



QNDCC 2023 White Paper

Green and Sustainable Finance

December 4, 2023



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About Earthna

Earthna Center for a Sustainable Future (Earthna) is a non-profit policy, research, and advocacy organization, established by Qatar Foundation to promote and enable a coordinated approach to environmental, social, and economic sustainability and prosperity.

Earthna is a facilitator of sustainability efforts and action in Qatar and other hot and arid countries, focusing on sustainability frameworks, circular economies, energy transition, climate change, biodiversity and ecosystems, cities and the built environment, and education, ethics, and faith. By bringing together technical experts, academia, government and non-government organizations, businesses and civil society, Earthna fosters collaboration, innovation, and positive change.

Using their home – Education City – as a testbed, Earthna develops and trials sustainable solutions and evidence-based policies for Qatar and hot and arid regions. The organization is committed to combining modern thinking with traditional knowledge, contributing to the well-being of society by creating a legacy of sustainability within a thriving natural environment.

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Executive Summary

Drawn from Qatar National Dialogue on Climate Change (QNDC) held in October of 2023, this paper's findings and analysis synthesize insights from the panel session "Green and Sustainable Finance – Products and Investments" and supplementary research. The paper highlights the significant role green and sustainable finance plays in addressing the urgent and complex challenge of climate change, presenting outcomes and recommendations essential for enhancing Qatar's national sustainability goals and fostering local and regional initiatives.

The first section of the paper provides a comprehensive overview of the global landscape of green and sustainable finance, emphasizing key milestones such as the World Bank's introduction of Green Bonds in 2008 and the substantial investments in green and sustainable bonds in the Gulf Cooperation Council (GCC) region. Notably, there is a significant rise in green bonds in Asian countries, with China's green bond issuance reaching \$104 billion and the Republic of Korea issuing a sustainable bond valued at \$500 million. Europe's initiatives like the French energy giant EDF issuing \$1.9 billion green bond for financing sustainable projects, and the GCC's commitment to sustainable investments by issuing green bonds and Sukuk, with a total value surpassing \$8.5 billion in 2022, underscore a global paradigm shift towards environmentally responsible finance.

The subsequent sections focus on specific regional contexts, spotlighting Qatar's journey into sustainable finance and its current emerging position. Notable milestones include Qatar National Bank's (QNB) issuance of Qatar's inaugural green bond in 2020 and the collaborative efforts of financial institutions like Qatar Development Bank (QDB) and Dukhan Bank in fostering sustainable projects. Qatar's alignment with Socially Responsible Investing (SRI), heightened Environmental, Social, and Governance (ESG) awareness, and integration of Islamic finance principles further solidify its leadership in the field.

The paper then delves into the challenges faced by the global community in advancing green and sustainable finance. Issues such as limited insurance coverage, dependence on conventional energy resources, data and capacity gaps, regulatory challenges, and the lack of government incentives and strategies are identified. This is followed by recommendations, which emphasize collaborative efforts, policy innovation, and financial institution engagement to overcome these challenges.

The final section synthesizes these recommendations into a cohesive strategy for addressing key challenges. It underlines the importance of collaboration between

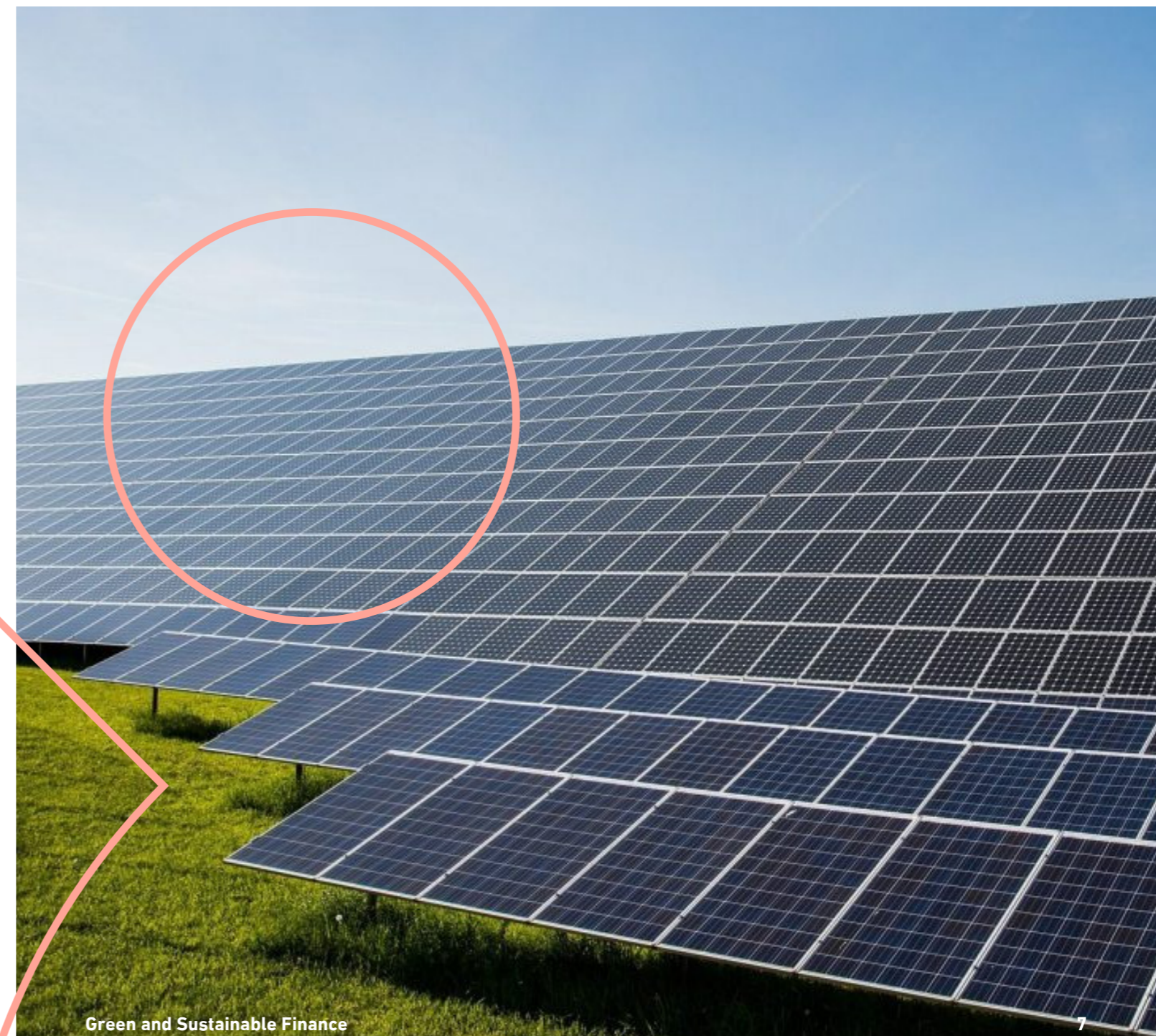
governments, financial institutions, private investors, and regulatory bodies. Policymakers are encouraged to intervene directly in the real economy, providing subsidies, taxes, or state guarantees to foster green investment. The collaboration between private investors, financial institutions, and governments is highlighted as essential to incentivize green finance and align policies with sustainable objectives. Additionally, prioritizing the development of taxonomies and standards, addressing regulatory gaps through global collaboration, and integrating ESG principles into organizational culture are emphasized for a comprehensive and effective approach.

The paper recognizes the transformative potential of green and sustainable finance, positioning it as a crucial driver for global environmental responsibility. Qatar's commitment to these principles, aligned with international trends and standards, signifies its role as a leader in the pursuit of a sustainable and resilient future. The ongoing dialogue, exploration of opportunities, and adaptive measures showcased in the wake of global challenges reinforce Qatar's dedication to driving its sustainability agenda forward, guided by the Qatar National Vision 2030 (QNV 2030).

Scope and Methodology

The scope of this research analysis covers the topics discussed in the panel session "Green and Sustainable Finance – Products and Investment" on the second day of the QNDC, in addition to supplementary research to substantiate the session's key findings and produce optimally relevant recommendations. The findings can be utilized to enhance Qatar's national sustainability goals and develop relevant local and regional sustainability

initiatives. The methodology followed for data collection includes preliminary academic research, on-site session note-taking, and post-session supplementary research and benchmarking. Based on these detailed insights, this White Paper provides a set of general and Qatar-specific recommendations to support the implementation of Green and Sustainable Finance to address climate change.



Climate change, a persistent challenge since the 19th century, has escalated, leading to a surge in natural disasters, extreme weather events, and environmental degradation. The impacts, ranging from the melting Arctic to economic and supply chain disruptions, highlight the urgency of addressing this global crisis. As the costs of addressing climate change rise, there has been a significant shift towards green and sustainable finance, directing investments into eco-friendly initiatives. This shift is not solely driven by the need to address rising costs; rather, it reflects a deliberate and proactive strategy by the financial sector to actively contribute to environmental and social well-being. Standard Chartered outlines the evolution of sustainable finance, indicating a substantial change in industry attitudes over the past two decades.¹ Initially centered on economic development and wealth creation, the finance sector's response became more proactive due to increased global awareness of environmental and social challenges.

As a starting point, it is crucial to establish a shared definition for green and sustainable finance. Green and sustainable finance involves integrating ESG factors into investment decisions within the financial sector. This approach aims to foster long-term investments in economically sustainable activities and projects. Environmental considerations encompass actions addressing climate change, biodiversity preservation, pollution prevention, and the circular economy. Social aspects involve tackling issues such as inequality, inclusiveness, labor relations, investment in people and communities, and upholding human rights. Governance, both in public and private institutions, is crucial for ensuring that decision-making processes prioritize and include social and environmental considerations.² Overall, green and sustainable finance seeks to align financial activities with principles that contribute to a more environmentally friendly, socially responsible, and well-governed global economy.

¹ Simon Cooper, "The evolution of sustainable finance," Standard Charter, February 5, 2019. <https://www.sc.com/en/feature/the-evolution-of-sustainable-finance/>

² European Commission, "Overview of Sustainable Finance,". https://finance.ec.europa.eu/sustainable-finance/overview-sustainable-finance_en

³ The World Bank, "From Evolution to Revolution: 10 Years of Green Bonds," November 27, 2018. <https://www.worldbank.org/en/news/feature/2018/11/27/from-evolution-to-revolution-10-years-of-green-bonds>

⁴ European Commission, "2050 long-term strategy,". https://climate.ec.europa.eu/eu-action/climate-strategies-targets/2050-long-term-strategy_en#:~:text=The%20EU%20aims%20to%20be,action%20under%20the%20Paris%20Agreement%20

⁵ European Commission, "International climate finance,". https://climate.ec.europa.eu/eu-action/international-action-climate-change/international-climate-finance_en#:~:text=Under%20the%20Paris%20Agreement%20%2C%20multiple,our%20long%2Dterm%20climate%20goals

⁶ European Commission, "Briefing How the EU Budget Is Spent December 2018 Guarantee Fund for External Actions," 2018. [https://www.europarl.europa.eu/RegData/etudes/BRIE/2018/630338/EPRS_BRI\(2018\)630338_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2018/630338/EPRS_BRI(2018)630338_EN.pdf)

In 2008, the World Bank introduced the pioneering green bond, marking a turning point in sustainable finance. Since then, the World Bank has successfully raised around \$13 billion through over 150 green bonds across 20 currencies, attracting institutional and retail investors globally.³ The momentum generated by the World Bank has transcended beyond its borders, with regions and countries worldwide embracing the concept and issuing their own green bonds and sustainable financial products and investments. The European Union (EU) is leveraging green and sustainable financial products to achieve its ambitious goal of net-zero greenhouse gas (GHG) emissions by 2050.⁴ To achieve this initiative, the European Fund for Sustainable Development Plus (EFSD+) has been established. EFSD+ operates as part of the EU's broader investment framework for countries inside and outside the EU, facilitating comprehensive support through guarantees, blending of grants and commercial bank loans, and technical assistance.⁵ This initiative mobilizes financial resources from the private sector to promote sustainable and inclusive development, focusing on areas such as decent job creation, public and private infrastructure enhancement, renewable energy, sustainable agriculture, and support for the digital economy. A broader investment framework, such as the External Action Guarantee provided by the Guarantee Fund for External Actions (GFEA), was created to support loans and loan guarantees granted to non-EU countries or for projects in non-EU countries. Its primary objectives include protecting the EU budget against associated risks, promoting growth and job creation, improving the business environment in developing countries, and strengthening the involvement of the private sector.⁶ This initiative aims to mobilize \$219 billion in investment from the private sector by 2027.⁷

Similarly, the GCC region is increasingly integrating sustainable finance principles into its financial systems, with over \$8.5 billion invested in green and sustainable bonds and Sukuk in 2022.⁸ Projections indicate that the global green bond market could reach \$2.36 trillion by the end of 2023, with the USA, France, and China leading this financial shift.⁹ The increasing prominence of green and sustainable finance is not merely a financial trend but a strategic driver enabling countries to fulfill their environmental commitments. This surge in sustainable finance globally signifies a growing awareness of the essential role financial instruments play in mitigating climate change, both on the international and national fronts. As the global green bond market is projected to experience exponential growth, it highlights the mainstreaming of sustainable finance. During the QNDCC panel on Green and Sustainable Finance, Ms. Sarya Kudsi - Regional Sustainability Director at Crédit Agricole CIB - emphasized green bonds as an effective way to communicate sustainability goals to investors and underscored the collaborative power of green loans, a more novel financing option. As the world progresses, green

⁷ Ibid.

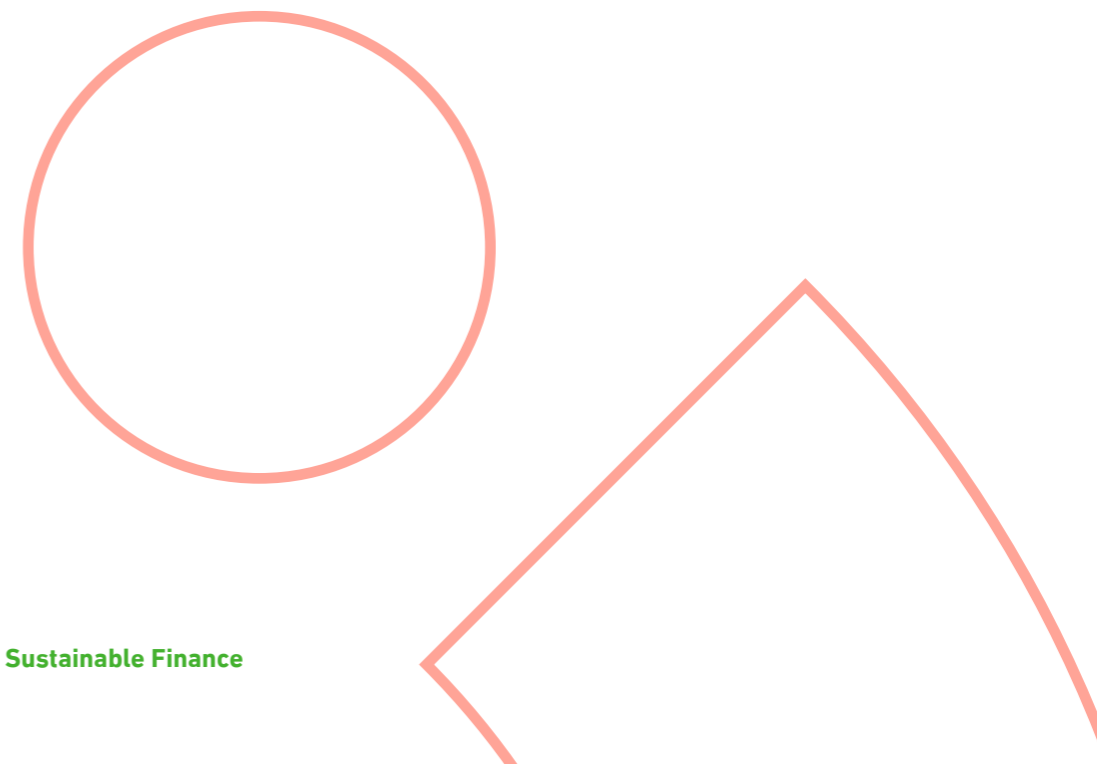
⁸ PwC, "Opportunities for the GCC to Strengthen the Sustainable Finance," September 14, 2023. <https://www.pwc.com/m1/en/publications/opportunities-for-the-gcc-to-strengthen-the-sustainable-finance-ecosystem.html>

⁹ Sean Fleming, "What is Green Finance?," World Economic Forum, November 9, 2020. https://www.weforum.org/agenda/2020/11/what-is-green-finance/?DAG=3&gad_source=1&gclid=CjwKCAiAmZGrBhAnEiwAo9qHiX9trdq-Nfx3HLEcfRiabu38vHF3vu7ACw8qCqrwqXttWzT24lulcxoC4IMQAvD_BwE

¹⁰ PwC, "Opportunities for the GCC to Strengthen the Sustainable Finance," September 14, 2023. <https://www.pwc.com/m1/en/publications/opportunities-for-the-gcc-to-strengthen-the-sustainable-finance-ecosystem.html>

and sustainable financial products and services diversify, ranging from mortgages to carbon insurance.

As countries around the world gear up for Conference of the Parties 28 (COP 28), the focus is on accelerating the energy transition, reassessing climate finance commitments, and prioritizing nature and people in climate action. COP 28 will feature the first-ever Global Stocktake, allowing nations to evaluate the collective response to the climate crisis.¹⁰ This event not only recalibrates efforts but establishes COP 28 as a landmark occasion in the ongoing pursuit of effective global climate solutions. In essence, the rise of green and sustainable financial products, ranging from home mortgages to carbon insurance, signals a shift towards a more environmentally responsible future. As the world grapples with the priority to address climate change, these financial tools play a crucial role in financing projects that align with eco-friendly objectives, paving the way for a sustainable and resilient global economy.



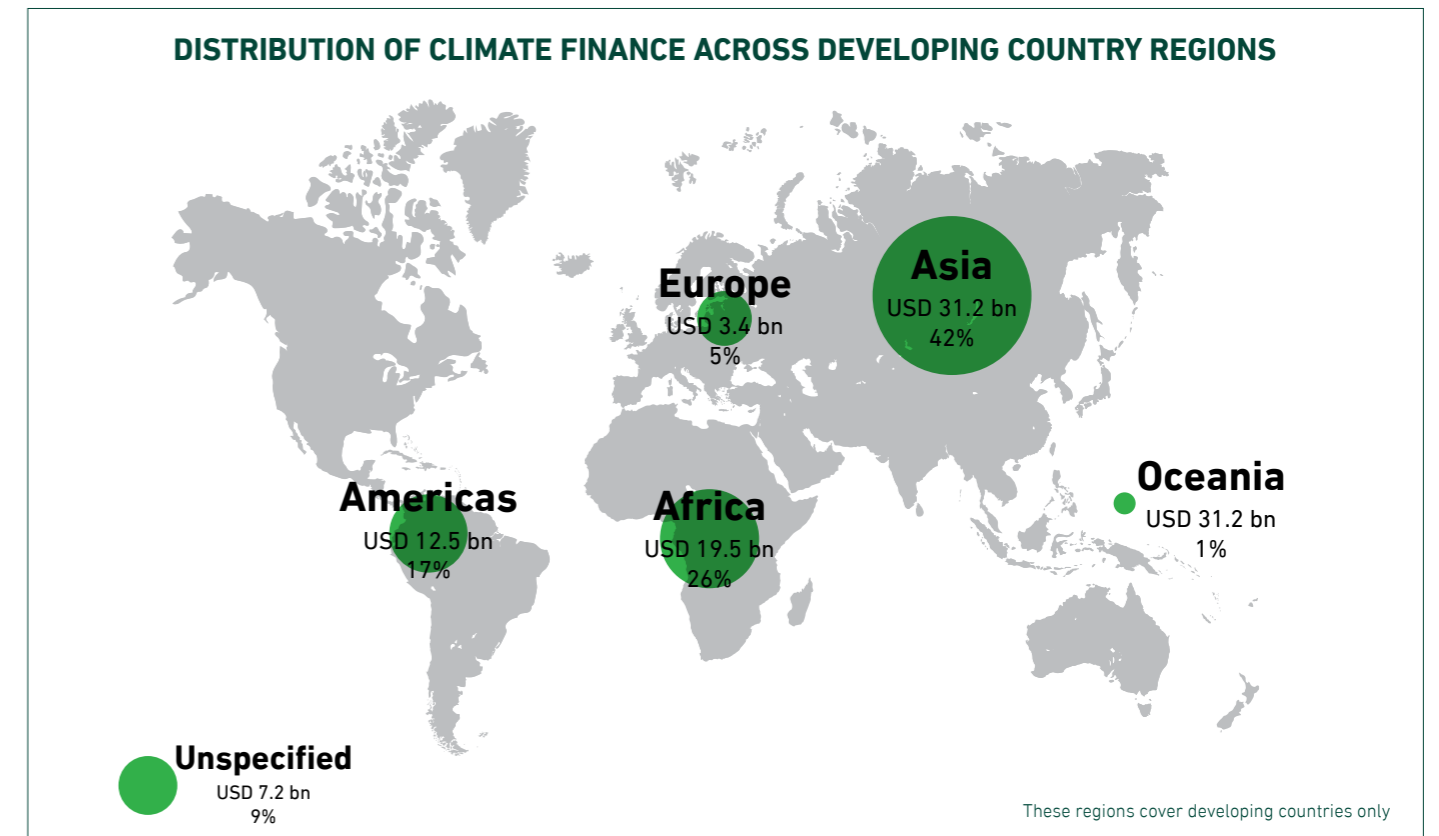
The alignment of international climate agreements, exemplified by the Paris Agreement under the United Nations Framework Convention on Climate Change (UNFCCC), signifies a collective commitment to addressing climate change globally. The Paris Agreement recognizes the integral role of financial flows in achieving a low-emission, climate-resilient trajectory. The EU demonstrates a comprehensive approach through its Action Plan on Financing Sustainable Growth. This strategic initiative, coupled with a robust strategy for financing the transition to a sustainable economy, reflects the EU's dedication to aligning financial practices with environmental objectives. Notably, the EU's significant support for developing economies in mobilizing low-carbon finance emphasizes its commitment to fostering sustainability on a global scale.

¹¹ European Commission, "International climate finance," https://climate.ec.europa.eu/eu-action/international-action-climate-change/international-climate-finance_en#:~:text=Under%20the%20Paris%20Agreement%20%2C%20multiple,our%20long%2Dterm%20climate%20goals

¹² Ibid.

International collaboration is evident through initiatives such as the International Platform on Sustainable Finance, launched by the EU in collaboration with countries including Argentina, Canada, Chile, China, India, Kenya, and Morocco.¹¹ This platform, dedicated to scaling up private capital for environmentally sustainable investments, signifies a global effort to foster a collaborative approach in financing sustainable initiatives. The commitment of the European Commission in 2021, allocating \$2.70 billion to developing economies with a focus on climate

adaptation activities, and the evolution of EU budgetary targets for climate-related projects, demonstrate a sustained effort to prioritize and allocate resources for sustainable development.¹²



OECD (2022), *Aggregate Trends of Climate Finance Provided and Mobilised by Developed Countries in 2013-2020, Climate Finance and the USD 100 Billion Goal*, OECD Publishing, Paris

In the broader international landscape, the financial mechanism under the UNFCCC, involving entities like the Global Environment Facility (GEF) and the Green Climate Fund (GCF), plays a pivotal role in providing resources to developing countries.¹³ The Standing Committee on Finance (SCF), established at COP 16 in 2010, enhances coherence and coordination in climate change financing, supporting the COP's functions related to the financial mechanism. The SCF's annual forum on climate finance, its role in periodic reviews, and its commitment to serving the Paris Agreement highlight the importance of sustained financial efforts.

Additionally, the UN's long-term climate finance process aimed at mobilizing \$100 billion per year by 2020, symbolizes a global commitment to upscale climate finance from diverse sources.¹⁴ Despite encountering challenges and falling short of the target, the UN has acknowledged the unmet goals and opted to extend the deadline to 2025.¹⁵ This phase presents an opportunity for the global community to address financial inadequacies, emphasizing the pressing need for innovative measures. As the world combats climate change challenges, the urgency of aligning financial practices with environmental goals becomes increasingly apparent. The evolving climate finance landscape requires a reevaluation and reform of the global financial architecture, representing a collective commitment to combat climate change responsibly and ethically on a global scale.

¹³ United Nations Climate Change, "Introduction of Climate Finance," <https://unfccc.int/topics/introduction-to-climate-finance>

¹⁴ Ibid.

¹⁵ Richard Kozul-Wright, "A climate finance goal that works for developing countries." UNCTAD, June 14, 2023. <https://unctad.org/news/climate-finance-goal-works-developing-countries#:~:text=This%20goal%20will%20replace%20the,met%2C%20will%20expire%20in%202025.>



International and Regional Initiatives on Green and Sustainable Finance

Green finance initiatives are taking center stage around the world, underscoring a broader dedication to sustainable development. The international landscape reflects a joint effort to tackle climate change and promote sustainable development through substantial financial commitments. In 2021, developed economies allocated approximately \$89.6 billion for climate finance in support of developing economies, marking a noteworthy 7.6% increase from the preceding year.¹⁶ From 2013 to 2021, public climate finance, comprising bilateral and multilateral contributions, nearly doubled from \$38 billion to \$73.1 billion.¹⁷ These figures not only depict a numerical increase but also symbolize a qualitative shift in international cooperation. The rise in climate finance underlines a shared responsibility among nations to address environmental challenges on a worldwide scale, transcending geopolitical boundaries. This financial commitment serves as an acknowledgment that the impact of climate change requires collective and coordinated action, with developed economies playing a pivotal role in supporting developing economies.

In Europe, concrete initiatives like the Green Financing Facility in North Macedonia serve as practical illustrations of sustainable finance in action. With a budget of \$44.4 million, this facility supports loans for households and small businesses, facilitating the adoption of renewable and efficient energy technologies.¹⁸ This support goes beyond financial by providing technical assistance and performance-based payments, particularly focusing on vulnerable groups such as women, single-parent households, and recipients of remittances. The Green Financing Facility, equipped with a \$44.4 million budget, allocates resources, with a \$31.4 million credit line dedicated to businesses and \$6.5 million in loans earmarked for households. Anticipated outcomes include the issuance of loans to 105 businesses and 650 households, contributing to the avoidance of 80,000 tons of GHG emissions and the conservation of 86,000 megawatt-hour (MWh) of energy over a four-year span.

Beyond these tangible benefits, the initiative showcases the transformative potential of green financing in directly addressing local climate change challenges. By strategically combining financial instruments with targeted assistance and performance-driven incentives, the program illustrates a comprehensive approach that could serve as a model for sustainable initiatives on a broader scale.

In January 2017, France took a historic step by issuing its first green sovereign bond, valued at \$7.5 billion over 22 years.¹⁹ Dedicated to renewable energy and environmental projects, these funds exemplify the nation's commitment to sustainable finance practices. Simultaneously, energy giant Electricite de France (EDF) mirrored this effort by issuing a \$1.9 billion green bond for hydroelectric and sustainable-energy projects, marking one of the largest green bonds in US dollars by a corporate issuer globally.²⁰ EDF's investment contributes to a total capacity of 1.8 gigawatts (GW) and an annual renewable output of around 7 terawatt hours (TWH) across 13 projects.²¹ These collective initiatives showcase the diverse applications of green finance in Europe, both nationally and corporately, highlighting a nuanced and multi-faceted approach that prioritizes financial support, inclusivity, and dedicated funding for environmental projects. These initiatives play a significant role in broader global efforts to address environmental concerns, emphasizing Europe's leadership in pioneering sustainable finance practices.

The emergence of Asia, spearheaded by influential players like China, Hong Kong, Republic of Korea, and Malaysia as key contributors to global green and sustainable finance, marks a profound shift in the region's financial landscape. China, taking the lead since 2016, stands out with its substantial commitment, exemplified by an impressive \$104 billion in green bond issuance.²² This substantial financial investment highlights China's proactive role in fostering environmentally conscious initiatives, aligning with the country's broader sustainability objectives.

¹⁶ OECD Secretary-General, "Climate Finance Provided and Mobilised by Developed Countries in 2013-2021 Aggregate Trends and Opportunities for Scaling up Adaptation and Mobilised Private Finance," OECDiLibrary, Paris: OECD Publishing, 2023. <https://www.oecd-ilibrary.org/docserver/e20d2bc7-en.pdf?expires=1701251283&id=id&accname=quest&checksum=CBED0DC8B34D17FBB433F8FD0A019F1>.

¹⁷ Ibid.

¹⁸ Joint SDG Fund, "Green Financing Facility to Improve Air Quality & Combat Climate Change in North Macedonia," <https://joinsdgifund.org/programme/green-financing-facility-improve-air-quality-combat-climate-change-north-macedonia>

¹⁹ Dmitri Sedov and Dr. Richard Mattison, "Green Finance: The Next Driver of Real Growth?" S&P Global, March 28, 2017. <https://www.spglobal.com/en/research-insights/articles/green-finance-the-next-driver-of-real-growth>.

²⁰ Ibid.

²¹ Brooksbank, Daniel, "French energy giant EDF launches its second huge green bond," responsible investor, October 8, 2015. <https://www.responsible-investor.com/french-energy-giant-edf-launches-its-second-huge-green-bond/>

²² BNP Paribas, "Green Finance: What about Asia?," February 13, 2020. <https://cib.bnpparibas/green-finance-what-about-asia/>

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^{23 24 25 26} Ibid.

²⁷ PwC, "Opportunities for the GCC to Strengthen the Sustainable Finance," September 14, 2023. <https://www.pwc.com/m1/en/publications/opportunities-for-the-gcc-to-strengthen-the-sustainable-finance-ecosystem.html>

²⁸ Euronews, "Is Downtown Doha the most sustainable city district in the world?," June 19, 2019. <https://www.euronews.com/green/2019/06/19/is-downtown-doha-the-most-sustainable-city-district-in-the-world>

²⁹ Ibid.

³⁰ Ibid.

³¹ Akhilesh Ganti, "What Is a Sukuk? Sharia-Compliant Bond-Like Financial Instruments," Investopedia, May 13, 2022. <https://www.investopedia.com/terms/s/sukuk.asp>

³² Julia Kagan, "What Is Takaful Insurance and How Does It Work?," Investopedia, July 21, 2021. <https://www.investopedia.com/terms/t/takaful.asp>

³³ Menatalla Ibrahim, "Green Banking: Qatar Eyes \$75bn Investment in Sustainable Finance in 2023," Doha News, January 24, 2023. <https://dohanews.co/green-banking-qatar-eyes-75bn-investment-in-sustainable-finance-in-2023/>

³⁴ Ibid.

³⁵ Ibid.

\$104 billion in green bond issuance.²² This substantial financial investment highlights China's proactive role in fostering environmentally conscious initiatives, aligning with the country's broader sustainability objectives. Simultaneously, the Hong Kong Monetary Authority (HKMA) has played a significant role in advancing green and sustainable banking in the region. Initiating a phased approach in May 2019, the HKMA focused on establishing a common framework (Phase 1) to evaluate individual banks' "Greenness Baseline".²³ This was followed by setting tangible deliverables (Phase 2) and mandating the implementation, monitoring, and evaluation of banks' progress (Phase 3). This methodical progression reflects Hong Kong's commitment to not only setting standards but ensuring a comprehensive and effective integration of sustainable practices across financial institutions. Hong Kong's commitment is further emphasized by the introduction of a \$1 billion green bond, reinforcing the region's dedication to tangible actions that contribute to sustainable financial practices.²⁴ This financial instrument serves as a testament to Hong Kong's alignment with international trends and standards, demonstrating its readiness to actively engage in the global green finance movement.

In 2019, Republic of Korea made notable strides in the green finance arena by issuing a sovereign sustainable bond valued at \$500 million.²⁵ This initiative is aimed not only at supporting the global green agenda but also contributing to social development. The Korean government's proactive stance spurred corporates and financial institutions to rapidly engage with ESG capital globally, highlighting the region's growing emphasis on sustainable practices. Concurrently, Malaysia's central bank, Bank Negara Malaysia (BNM), took inspiration from the European Union by planning a 'principle-based' green taxonomy for banks and insurers.²⁶ This forward-looking approach is designed to identify and label economic activities that contribute to climate change objectives, showcasing Malaysia's commitment to aligning its financial sector with international standards.

Asia's role in global green and sustainable finance is characterized by a proactive and strategic approach from key players. The region's alignment with global frameworks signifies a concerted effort to embed sustainability into financial practices, making a substantial contribution to the worldwide transition toward environmentally responsible finance. Asia's pivotal role in this transformative journey is reflected not only in financial commitments but also in the comprehensive and systematic strategies employed by its leading nations.

The GCC region, like many others, heavily relies on its financial sector, which significantly contributes to the GDP of its member countries. Acknowledging this economic importance, there is a strategic push to advance the adoption of sustainable finance practices. Over the years, GCC countries have committed to initiatives prioritizing sustainable investments, supporting green projects, and fostering sustainable financial institutions. Examples include Saudi Arabia's NEOM project, emphasizing sustainable cities powered by renewable energy, and Qatar's Downtown Msheireb City, with every building having a LEED gold or platinum certifications.^{27 28} These endeavors align with a broader agenda to diversify energy sources and reduce carbon footprints across all GCC nations. To facilitate this transition, policies and regulations promoting sustainable finance have been instituted. These include guidelines for green bonds, environmental risk assessments for financing, and sustainability reporting requirements for companies. For instance, Saudi Arabia adheres to the Saudi National Sustainability Standards, while the Dubai Financial Market, Qatar Stock Exchange (QSE), Bursa Kuwait, and Bahrain Bourse follow their respective ESG Reporting Guides.²⁹ These standards enhance the understanding of the ESG landscape, facilitating informed investment decisions and promoting responsible business practices.

International and Regional Initiatives on Green and Sustainable Finance

In addition to green projects and regulations, the GCC region is witnessing a surge in green bonds and Sukuk, with a total value surpassing \$8.5 billion in 2022, a substantial increase from \$605 million in the previous year.³⁰ Contributions from various GCC entities, including Saudi Arabia's Public Investment Fund (PIF), Abu Dhabi National Energy Company, and Qatar's National Bank (QNB), play a pivotal role in this growth. During the QNDCC panel Dr. Dalal Aassouli - Assistant Professor of Islamic Finance at Hamad Bin Khalifa University (HBKU) - drew attention to the significance of Islamic finance in the GCC and Southeast markets. Rooted in principles like Zakat and Sadaqah, Islamic finance is inherently sustainable, offering various asset management capabilities, such as Islamic mutual funds. Dr. Aassouli highlights Islamic financial instruments like Sukuk and Islamic insurance (Takaful) as crucial contributors to sustainable finance. Sukuk, comparable to a bond, are financial instruments designed to adhere to Islamic religious principles known as Sharia.³¹ Takaful represents a form of Islamic insurance where participants collectively contribute funds to a pool system, ensuring mutual protection against potential loss or damage. Grounded in sharia, or Islamic religious law, Takaful emphasizes the principles of cooperation and mutual responsibility among individuals. These insurance policies encompass various areas such as health, life, and general insurance needs.³² Governments in the region further underscore their dedication to sustainable finance through sovereign sustainable bond programs, particularly emphasizing green bonds and sukuk. This governmental commitment aligns with global initiatives to address climate change and extends beyond reporting standards to encompass crucial areas like disclosure, taxonomy, and governance, reflecting a comprehensive approach to sustainable finance practices in the GCC.

Like most countries, Qatar's journey into sustainable finance began with a proactive approach aimed at strengthening its domestic debt market, mirroring the trajectories of other international and regional counterparts. In the initial stages, major banks and financial stakeholders in Qatar took notable strides, exemplified by QNB issuing the country's inaugural green bond worth \$600 million in 2020.³³ Simultaneously, Masraf Al Rayan, as the first Islamic bank in Qatar, introduced a sustainable finance framework, providing ESG-linked funding opportunities and channeling funds into sustainable projects.³⁴ These pioneering initiatives emphasized Qatar's commitment to sustainable development.

Currently, Qatar holds a prominent position in sustainable finance, with collaborative efforts among financial institutions taking center stage. The Qatar Development Bank (QDB) plays a pivotal role by offering incentives, including a three-year grace period and a 20-year repayment period with discounted interest rates for borrowers meeting sustainability goals.³⁵ The collaboration between Dukhan Bank and the Gulf Organization for Research and Development (GORD), resulting in a Shariah-compliant green and sustainable real estate financing program, exemplifies ongoing efforts to address environmental challenges.³⁶ These contemporary initiatives highlight Qatar's dedication to fostering a diverse and sustainable capital market, positioning itself as a key player in the global push towards green finance.

Looking ahead, Qatar's alignment with global trends, such as the rise of Socially Responsible Investing (SRI) and heightened ESG awareness, positions the nation as a leader in Islamic green finance.³⁷ Qatar's proactive stance in Islamic green finance reflects a forward-looking approach rooted in ethical investment standards and a commitment to environmentally conscious and socially responsible financial strategies. Concurrently, the emphasis on ESG factors is grounded in the growing importance of sustainable and responsible business practices globally. The integration of SRI, ESG, and Islamic green finance signifies a holistic dedication to financial practices in line with global sustainability goals.

Leveraging its robust Islamic finance sector, Qatar integrates financial innovation for sustainability, incorporating sustainability objectives into national strategies. As Qatar continues to cultivate its green finance ecosystem, it is poised to make substantial contributions to global endeavors addressing climate change and achieving sustainable development goals. Moreover, the ongoing exploration of opportunities and challenges at the intersection of sustainability, finance, and development, particularly in the context of global challenges such as the COVID-19 pandemic, underscores Qatar's adaptability and resilience in driving its sustainability agenda. Guided by the QNV 2030, Qatar actively implements measures to mitigate climate change and enhance economic diversification, reinforcing the nation's commitment to a sustainable and resilient future.



Challenges in Green and Sustainable Finance

While the potential of Green and Sustainable Finance is vast it is met with a range of challenges, both on a global scale and within specific regions such as Qatar. The UN and World Bank have listed the following as global challenges towards having a more sustainable green financial landscape.

Limited Insurance Coverage: Economies worldwide, particularly in developing nations, face a significant challenge due to lower non-life insurance coverage compared to their developed counterparts. This results in significant gaps in protection against climate-related losses, directly impacting the resilience of financial institutions. The insufficient insurance coverage acts as a deterrent to the widespread adoption of sustainable practices within these economies. The heightened financial risks associated with climate events create a disincentive for investments in sustainable projects. Financial institutions, reluctant to engage in green financing without adequate protection, find their capacity to contribute to sustainable finance constrained by the lack of comprehensive insurance coverage.

Slow Energy Transition: The slow rate of investment in renewable energies poses a significant challenge that directly intersects with the principles of sustainable financing. Financial institutions are confronted with a dilemma, facing difficulties in aligning their portfolios with environmentally responsible initiatives. The nature of energy security and reliance on conventional energy sources poses a paradox for sustainable financing as it not only hinders the shift towards green energy, but it also adds layers of complexity for financial institutions striving to integrate energy security into their portfolios. This dynamic underlines the challenging relationship between energy reliance and the pursuit of sustainable financing practices.

Data and Capacity Gaps: Insufficient data availability, limited taxonomy coverage, and a lack of expertise pose significant challenges to the effective measurement and disclosure of climate-related exposures and risks within financial firms. This results in a critical impact on sustainable finance, as financial institutions struggle to incorporate environmental considerations into their decision-making processes. The absence of accurate data and reliable risk assessment models hampers the development of sustainable finance practices. The lack of information adds uncertainties to investment decisions, hindering the proactive integration of environmental factors into financial strategies.

³⁶ Ibid.

³⁷ Hamad Bin Khalifa University, "Promoting Green Finance in Qatar: Post-Pandemic Opportunities and Challenges," January 20, 2021. <https://www.hbku.edu.qa/en/news/pandemic-opportunities-challenges>

Regulatory Gaps: Countries face substantial hurdles in creating and enforcing a unified regulatory framework to address climate-related financial risks. Regulatory gaps introduce uncertainties and hinder the development of a comprehensive global regulatory structure crucial for advancing sustainable finance. The lack of cohesive regulations creates challenges for financial institutions, making it difficult to navigate climate-related risks consistently. This lack of regulatory clarity may, in turn, prevent institutions from actively engaging in sustainable finance, given the legal and compliance uncertainties associated with the absence of a unified regulatory framework.

Lack of Government Incentives and Strategies: Many countries face a challenge characterized by a lack of clear policies, emissions targets, and supporting measures, resulting in insufficient government incentives and strategies for sustainable finance. This challenge significantly impacts sustainable finance as financial institutions may hesitate to prioritize green projects in the absence of robust governmental support. The lack of clear policies and targets undermines collaborative efforts towards sustainable financial practices, limiting the overall impact of green financing initiatives on a global scale.



Recommendations on Green and Sustainable Finance

The challenges faced in advancing Green and Sustainable Finance are not confined to specific regions; rather, they represent shared obstacles on a global scale. Overcoming these challenges requires a comprehensive strategy that encompasses technological innovation, robust policy structures, widespread public engagement, and collaborative efforts involving governments, financial institutions, academia, and private sectors.

1. Enhancing Insurance Coverage for Climate Risks: Among the challenge of limited insurance coverage, insurance firms have a strategic opportunity to drive the agenda of sustainable finance forward. By addressing the protection gap against climate-related losses, these firms can strengthen their own resilience and stimulate the adoption of sustainable practices. To capitalize on this prospect, insurance companies can innovate and introduce tailored insurance products designed to mitigate climate risks. These products, offering financial protection against various climate-related risks, can create an environment beneficial to sustainable investments. For instance, in 2021, the European Insurance and Occupational Pensions Authority (EIOPA) issued guidelines on integrating climate change risk scenarios into Own Risk and Solvency Assessments (ORSAs) within the insurance sector. These guidelines play a crucial role, addressing the current lack of incorporation of climate risks into ORSAs by many insurers, especially concerning long-term perspectives. Transition risks associated with climate change, outlined by EIOPA, involve policy, legal, and reputational aspects linked to the gradual shift toward a low-carbon and climate-resilient economy. The guidelines emphasize the necessity for insurers to integrate climate change risks into governance, risk management, and ORSAs, aligning them with other material risks. EIOPA's framework highlights the evaluation of both short and long-term physical and transition risks through climate scenario analysis.³⁸ Collaborating with governments and international organizations, insurance firms have the opportunity to craft comprehensive and affordable insurance solutions, incentivizing financial institutions to actively participate in green financing. This proactive strategy aligns with the overarching objective of mitigating climate risks and fostering sustainable development. Furthermore, sharing successful case studies and industry best practices can act as a catalyst,

encouraging the widespread adoption of such initiatives globally and positively impacting sustainable finance practices.

2. Promoting Investment in Greener and Renewable Energies:

Addressing the questions of energy security requires a crucial strategy involving collaborative initiatives and engaging private investors, financial institutions, and governments collectively. Mr. Trevor Allen - Head of Sustainability for Global Markets at BNP Paribas - emphasizes the importance of establishing comprehensive frameworks that encourage such collective action. This entails incentivizing private investors to participate in green finance through shared responsibilities. To drive sustainable finance, institutions must align their policies and financial incentives with environmentally conscious objectives, thereby accelerating the transition to a low carbon economy that encompasses areas in addition to energy use. Qatar showcases its commitment to both energy security and transition through strategic investments and international collaborations. The Qatar Investment Authority (QIA), a founding member of the One Planet Sovereign Wealth Fund Working Group established following the 2015 Paris Agreement, plays a pivotal role in integrating climate change analysis into investment decisions. Post the Glasgow (COP 26) summit, QIA's \$107 million investment in Rolls-Royce for low-carbon technologies underscores a tangible commitment to advancing green initiatives. By proactively supporting initiatives contributing to a sustainable, lowcarbon economy, the QIA sets a tangible example for other entities to follow. This underscores the importance of adopting financial strategies that prioritize environmental goals, while offering viable solutions to mitigate the challenges posed by energy security. Organizations are encouraged to emulate such practices, fostering a collective shift toward investments that contribute positively to both environmental and economic sustainability.

³⁸ Samantha Ray, "The Insurance Industry and ESG: Challenges and Opportunities," HSBC, June 28, 2022. <https://www.gbm.hsbc.com/en-gb/feed/sustainability/the-insurance-industry-and-esg>

³⁹ EIOPA, "OPINION on the Supervision of the Use of Climate Change Risk Scenarios in ORSA," April 19, 2021. <https://www.eiopa.europa.eu/system/files/2021-04/opinion-on-climate-change-risk-scenarios-in-orsa.pdf>

⁴⁰ Sara A Al-Mohannadi, and Dhabia M. Al-Mohannadi, "Qatar in the Energy Transition: Low Carbon Economy Challenges and Opportunities," Gulf Studies, November 24, 2022. https://doi.org/10.1007/978-981-19-7398-7_7

3. Closing Data and Capacity Gaps:

To overcome the challenges associated with data and capacity gaps, financial institutions should adopt a strategic approach focusing on the creation of new taxonomies and standards. Insights from organizations like the London Institute of Banking and Finance can guide this process.⁴¹ This strategic initiative is not merely procedural but is fundamental to driving financial innovation within the realm of sustainable finance. By prioritizing the establishment of robust taxonomies and standards, financial institutions can play a significant role in closing existing data and capacity gaps. This strategic emphasis serves as a cornerstone for more accurate measurement and disclosure of climate-related exposures and risks inherent in financial operations. It represents a proactive measure to navigate the complexities of sustainability, providing the necessary framework for comprehensive reporting and analysis. Furthermore, this recommendation highlights the crucial role of financial institutions as active contributors to the evolution of industry-wide best practices. For instance, development finance institutions like the International Finance Corporation have successfully provided guidance to financial firms on data collection, analysis, and reporting on climate risks based on international standards.⁴² They have also conducted training sessions on risk management best practices, including climate scenario analysis and stress tests. This approach fosters a collective commitment to transparency and accountability, addressing climate-related challenges in a collaborative and effective manner.

4. Strengthening Regulatory Frameworks for Sustainability:

To advance sustainable finance and address regulatory gaps, it is crucial for governments and regulatory bodies to incentivize green investments, as underscored by industry experts like Mr. Jérôme Ponrouch - Head of CSR and Sustainability MEA at BNP Paribas - during the QNDCC panel. This recommendation highlights the pivotal role these entities play in steering the financial landscape toward sustainability, necessitating a deliberate shift in policy frameworks to align with environmental imperatives and create a financial environment valuing sustainable practices. Global collaboration is not just a suggestion but a strategic necessity, allowing nations to collectively address regulatory gaps with a unified framework crucial for effectively mitigating climate-related financial risks. This collaborative effort reflects the interconnectedness

⁴¹ Dr. Paul Fisher, "What are the Challenges of Green Finance," The London Institute of Banking and Finance, October 10, 2019. <https://www.libf.ac.uk/news-and-insights/news/detail/2019/10/10/what-are-the-challenges-of-green-finance>

⁴² Dimitri Demekas, and Jessica Stallings, "Challenges of Green Finance Private Sector Perspectives from Emerging Markets," Edited by Brian Beary and Chris Vellacott. International Finance Corporation, November 2023. <https://www.ifc.org/content/dam/ifc/doc/2023/challenges-of-green-finance.pdf>

of global financial systems and the shared responsibility of nations in creating an environment that promotes responsible and sustainable financial practices worldwide. Exemplifying collaboration initiatives like the EFSD+ and Qatar's guidelines for green bonds, environmental risk assessments for financing, and sustainability reporting requirements for companies through QSE serves as models for other countries to follow. These projects demonstrate effective cooperation between governments and financial institutions, mobilizing private investment for sustainable projects and showcasing the implementation of sustainable finance practices. Such initiatives provide valuable examples for encouraging the development of global frameworks that actively support and incentivize sustainable finance.

5. Strengthening Government Strategies and Private Sector Collaboration for Green Finance:

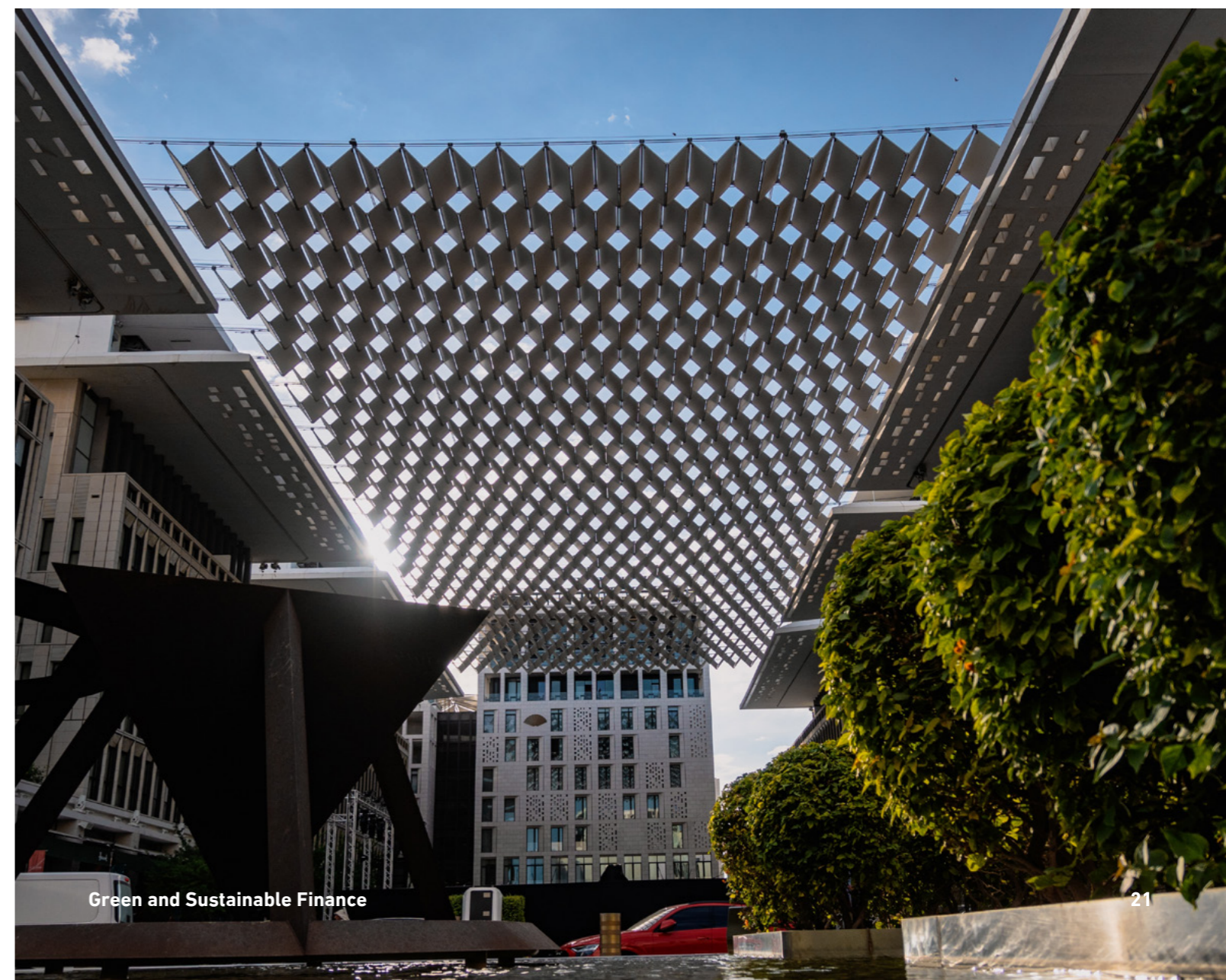
To overcome the challenge of insufficient government strategies and limited collaboration with the private sector in promoting sustainable finance, it is recommended that financial institutions strategically embed ESG principles into their organizational culture. This shift, supported by industry experts like Mr. Leo Tong - Head of Sustainability at QNB - transcends mere adaptation to changing trends; it signifies a recognition of the intrinsic link between corporate culture and sustainable financial practices. Mr. Tong, during the QNDCC panel, highlighted QNB's commitment to the UN SDGs, specifically Goal 17: Partnership for the Goals. He elaborated on the bank's various collaborations, both locally and internationally, emphasizing direct financing and extensive partnerships. Mr. Tong also added that integrating ESG principles into the core operations of financial institutions acknowledges that sustainability is integral to decision-making and risk management. Concurrently, a critical recommendation is for governments to establish clear policies, emissions targets, and supporting measures, recognizing the pivotal role of regulatory frameworks in shaping financial entities' behavior. This collaborative approach, where financial institutions and governments work in tandem, ensures a comprehensive strategy by aligning internal values with external regulatory expectations, fostering a systematic implementation of ESG principles. The collaboration aims not only to achieve immediate sustainable goals but to instill a long-term commitment to responsible and ethical financial practices. Qatar's alignment with

the climate objectives of QNV 2030 serves as a notable example, emphasizing initiatives such as The National Climate Change Action Plan 2030 and the development of ESG frameworks. These efforts are expected to create a significant window of opportunity, with at least \$75 billion by 2030 for sustainable investments, aligning with the global agenda of sustainability and climate responsibility.⁴³

In summary, addressing challenges in green and sustainable finance requires a collaborative approach involving governments, financial institutions, private investors, and regulatory bodies. Policymakers can encourage green investment through interventions like

subsidies and taxes, fostering the development of sustainable projects and enhancing financial resilience. Prioritizing the development of new standards, global collaboration on regulatory frameworks, and integrating ESG principles into organizational culture are crucial steps for realizing the full potential of Green and Sustainable Finance on a global scale.

⁴³ PwC, "Opportunities for the GCC to Strengthen the Sustainable Finance," September 14, 2023. <https://www.pwc.com/m1/en/publications/opportunities-for-the-gcc-to-strengthen-the-sustainable-finance-ecosystem.html>



Conclusion

In conclusion, the global imperative to address climate change has spurred a transformative shift toward green and sustainable finance. This paradigm, pioneered by institutions like the World Bank and embraced by countries worldwide, is a testament to the recognition of the crucial role financial instruments play in mitigating environmental challenges. The rise of green bonds, sustainable investments, and comprehensive financial frameworks reflects not just a trend but a strategic driver enabling countries to fulfill their environmental commitments.

On the international stage, developed economies have significantly increased climate finance, emphasizing shared responsibility in addressing climate change on a global scale. Europe's practical initiatives, such as the Green Financing Facility in North Macedonia and sovereign green bonds, exemplify the diverse applications of sustainable finance, emphasizing accessibility and financial support for environmental projects. Asia, led by influential players like China and Hong Kong, showcases a proactive and strategic approach in aligning with global frameworks, making substantial contributions to the worldwide transition toward environmentally responsible finance. The GCC region, recognizing the economic importance of its financial sector, has strategically embraced sustainable finance practices. Policies, regulations, and green projects, exemplified by the surge in green bonds and Sukuk, underscore the commitment to diversify energy sources and reduce carbon footprints. Qatar, in particular, stands out as a leader in Islamic green finance, with collaborative efforts among financial institutions and innovative programs reinforcing its commitment to sustainable development.

However, amidst the potential of green and sustainable finance, challenges persist. Limited insurance coverage, energy security, data and capacity gaps, regulatory uncertainties, and the lack of government incentives pose obstacles on a global scale. Addressing these challenges requires a collaborative strategy involving governments, financial institutions, private investors, and regulatory bodies. Initiatives such as subsidies, taxes, and the integration of ESG principles into organizational culture are crucial steps in fostering sustainable practices. In navigating this complex landscape, the global community faces an opportunity for innovative solutions. Much like the role of AI in combating climate change, the transformative power of green and sustainable finance lies in collaboration, innovation, public awareness, and tailored approaches. As countries gear up for COP 28, the global commitment to effective climate solutions is underscored, emphasizing the pivotal role of financial instruments in shaping a sustainable and resilient global economy. The challenges are formidable, but the path forward involves a unified global effort, innovative strategies, and the ethical deployment of financial tools to pave the way for a more sustainable future.

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Contributors

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