and Middle Eastern Finance and Management* 2, 295.
[43] See Nabil Saleh, "Definition and Formation of Contract under Islamic and Arab Laws" (1990) 5 *Arabic Law Quarterly* 101.
[44] United Nations Environment Programme (UNEP), "State of Financing for Nature: Report" (2021) 10 www.unep.org/resources/state-finance-nature-2021 accessed February 6, 2024.

resources."[45] Biodiversity financing and investment is therefore a rapidly growing subset of green financing which aims to increase the financing of projects aimed at halting biodiversity loss and promoting nature conservation.[46] Businesses, financial institutions, and investors are becoming increasingly aware of the how environmental damage worsens local and community resistance to investment, and they also see that biodiversity loss and environmental damage have negative material impacts on supply chains, capital flows, and employee productivity.[47] Additionally, financial institutions are exposed to reputational and transition risks when financing companies with major negative impacts on biodiversity.[48] This growing realization has seen the rise of nature-based financing and investments in many parts of the world.[49]

Despite this growth, investment in nature-based solutions lags when compared to investment in climate financing. For example, private investment accounts for 56 percent of annual capital flows of US$579 billion into climate investments, as returns to investments in renewable energy investment and energy efficiency are understood by and attractive to commercial banks, investment banks, and institutional investors.[50] However, private finance accounts for only 14 percent of nature-based solutions, US$18 billion out of US$115 billion a year, spanning capital mobilized through sustainable agricultural and forestry supply chains, private equity investments, biodiversity offsets financed by private sectors, philanthropic capital, private finance leveraged by multilateral organizations, and forest and other land use-related carbon markets.[51] Banks and investors are deterred from investment in nature-based solutions as they often lack sufficiently predictable and long-term revenue streams due to the high transaction and structuring costs that reflect their current immaturity and small scale.[52] Risk assessment techniques are mostly backward-looking and can be replaced by forward-looking, scenario-based analyses to better capture the risks associated with climate, biodiversity, and ecosystem service losses, which would help them accurately appraise risk and support high-quality investment decisions.[53] The UNEP suggests financial instruments to derisk investment, including support for result-based financing schemes such as green or

45 International Finance Corporation, Biodiversity Finance Reference Guide (2022) www.ifc.org/en/insights-reports/2022/biodiversity-finance-reference-guide accessed February 6, 2024.

46 Ibid. See also Recommendations of the Taskforce on Nature-Related Financial Disclosures (September 2023) https://tnfd.global/wp-content/uploads/2023/08/Recommendations_of_the_Taskforce_on_Nature-related_Financial_Disclosures_September_2023.pdf?v=1695118661 accessed February 6, 2024.

47 UN Global Compact, UNCTAD, UNEP FI, and UN PRI, "Private Sector Investment and Sustainable Development" (2015) www.unglobalcompact.org/library/1181 accessed February 6, 2024.

48 UNEP (n 44).

49 Ibid.

50 Ibid., 41.

51 Ibid.

52 Ibid.

53 Ibid., 37.

conservation bonds supplied by national and international development finance institutions to support green investments.[54] Islamic financing instruments can fill this gap and encourage more investment.

11.3.1 *Viability of Islamic Financing of Nature and Biodiversity*

The Islamic finance market grew globally by between 10 percent and 15 percent annually from 2000 to 2012, attracting Muslim and non-Muslim countries.[55] Shari'ah-compliant assets rose by more than 160 percent between 2009 and 2011, and in 2016, the industry held about US$1.6 trillion in banking assets concentrated in the GCC countries.[56] The Islamic Finance Development Report 2022 showed that the global Islamic finance industry demonstrated resilience and growth, outperforming pre-COVID levels with a total asset rise of 17 percent reaching US$4.0 trillion, expanding the industry's influence and size. The largest sector, Islamic banking, accounting for 70 percent of the Islamic finance industry grew by 17 percent to US$2.8 trillion, partially due to continued high demand for Islamic banking, especially from noncore Islamic finance jurisdictions, signaling the growth of new markets and the plateauing of the sector in the more mature jurisdictions.[57]

The Islamic Finance Development Indicator (IFDI) provides Islamic finance stakeholders such as governments and financial institutions with a detailed analysis of key factors driving the development and growth of the Islamic financial industry worldwide. As of 2021, the GCC sits at the top IFDI scores by region, followed by Southeast Asia, South Asia, and other MENA countries. Saudi Arabia ranks 2nd, Bahrain 4th, Kuwait 5th, the United Arab Emirates (UAE) 6th, Oman 7th, Qatar 9th, Jordan 13th, and Sudan 14th out of the 136 countries assessed.[58] The GCC and MENA regions come in first and second place when analyzing Islamic Finance Assets by Region at US$1,617 billion and US$1,300 billion, respectively.[59] Similarly, Islamic Banking Assets amount to US$1,188 billion and US$1,100 billion, respectively.[60] The reverse is true for Takaful Assets, the smallest of the Islamic finance industry, accounting for just 2 percent of total global Islamic finance assets, with other MENA countries coming in first at US$30,080 billion followed by GCC countries at US$23,597 billion.[61]

[54] Ibid., 34.
[55] Ibid.
[56] Margherita Calderone et al., "Investing in Financial Inclusion for Climate Resilience and Adaptation: The Role of Islamic Financial Services" Briefing Note for UN Climate Summit 2019 by ODI and Islamic Relief Worldwide (IRW) (May 2019) 4.
[57] ICD and Refinitiv (n 18) 6.
[58] Ibid., 11–13.
[59] Ibid., 25.
[60] Ibid., 31.
[61] Ibid., 37.

A major contributing factor to its rise and growth is its foundation in equity-based principles, namely: (1) risk sharing and profit-and-loss sharing between the provider and beneficiary of capital, making suppliers of funds investors instead of debtors; (2) asset-based transactions which link financing directly with underlying assets and "real" sector activity; (3) prohibition of interest and speculative behavior which discourages hoarding and prohibits extreme uncertainty, risk, and gambling; and (4) sanctity of contracts and preservation of property rights.[62]

The philosophies of sharing risk and linking finance to the real economy limit the amount of debt created as it cannot exceed the value of the physical asset. Barring derivative instruments for speculation would make the system comparatively resilient and stable.[63] This is evidenced by Calderone et al., quoting Beck et al., when they state that this makes Islamic banks better capitalized, have higher asset quality, and be less likely to disintermediate during crises and, hence, enjoy better stock performance during the recent financial crisis.[64] Islamic finance promotes transactions that are based on profit-and-loss sharing, which contributes to macroeconomic and financial stability.[65]

Not only is Islamic finance, with assets currently at US$2.5 trillion and expected to reach US$3.8 trillion in 2022, well placed to create instruments that drive capital toward the SDGs,[66] but also that it is a stable, less risky industry that is resilient, making it a good alternative for investors.

Regarding sustainability, MENA countries adopted sustainability guidelines through ESG disclosure, SRI, or green *sukuk*, further aligning Islamic finance with global sustainability trends. Saudi Arabia's stock exchange launched ESG disclosure guidelines in October 2021. Oman's Capital Market Authority announced it was developing *sukuk* regulations that cover SRI, including social (*waqf*), sustainable, and green *sukuk*, in July 2021. Kuwait also amended their regulations in February 2022 to introduce new types of bonds, including green and sustainable *sukuk*.[67] This shows the promising growth and development of the Islamic finance industry in the MENA region that can be galvanized to support biodiversity, with the use of Islamic financial instruments helping fill in the financial gaps needed for countries in the MENA region to advance green and sustainability projects, especially through the use of green *sukuk*.

In 2018, Indonesia successfully issued the world's first sovereign green *sukuk* worth US$1.25 billion as part of its initiative to combat climate change.[68] It raised US$2

[62] Munawar Iqbal and Philip Molyneux, *Thirty Years of Islamic Banking: History, Performance and Prospects* (Palgrave 2005).
[63] Aassouli (n 11).
[64] Calderone et al. (n 56).
[65] Aassouli (n 11) 12.
[66] ICD and Refinitiv (n 18).
[67] Ibid., 62–63.
[68] D. Siswantoro and H. V. Surya, "Indonesian Green Sukuk (Islamic Bond) of Climate Change: A Revisited Analysis" (2021) 716 *IOP Conference Series: Earth and Environmental Science* 1 https://iopscience.iop.org/article/10.1088/1755-1315/716/1/012044 accessed February 6, 2024.

billion in private investments and financed twenty-three public green and sustainable projects.[69] Since then, research has been conducted on how green *sukuk* could serve as financing to combat climate change issues.[70] Green *sukuk* has been promoted as one of the Islamic financial instruments to fulfill the sustainability gaps in achieving the SDGs,[71] as a financing tool for green projects in the wind energy sector in Italy,[72] for financing sustainable waste management projects in Indonesia,[73] as the tool to fill the financing gap for green projects to mitigate climate change and achieve SDGs in sub-Saharan Africa,[74] and to be considered along with cash *waqf* to help finance afforestation programs by Organization of Islamic Cooperation countries.[75]

Sukuk is the second-largest asset sector in the global Islamic finance industry, growing by 14 percent to US$713 billion in *sukuk* outstanding. The issuance of ESG *sukuk* has reached a new high of US$5.3 billion, led by Saudi Arabia, and continued growth is expected with the mainstreaming of ESG investments and the strong GCC demand to use *sukuk* to help fund green and sustainability transition projects. *Sukuk* issuance in Saudi Arabia grew by 31 percent, from US$38 billion in 2020 to US$49.9 billion in 2021. Malaysia, a more mature *sukuk* market, grew by 11 percent over the same period.[76]

Other studies also support other tools, such as the role of *zakat* in supporting green economic growth in Malaysia.[77] Redistributive systems such as *zakat* (obligatory donations), *sadaqah* (voluntary donations or charity), and *waqf* (endowments on property made to religious, educational, or charitable causes) are all viable tools for Islamic social financing for environmental protection. The UNDP and the Islamic

69 Greget Kala Buana and Muhammad Didi Hardiana, "Islamic Finance's Answer to SDGs and Climate Change" (July 3, 2019) www.undp.org/blog/islamic-finances-answer-sdgs-and-climate-change accessed February 6, 2024.

70 Al-Roubaie and Sarea (n 22).

71 T. Khan, "Reforming Islamic Finance for Achieving Sustainable Development Goals" (2019) 32 *Journal of King Abdulaziz University, Islamic Economics* 1, 3 https://marz.kau.edu.sa/Files/320/Researches/72810_45967.pdf accessed February 6, 2024.

72 D. Campisi, S. Gitto, and D. Morea, "Shari'ah-Compliant Finance: A Possible Novel Paradigm for Green Economy Investments in Italy" (2018) 10 *Sustainability (Switzerland)* 11, 1 https://doi.org/10.3390/su10113915 accessed February 6, 2024.

73 H. F. Hariyani and H. Kusuma, "Green Sukuk-Based Project on Sustainable Waste Management in Indonesia" (2020) 12 *Al-Iqtishad: Jurnal Ilmu Ekonomi Syariah* 2, 165 https://doi.org/10.15408/aiq.v12i2.15129 accessed February 6, 2024.

74 Aassouli (n 11).

75 S. I. Abdullahi, "Financing Afforestation in the Organization of Islamic Cooperation Countries: What Role for Islamic Economics and Finance?" (2020) 32 *JKAU: Islamic Econ* 2, 161 www.researchgate.net/publication/339791255_Financing_Afforestation_in_the_Organization_of_Islamic_Cooperation_Countries_What_Role_for_Islamic_Economics_and_Finance accessed February 6, 2024.

76 ICD and Refinitiv (n 18) 6, 46.

77 N. A. Hamid, R. Muda, M. M. Alam, N. Omar, and F. A. A. Nadzri, "Contribution of Islamic Social Capital on Green Economic Growth in Malaysia" (2019) 9 *International Journal of Business and Management Science* 2, 239.

Development Bank (IsDB) estimated that *zakat* alone could help mobilize US$200 billion to US$1 trillion annually for the SDG agenda.[78] The Organisation for Economic Co-operation and Development cites estimates of *awqaf* assets between US$410 billion and US$3 trillion, with an estimated return of US$150 billion annually.[79] These can potentially be used to finance SDGs and CBD and GBF targets.

Article 20 of the CBD committed developed countries to provide new and additional financial resources to meet the costs of implementing measures that fulfill their obligations to the convention.[80] Although higher levels of resources do not always guarantee higher levels of conservation or sustainable use of biodiversity, research shows that, on average, more resources allocated to biodiversity activities are associated with reduced biodiversity loss.[81]

Financial inclusion strategies can ensure that low-income earners, individual producers, women's collectives, and small and medium-sized enterprises (SMEs), especially those active in arid and semi-arid lands, can access and use formal financial services. Expanding financial inclusion is often seen as a philanthropic activity rather than a business enterprise; for example, in the context of Islamic microfinance, there is a tendency to view *zakat* as the only appropriate source of funding, but charity is not necessarily the best model for developing larger and more reliable commercially motivated streams of funding.[82] These include Islamic microfinance solutions such as *qard hassan* (interest-free loans), *ijara* (leasing), and *takaful* (mutual guaranteed insurance), cooperative models such as mutual insurance based on a group of participants donating funds into a pool that members can then use in the event of specified unfavorable circumstances and expand investment opportunities and reach. The IsDB recognized this and called on experts in Islamic finance to develop new semiformal Islamic microfinance products for entrepreneurs and SMEs.[83]

Countries in the MENA region can look to Indonesia as an example of how complementary different forms of Islamic finance can be, where *zakat*, Islamic microfinance, and *waqf* can uplift people from poverty. At the same time, *sukuk* can unlock investment to promote inclusive and sustainable economic growth.[84]

78 UNDP and Baznas, "Unlocking the Potential of Zakat and Other Forms of Islamic Finance to Achieve the SDGs in Indonesia" (2018) www.undp.org/indonesia/publications/unlocking-potential-zakat-and-other-forms-islamic-finance-achieve-sdgs-indonesia accessed February 6, 2024.

79 Organisation for Economic Co-operation and Development (OECD), "How Islamic Finance Can Help Achieve the Sustainable Development Goals" (OECD 2020) OECD Development Cooperation Policy Papers, 30.

80 Article 20. Financial Resources, Convention on Biological Diversity www.cbd.int/convention/articles/?a=cbd-20 accessed February 6, 2024.

81 Convention on Biological Diversity, "Estimation of Resources Needed for Implementing the Post-2020 Global Biodiversity Framework" preliminary second report of the Panel of Experts on Resource Mobilization, Subsidiary Body on Implementation (June 18, 2020) CBD/SBI/3/5/Add.2 www.cbd.int/doc/c/c3f7/163d/b1f2c136506037842cebc521/sbi-03-05-add2-en.pdf accessed February 6, 2024.

82 Calderone et al. (n.56).

83 Ibid.

84 Buana and Hardiana (n 69).

11.4 LEGAL AND INSTITUTIONAL BARRIERS TO ISLAMIC BIODIVERSITY FINANCING IN THE MENA REGION

Although Islamic finance is one of the fastest-growing emerging global financial markets, it has yet to reach its true potential. In Muslim-majority countries, financial inclusion rates, such as the proportion of the population having borrowed from a bank, are approximately 24 percent below that of non-Muslim countries.[85] Across the MENA region, many disadvantaged Muslims have limited or no access to formal financial systems, either conventional or Islamic. Countries in the MENA region also underperform in access to SME lending relative to countries with similar gross domestic product.[86] Thus, despite the growing awareness of the potential of an Islamic finance approach to financing environmental projects and biodiversity programs specifically, several legal and governance challenges hinder its application in the MENA region.

The section outlines the key legal and institutional barriers to applying Islamic biodiversity financing in the MENA region.

11.4.1 *Lack of Standardized Green Islamic Finance Legislation and Policies*

One of the most significant barriers to the widescale adoption of Islamic green finance is the absence of clear and standardized legal frameworks and policies that tackle the unique nature and risks of the Islamic finance industry.[87] Islamic banks face unique risks that challenge their legal and regulatory frameworks. The industry has two key standard-setters: the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) for Shari'ah accounting and auditing standards and the Islamic Financial Services Board (IFSB) for regulatory and supervisory standards.[88]

The application of these standards, however, is not uniform across countries. A recent International Monetary Fund survey shows that, to date, standards set

[85] D. Karlan, A. Osman, and N. Shammout, "To Borrow or Not to Borrow: Religious Norms and the Elasticity of Demand for Credit" Working Paper (February 2017) Poverty Action Lab www.povertyactionlab.org/sites/default/files/research-paper/4267_To-Borrow-or-Not-to-Borrow_Osman-et.al_.Feb%202017pdf.pdf accessed February 6, 2024.

[86] D. Pearce, "Financial Inclusion in the Middle East and North Africa: Analysis and Roadmap Recommendations" (World Bank 2010) Financial Flagship www.findevgateway.org/library/financial-inclusion-middle-east-and-north-africa-analysis-and-roadmap-recommendations accessed February 6 , 2024.

[87] See Aassouli (n 11).

[88] International Monetary Fund, "Islamic Finance: Opportunities, Challenges, and Policy Options" (April 2015) IMF Staff Discussion Note SDN 15/05, 17.

by the AAOIFI and the IFSB are applied in only a limited number of countries. Of the twenty-nine countries surveyed, eight apply AAOIFI accounting standards and six apply IFSB standards regarding risk management. The lack of consistent application of AAOIFI and IFSB standards, especially in countries where Islamic banks are active, risks undermining transparency and creates scope for "regulatory arbitrage." Increased regulatory clarity in banking laws and regulations and enhanced dialogue between Islamic standard-setters and national regulators are needed.[89]

There is also a wide range of approaches regarding the regulatory framework for Islamic banking. Saudi Arabia and the United Arab Emirates indicated that a single integrated regulatory framework applied to all banks, with no reference to Islamic banking or Islamic banks; Jordan and Qatar noted that a single integrated regulatory framework applied to all banks, with references identifying provisions applying only to Islamic banking; Bahrain, Iraq, and Kuwait pointed out that there were two separate independent regulatory frameworks, one for Islamic banking and another for conventional banking; and Lebanon and Syria indicated the existence of a mixed approach, with a similar regulatory framework adopted for areas that apply to Islamic and conventional banks but separate guidelines and regulations issued for areas that are specific to Islamic banking.[90]

Cross-border operations have expanded without regulatory harmonization, and these developments indicate a need for increased regulatory clarity and harmonization, closer cooperation between Islamic and conventional financial standard-setters, and further enhancement of tools for adequate supervision.[91] Regulators also do not always have the capacity or willingness to ensure Shari'ah compliance, undermining the consistency of approaches within and across borders. Greater harmonization should be sought across and within countries, including through better implementation of existing standards for Shari'ah governance and possibly by establishing central boards at the national level.[92]

For Islamic green financing to be successful, robust, standardized, and comprehensive, environmental laws and policies need to be in place. Given the growth rate of Islamic financing in the MENA region and its increasing importance, governments need to provide supportive legal and regulatory frameworks to accelerate the recognition, financing, and implementation of Islamic green financing. Fast-tracking the adoption of robust environmental standards, climate change legislation, and renewable energy policies could open up green investment, which will not only achieve environmental objectives but could also stimulate social and economic co-benefits and progress.

89 Ibid.
90 Ibid., 18.
91 Ibid., 6.
92 Ibid.

11.4.2 *Gaps in the Shari'ah Governance Framework and Challenges in Implementation*

Despite efforts to set Islamic finance standards, in many countries, the industry is governed by a regulatory and supervisory framework developed for conventional finance that does not fully consider the unique nature of Islamic finance.[93] The industry also operates in an environment where legal and tax rules, financial infrastructure, and access to financial safety nets are either absent or, if available, do not adequately consider the unique characteristics of Islamic finance.[94]

There is also a lack of a clear and detailed contractual framework that allocates risks.[95] Given that the application of Islamic financing for green and SDG-linked projects is still in the early stages of development, clear and detailed information on how risks, returns, and responsibilities will be allocated are yet to emerge comprehensively, which could deter investors.

The issuance of *sukuk*, for example, in many countries takes place without a comprehensive strategy to develop the domestic market. Richardson, in his comparative study of responsible *sukuk*, including green *sukuk*, showed some of the challenges faced, such as those experienced by the UAE in promoting green *sukuk* due to a lack of practical actions, internal sustainability programs, and legal and guidance frameworks.[96] National authorities should develop the necessary infrastructure, enhance clarity over investors' rights, and provide a benchmark for the private sector.[97]

Insufficient guidelines on standard operating procedures and templates, and unclear Shari'ah audit requirements, among other things, also raise concerns about the consistency and effectiveness of the Shari'ah governance process across Islamic financial institutions (IFIs), as it leaves room for interpretation and variation in the implementation of Shari'ah compliance measures, leading to discrepancies and challenges in ensuring uniform processes and standards of compliance within the industry, promoting adherence to best practices, and ensuring that IFIs are well equipped to meet Shari'ah governance requirements effectively.

Calderone et al. list several other challenges, especially when expanding Islamic financial services. They include a lack of regulatory clarity, outdated credit assessment techniques, lack of systemic market analysis, the absence of risk-based client identification and eligibility criteria, weak customer protection, low investment in developing financial skills and capabilities, and efforts in building trust in product authenticity.[98]

93 Ibid., 8.
94 Ibid.
95 E. Richardson, "The UAE and Responsible Finance: Can Responsible Finance *Sukūk* Help the UAE in Fulfilling Its Sustainability Ambitions?" (2020) 34 *Arab Law Quarterly* 4, 313 https://doi.org/10.1163/15730255-BJA10013 accessed February 6, 2024.
96 Ibid.
97 IMF (n 88) 7.
98 Calderone et al. (n 56).

AAOIFI issues standards on the Shari'ah Governance of Islamic Finance Institutions regarding responsibility, transparency, and adherence to Shari'ah standards. These are essential for building public trust in the integrity and sanctity of IFIs' business practices.[99] However, studies have shown gaps in Shari'ah governance frameworks and challenges regarding their implementation.

Transparency and accountability mechanisms also need to be tightened. A survey by Hasan found that among IFIs, only 23 percent in the GCC properly examined the Shari'ah Board's performance and contribution to Shari'ah compliance issues. This highlights a deficiency in governance practice, as regular evaluation of Shari'ah Board members' performance is essential to maintain competence and prevent conflicts of interest.[100] Independence is another major factor. Farook and Farooq concluded that appointing scholars by management or shareholders of Islamic banks and financial institutions and their remuneration by the same entities raises concerns about conflicts of interest.[101]

Studies which have evaluated the socially responsible performance of IFIs also highlighted the concern of IFIs with being only focused on Shari'ah compliance rather than being proactive in becoming socially responsible and impactful.[102] This has translated into lagging behind global ESG initiatives by not becoming signatories to principles such as the Equator Principles, UN Principles for Responsible Investment, and the Global Reporting Initiative.[103] Furthermore, they are lagging behind SRI practices in their corporate social reporting policies. Many financial institutions returned weak reporting scores; however, Oman, Bahrain, and Kuwait are generally making good strides for the GCC and MENA regions.[104]

11.4.3 *Capacity Gaps*

A lack of capacity and competency is one of the biggest issues. Although research by Hassan et al. conducted in Saudi Arabia demonstrated that respondent's knowledge and application of the Shari'ah Governance Framework's goals was strong,[105] this is

99 A. Hassan, M. Sadiq Sohail, and M. M. R. Munshi, "Shariʿah Governance and Agency: Dynamics of Islamic Banking Operations in the Kingdom of Saudi Arabia" (2022) 14 *ISRA International Journal of Islamic Finance* 1, 89.

100 Z. Hasan, "A Survey on Shari'ah Governance Practices in Malaysia, GCC Countries and the UK" (2011) 4 *International Journal of Islamic and Middle Eastern Finance and Management* 1, 30.

101 S. Z. Farook and M. O. Farooq, "Shariah Governance, Expertise and Profession: Educational Challenges in Islamic Finance" (2013) 5 *ISRA International Journal of Islamic Finance* 1, 137.

102 S. Sairally, "Evaluating the Corporate Social Performance of Islamic Financial Institutions: An Empirical Study" (2013) 6 *International Journal of Islamic and Middle Eastern Finance and Management* 3, 238.

103 S. Sairally, "Integrating Environmental, Social and Governance (ESG) Factors in Islamic Finance: Towards the Realisation of Maqāṣid Al-Sharīʿah" (2015) 7 *ISRA International Journal of Islamic Finance* 2, 145, 151.

104 ICD and Refinitiv (n 18) 7.

105 Hassan et al. (n 99).

not the case for other MENA states. A study in Oman showed that the Central Bank of Oman was more lenient in appointing Shari'ah Supervisory Board members due to a limited number of experts.[106]

To successfully navigate the entire project chain of an Islamic green-financed project requires skill and sophistication. To promote Islamic green financing, it is vital to strengthen the capacity of IFIs in core areas of green technology, SDGs, and environmental law. It can be improved in many countries through tailored capacity development programs. Financial institutions can also improve their internal capacity by employing environmental lawyers and practitioners trained to assess legal risks across the entire value chain of environmental and biodiversity projects.[107]

11.4.4 *Shari'ah Compliance Concerns*

The absence of a clear operational framework for all financial intermediaries in the early days of Islamic finance was deeply challenging. While developing models, Islamic finance experts adopted the "replication approach," integrating Shari'ah elements into conventional financial products and eliminating non-compliant aspects.[108] Although this approach facilitated the industry's growth, it now faces criticism for not fully embodying Islamic finance's true spirit and objectives.[109]

The director of the Durham Centre for Islamic Economics and Finance highlighted the growing concerns with norms in the Islamic finance industry moving closer to conventional finance. He states that pursuing perceived benefits using *maslahah* (public interest) has led to a convergence of Islamic finance with mainstream, conventional banking practices resulting in questions regarding the essence versus the form of Islamic finance.[110]

Maslahah has been employed in controversial practices such as organized *tawarruq* (financing option involving purchasing items on credit and selling to a third party for cash), as it is believed that stakeholders, including Muslims, are not only looking for Shari'ah compliance but also pricing parity and would shift to conventional finance if they did not have access to products that offer competitive

[106] Abdulrahman Alnofli and Engku Rabiah Adawiah Engku Ali, "Perceptions on Shariah Governance Framework of Islamic Banking in Oman: Issues and Challenges" (2019) 3 *International Journal of Fiqh and Usul Al-Fiqh Studies* 2, 106.

[107] Aassouli (n 11).

[108] Hanif (n 42).

[109] M. Laldin and H. Furqani, "Innovation versus Replication: Some Notes on the Approaches in Defining *Shari'ah* Compliance in Islamic Finance" (2016) 54 *Al-Jami'ah: Journal of Islamic Studies* 2, 249 https://doi.org/10.14421/ajis.2016.542.249-272 accessed February 6, 2024.

[110] Islamic Economic Talk by Professor Dr Mehmet Asutay (August 30, 2019) https://fem.usim.edu.my/sharing-session-by-professor-mehmet-asutay/ accessed February 6, 2024.

pricing compared to conventional alternatives.[111] Some concerns around *tawarruq* lead to an industry heavily reliant on debt-based financing contracts rather than equity-based financing through real economic activities and risk sharing among parties involved.[112] *Tawarruq* currently holds a dominant position in the Islamic finance market in Malaysia despite being banned by scholars from the GCC due to its resemblance to interest-based loans.

Rosly echoed these sentiments, stating that this convergence raises concerns about whether the industry has maintained its distinctiveness in substance or merely in appearance, especially considering instruments such as *tawarruq*, which have started to resemble interest-bearing loans, blurring the lines between Islamic and conventional banking.[113] Kamali also asserts that due to numerous transformations and the industry's increasing resemblance to conventional products, Islamic finance is facing a significant challenge in terms of losing its stakeholders' credibility and confidence. This erosion of confidence may result from the industry's deviation from its original values, spirit, and objectives.[114]

Hence, it becomes imperative to critically assess the extent of similarities between Islamic finance and its conventional counterpart. While Islamic finance initially aimed to not only fulfill economic needs but also provide a moral and ethical alternative to conventional finance, the evolving landscape and practices within the industry warrant careful consideration and reflection on its alignment with these founding principles.

11.5 UNLOCKING THE FULL POTENTIAL OF ISLAMIC BIODIVERSITY FINANCING: RECOMMENDATIONS

Achieving the goal of advancing nature and biodiversity in the MENA region through Islamic financing requires the commitment of governments across the MENA region to address the legal and regulatory gaps and limitations noted in this chapter through a good governance approach to Islamic green financing. This entails comprehensively mainstreaming Islamic law principles into environmental legislation, policies, programs, budgets, and funds. It also recognizes the importance of incentivizing financial institutions and private sector investors to increase their participation in Shari'ah-compliant financing for biodiversity.[115]

[111] R. Haneef, "Is the Ban on 'Organised *Tawarruq*' the Tip of the Iceberg?" (International Shari'ah Research Academy for Islamic Finance 2009) research paper No 2/2009 https://ifikr.isra.my/library/pub/162 accessed February 6, 2024.

[112] Abozaid and Dusuki (n 39).

[113] S. A. Rosly, "Islamic Finance Practices: Danger of Convergence" (*Wahed: Global Halal Investing Journal* January 30, 2019) https://inceif.edu.my/kmimpact/2019/03/05/islamic-finance-practices-danger-of-convergence/ accessed February 6, 2024.

[114] M. H. Kamali, "Ethics and Finance: Perspective of the *Shari'ah* and Its Higher Objectives (Maqasid)" (2012) 3 *Islam and Civilization Renewal* 4 https://icrjournal.org/index.php/icr/article/view/508 accessed February 6, 2024.

[115] Aassouli (n 11).

First, national authorities in MENA countries need to accelerate the standardization of Islamic financial law through clear legislation that clarifies and addresses legal contentions and ambiguities. Comprehensive standards and frameworks should be produced in collaboration with regulatory bodies and the government to formulate robust Shari'ah governance regulations, promoting the stability and growth of the Islamic finance industry. These should include standard operating procedures and streamlined reporting and governance processes to facilitate consistency and expedite regulatory assessments, as well as audits and reporting and impact monitoring and assessment tools that will enhance accountability, the credibility of green *sukuk* issuances, and stakeholder protection. Long-term investors prefer legal, tax, and regulatory clarity and well-established market infrastructures.[116] Impact assessment, measurement, and transparency increase investors' confidence about the sustainability impact of the instruments they invest in. Developing environmental and social impact indicators can increase the transparency of green *sukuk* and, therefore, attract a broader base of ethical investors.

Establishing a "coalition of the willing" for Islamic financial services, which promotes the links between the biodiversity arena and the Islamic finance sector in key policy and industry forums, would bring together "conventional" climate and disaster risk financing players and donors with Islamic finance actors to facilitate knowledge exchange and learning. For example, insights gained from successful green bond projects could inform decision-makers developing green *sukuk*. This initiative should also raise awareness and promote research to identify best practices that adhere to Shari'ah principles and knowledge management and sharing.[117]

Second, the knowledge gap and lack of qualified human resources should be addressed through continuous training programs to enhance competency, foster awareness, and contribute to a shift in the institutions' overall mindset from Shari'ah committee members, boards, and management teams to lawyers and civil servants. Efforts should be made to the enhance market awareness of both customers and IFIs about Shari'ah compliance and Islamic financial tools. Awareness campaigns and educational initiatives can play a pivotal role in achieving this objective, as well as promoting sustainable behavior and societal accountability by engaging investors, financial institutions, public institutions, and civil society on sustainable development issues.[118]

Third, given that Islamic green financing is newly developing across MENA countries, regional interaction and knowledge sharing between countries with experience and practice can promote expertise on how Islamic green financing can best preserve biodiversity. GCC countries who have taken the lead with green *sukuk* can share their experience with North African countries who have just begun exploring

[116] Ibid.
[117] Calderone et al. (n 56).
[118] Aassouli (n 11).

them.[119] Policymakers can focus on three main objectives: maintaining financial stability, meeting nature and biodiversity finance needs, and promoting Islamic financing through cooperation and knowledge sharing within the MENA network, and also with other Islamic countries such as Malaysia and Indonesia, which are leading in the field. Rather than replicating conventional financial products, a regional knowledge-sharing platform could help tackle the common challenges and identify the best approaches in designing and implementing green *sukuk* and other Shari'ah-compliant financing initiatives.[120]

11.6 CONCLUSION

Biological resources play a critical role in advancing human society and its economic progress, and biodiversity conservation is vital. The reality is that the threat to species and ecosystems has never been greater, especially in the MENA region, and this drastic decline puts into perspective the importance of achieving targets and finding the means to finance them. The MENA region can bridge this financing gap by maximizing the full value of Islamic finance.

Rooted in the principles of *khilafah* and *maqasid al Shari'ah*, Islamic values and biodiversity goals are aligned in intergenerationally protecting our nature and biodiversity. Islamic finance promotes wealth redistribution, and social equality promotes stable and resilient investment opportunities that include profit-and-loss and risk sharing, making it not only a viable approach to financing biodiversity but one that can attract private investment due to its low-risk nature.

This shows promising growth and development of the Islamic finance industry in the MENA region that can be galvanized to support biodiversity with the use of Islamic financial instruments such as green *sukuk*, *zakat*, *waqf*, and *takaful* to advance green and sustainability projects, with room for development in terms of financial inclusion strategies that can ensure that low-income earners, individual producers, women's collectives, and SMEs also have access to financial services.

To achieve the goal of advancing nature and biodiversity in the MENA region through Islamic financing, commitments from governments across the MENA region are needed to address the legal and regulatory gaps and limitations through a good governance approach to Islamic green financing. National authorities in MENA countries need to accelerate the standardization of Islamic financial law through clear legislation, comprehensive standards, and frameworks that allow for the promotion, stability, and growth of the Islamic finance industry. Knowledge-sharing initiatives, especially regional ones, should promote research, expertise, and best practices on how Islamic green financing can best preserve biodiversity. Efforts should be made to enhance market awareness of both customers and IFIs about

[119] Ibid.
[120] Ibid.

Shari'ah compliance and Islamic financial tools, promoting sustainable behavior and societal accountability and increasing investor confidence.

Islamic financing provides viable opportunities for countries in the MENA region to attract investment from the private sector to fill the financing gap to fund efforts to halt the erosion of biodiversity in the MENA region. As Islamic finance becomes more prevalent, and laws become more standardized and harmonized, this could lead to real sustainable change and protection of one of the most vulnerable natural environments.