



QNDCC 2023 White Paper

Sustainable Transition and Economic Diversification

December 4, 2023



White Paper
QNDCC
15-16 October 2023

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Prepared by Strategy Hub

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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Report Team

Dr. Soud K. Al-Thani

Director, Earthna, Qatar Foundation,
Doha, Qatar

Sheikha Amna Al Thani

CEO, Strategy Hub,
Doha, Qatar

Francis Antony Jacob

Earthna, Qatar Foundation,
Doha, Qatar

Mohamed A. Mohamed

Earthna, Qatar Foundation,
Doha, Qatar

Haajerah Khan

Strategy Hub,
Doha, Qatar

Masah Barakat

Strategy Hub,
Doha, Qatar

Ayda ElEzaby

Intern, Georgetown University

Aisha Salat

Intern, Northwestern University

Editorial board

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Doha, Qatar

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Dr. Alexandre Amato

Qatar Foundation, Earthna
Doha, Qatar

Nihal. Mohamed Al-Saleh

Qatar Foundation, Earthna
Doha, Qatar

Dr. Mona Matar Al-Kuwari

Qatar Foundation, Earthna
Doha, Qatar

© Earthna 2023
P.O. Box: 5825, Doha, Qatar
Telephone: (+974) 4454 0242; internet: www.earthna.qa

PI: ETCC-2024-004



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Executive Summary

The Qatar National Dialogue on Climate Change (QNDC) addressed the pressing need for economic diversification and sustainable transition in response to climate change, resource scarcity, and environmental degradation. It underscores the significance of shifting economic paradigms to prioritize sustainability, as historical resource depletion and population pressures have exposed the finite boundaries of our planet. Climate change, with its potential for extreme weather events, food and water scarcity, and economic instability, poses imminent risks that necessitate effective management. Key international agreements like the Paris Agreement, Kyoto Protocol, and UN Sustainable Development Goals serve as pillars in mitigating climate change and fostering sustainability on a global scale. Current trends emphasize the circular economy as

a pivotal approach to reduce waste and resource use, while upholding sustainability principles. However, numerous challenges, including resistance to change, labor market disruptions, inadequate investment, geographical constraints, and global market dynamics, must be addressed. Recommendations include mandating environmental, social, and governance (ESG) reporting, facilitating the skilling of workers, and advocating for an Arab Green Deal to incentivize sustainable growth. In conclusion, this document urges governments and stakeholders to prioritize sustainability, inclusivity, and innovation, recognizing them as crucial components for building a resilient and prosperous future in the face of mounting global challenges.

Scope and Methodology

The scope of this White Paper covers the topics discussed in the Panel Session "Economic Diversification and Sustainable Transition" on the first day of the QNDC, in addition to supplementary research to substantiate the session's key findings with in-depth research and produce optimally relevant recommendations. The findings of this White Paper 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 the detailed insights, this document offers a set of general and Qatar-specific recommendations to support economic diversification and sustainable economic transition.



The Need for Sustainable Transition and Economic Diversification

Economics is understood as the discipline that examines the distribution of resources by society to fulfill human necessities.¹ Many global crises stem from the antiquated chase for endless economic expansion, disregarding the finite boundaries of our planet.² Over the past fifty years, significant economic growth has led to resource shortages in industrial nations and population pressures in developing countries, highlighting the environmental and ecological impacts worldwide. This historical experience underlines that future economic development must prioritize sustainable use of natural resources, environmental conservation, and ecological awareness.³ Sustainable transition and economic diversification are two tools that nations can use to achieve those goals. Sustainable transition, sometimes referred to as “Just Transition” by United Nations (UN) organizations, is the concept of shifting a country’s economy and society towards low-carbon and environmental sustainability while prioritizing inclusivity and equity. Sustainable economic transition helps a country prioritize quality of life over consumption, equality over mere growth, and the rejuvenation of abundant ecosystems rather than their degradation.⁴ Economic diversification, on the other hand, is the process of diversifying a country’s economy in order to prevent reliance on a single source of income.⁵ In the context of climate change, economic diversification refers to reducing a country’s dependence on sectors that are carbon-intensive or environmentally unsustainable. Economic diversification and sustainable transition are typically viewed as parallel and synergistic strategies. However, in the context of climate change, economic diversification is discussed mostly as a tool of sustainable transition as all economies will need to

undergo some level of economic diversification for a sustainable transition.⁶

The imminent peril of climate change, with temperatures edging toward critical levels, threatens severe consequences for populations worldwide, such as extreme weather events, food and water scarcity, and health risks. Without a sustainable transition and economic diversification, economies face disruptive impacts, risking livelihoods, infrastructure, and the stability of global ecosystems.⁷ The economic and social repercussions of climate change extend beyond average temperature increases, with extreme weather events like droughts, fires, and changes in sea levels being critical factors.⁸ One perspective on these impacts is to examine how severe weather events will define “growth episodes.” These phenomena can heavily influence periods of economic growth or decline, with lower income countries often struggling to maintain growth due to a higher likelihood of reversal after such shocks.⁹ Effective management of these events is therefore crucial for economic stability and performance.¹⁰ The difficulty of this task will vary, with some facing greater obstacles than others, based on their stage of economic development and dependence on sectors with high greenhouse gas emissions. A varied economy can bolster economic robustness, lessen dependence on at-risk sectors, mitigate the negative effects of climate change measures, and foster innovation.¹¹ The reason behind the importance for countries to adopt sustainable transition and economic diversification is resilience – through adopting more diverse and sustainable economic practices, resilience against both the environmental and social effects of climate change

¹ Yu-Yun Wang, “Chapter 8 Sustainable Economic Development,” in *Inflation and Growth in China* (USA: International Monetary Fund, n.d.), ch010, <https://doi.org/10.5089/9781557755421.071.ch010>.

² Nick Meynen, “Economic Transition,” European Environmental Bureau, accessed November 29, 2023, <https://eeb.org/work-areas/economic-transition/economictransition/>.

³ Yu-Yun Wang, “Chapter 8 Sustainable Economic Development,” in *Inflation and Growth in China* (USA: International Monetary Fund, n.d.), ch010, <https://doi.org/10.5089/9781557755421.071.ch010>.

⁴ Nick Meynen, “Economic Transition,” European Environmental Bureau, accessed November 29, 2023, <https://eeb.org/work-areas/economic-transition/economictransition/>.

⁵ “Economic Diversification | UNFCCC,” United Nations Climate Change, accessed November 29, 2023, <https://unfccc.int/topics/resilience/resources/economic-diversification>.

⁶ Yu-Yun Wang, “Chapter 8 Sustainable Economic Development,” in *Inflation and Growth in China* (USA: International Monetary Fund, n.d.), ch010, <https://doi.org/10.5089/9781557755421.071.ch010>.

⁷ “Climate: World Getting ‘Measurably Closer’ to 1.5-Degree Threshold | UN News,” May 9, 2022, <https://news.un.org/en/story/2022/05/1117842>.

⁸ Solomon M Hsiang and Jina S Amir, “The Causal Effect of Environmental Catastrophe on Long-Run Economic Growth: Evidence From 6,700 Cyclones,” Working Paper Series (National Bureau of Economic Research, July 2014), <http://www.nber.org/papers/w20352>.

⁹ Benjamin Jones and Benjamin Olken, “The Anatomy of Start-Stop Growth,” *The Review of Economics and Statistics* 90, no. 3 (August 2008): 582–87, <https://doi.org/10.1162/rest.90.3.582>.

¹⁰ Laurence Chandy, “Economic Development in an Era of Climate Change,” Carnegie Endowment for International Peace, January 2023, <https://carnegieendowment.org/2023/01/04/economic-development-in-era-of-climate-change-pub-88690>.

¹¹ Yu-Yun Wang, “Chapter 8 Sustainable Economic Development,” in *Inflation and Growth in China* (USA: International Monetary Fund, n.d.), ch010, <https://doi.org/10.5089/9781557755421.071.ch010>.

International Climate Agreements for Economic Diversification and Sustainable Transition

The global pursuit of sustainable transition and economic diversification is underpinned by several key international agreements, each with distinct goals and strategies. The Paris Agreement, the Kyoto Protocol, and the United Nations Sustainable Development Goals (SDGs) stand as pillars in

this endeavor, setting ambitious targets for nations worldwide. These agreements collectively aim to mitigate climate change, promote sustainable economic growth, and ensure environmental conservation and social equity for future generations.

Table 1: International Agreements

Agreement	Key Points
Kyoto Protocol, 1997	<ul style="list-style-type: none"> Kyoto Protocol (1997) established legally binding emission reduction targets for developed countries under the United Nations Framework Convention on Climate Change (UNFCCC). Introduced mechanisms like the Clean Development Mechanism for sustainable development in less industrialized nations. Faced limitations due to non-participation of major emitters and a focus mainly on developed countries. Acknowledged the growing emissions from emerging economies and the need for a global response to climate change. Integrates economic diversification and sustainable transition into climate action, promoting renewable energy and green technologies. Drives innovation and job creation in sustainable sectors, aligning environmental goals with economic development. Represents a more effective, inclusive, and equitable approach to tackling climate change.
Paris Agreement, 2015	<ul style="list-style-type: none"> Expanded the scope of the Kyoto Protocol, requiring all countries to set climate action plans through Nationally Determined Contributions (NDCs). Aims to limit global temperature rise to below 1.5 degrees Celsius, ideally to 1.0 degrees. Involves all signatory nations in reducing greenhouse gas emissions and adapting to climate impacts through NDCs. Encourages transition to low-carbon, renewable energy sources, particularly in economies heavily dependent on fossil fuels. Focuses on fostering economic resilience and diversification, aligning environmental sustainability with economic growth. Promotes equitable and inclusive sustainable economic growth, with developed countries providing financial support to developing nations. Aims to create job opportunities in green industries as part of the sustainable transition.
United Nations Sustainable Development Goals (SDGs), 2015	<ul style="list-style-type: none"> Aim to create a sustainable and prosperous future by 2030 through interconnected social, environmental, and economic objectives. Emphasize economic diversification and sustainable transition of economies across various goals. Goal 9 focuses on sustainable industrialization and innovation. Goal 7 advocates for sustainable energy solutions, promoting renewable energy and energy efficiency. Goal 8 emphasizes inclusive and sustainable economic growth, productive employment, and decent work. Provides a holistic framework for aligning economic policies with environmental and social priorities. Advocates for a balanced development approach, integrating economic growth with environmental conservation and social equity. Offers a comprehensive strategy for sustainable development that benefits all sections of society.

Current trends in sustainable transition and economic diversification are profoundly reshaping the sectors of energy, industry, and natural resources. In the energy sector, there is a decisive shift towards renewable sources and energy efficiency, driven by technological advancements and policy support. Meanwhile, industries are increasingly adopting sustainable practices and circular economy models, and the management of natural resources is evolving to prioritize sustainability and biodiversity conservation.

One of the most widely accepted sustainability strategies for industries is that of the circular economy. The concept of the circular economy has evolved from various sustainability movements and philosophies, gaining prominence in the late 20th century as a systemic solution to mitigate resource depletion and environmental degradation.¹² The circular economy represents a paradigm shift from traditional, linear models of consumption to

a restorative and regenerative system that is pivotal for sustainable transition. By redefining growth and focusing on positive society-wide benefits, it lays the foundation for economic diversification and long-term resilience.¹³

The shift towards a circular economy marks a departure from the prevailing linear model, where natural resources are extracted, used to make products, and then largely discarded as waste, with only about 7.2 percent of materials being reused.¹⁴ This linear system heavily impacts the environment, exacerbating climate change, biodiversity loss, and pollution. In contrast, the circular economy seeks to minimize waste and extend the life cycle of resources through innovative product design, prolonged use, recycling, and nature regeneration. This approach is applicable across various industries, including textiles, construction, and electronics, promoting sustainable practices like using organic materials in fashion and repurposing materials in construction.¹⁵

¹² "Ellen's Story," Ellen MacArthur Foundation, accessed November 29, 2023, <https://www.ellenmacarthurfoundation.org/about-us/ellens-story>.

¹³ "What Is Circular Economy and Why Does It Matter?," UNDP Climate Promise, April 2023, <https://climatepromise.undp.org/news-and-stories/what-is-circular-economy-and-how-it-helps-fight-climate-change>.

¹⁴ Ibid

¹⁵ Ibid

Adopting a circular economy is critical for addressing the escalating environmental challenges and unsustainable resource consumption, which has seen a dramatic increase of over 65 percent in the past two decades. This unsustainable trend leads to excessive waste and resource depletion, necessitating a reduction in global material extraction and consumption for the planet's health and sustainability. Additionally, the circular economy plays a vital role in the global fight against climate change. Given that material extraction and usage account for about 70 percent of global greenhouse gas (GHG) emissions, circular practices in key sectors can significantly lower these emissions. Aligning with the Paris Agreement's Nationally Determined Contributions (NDCs), the circular economy aids in reducing emissions, enhancing resilience to climate impacts, and potentially generating 6 million jobs worldwide by 2030 through increased recycling and remanufacturing activities.¹⁶

Imposing extraction limits on natural resources is a strategic approach to prevent their depletion and to protect the environment, fostering a sustainable transition for a nation's economy. These limits encourage the development and adoption of sustainable resource management practices, such as the implementation of extraction regulations for oil, gas, and coal.¹⁷ In turn, these practices drive innovation and the growth of alternative industries, particularly in renewable energy and circular economy sectors, reducing reliance on finite resources and promoting economic diversification.¹⁸

In alignment with the principles of the circular economy and sustainable transition, the UNFCCC conference, "Economic Diversification and Transformation" held in Doha, Qatar in October 2016, provided two methods of

diversification to consider when it comes to energy and industry. The first is traditional economic diversification which involves focusing on downstream industrial activities that are high in carbon to help maintain some of the value of natural gas and serve as a protection against periodic market fluctuations. The second method is broad asset diversification which entails diversifying across a wide range of assets to enhance productivity and economic adaptability, providing a stronger buffer against the potential risks associated with significant changes that may arise from actions taken to address climate change.¹⁹ A combination of both was recommended for carbon-dependent nations trying to diversify away from fossil fuels.

Additionally, there is potential in the using green industrial policy for economic diversification in industries, as proposed by the United Nations Conference on Trade and Development. Green industrial policy is a strategy that directs an economy towards low-carbon and climate-adapting goods and technologies. It includes tools that ensure industrial sectors adhere to environmental standards and support the emergence of new sectors based on low-carbon, resource-efficient technologies. This policy not only targets climate-friendly activities but also aims to shift the economy towards other environmentally sustainable goals. The rationale behind green industrial policy is to reduce the economy's dependence on goods with negative climate impacts and promote sectors more resilient to climate change-induced demand reductions. This policy approach involves cleaner production in vulnerable sectors, redesigning existing goods to reduce climate impact, phasing out climate-damaging sectors, and encouraging the development of new low-carbon and climate-adapting sectors.^{20,21}

¹⁶ Ibid

¹⁷ "Managing Natural Resource Wealth (MNRW-TF)" (International Monetary Fund, November 2016).

¹⁸ United Nations Environment Programme (UNEP), "Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication - A Synthesis for Policy Makers" (UNEP, 2011).

¹⁹ Grzegorz Peszko, "Diversification and Climate Policy Action: Dilemmas of Carbon Intensive Countries in the Uncertain World" (UNFCCC Conference: Economic diversification and transformation, Doha, Qatar, October 2016), https://unfccc.int/files/cooperation_support/response_measures/application/pdf/managing_carbon_wealth_of_nations-doha_2_oct_2016-final_wb.pdf.

²⁰ UNCTAD, "Climate Policies, Economic Diversification and Trade" (UNCTAD, 2018).

²¹ Ibid

In the contemporary landscape, finance, trade, and asset management are increasingly being leveraged as pivotal tools to drive sustainable transitions and foster economic diversification. These sectors are witnessing transformative trends, integrating sustainability at their core to align economic growth with environmental and social well-being.

Finance and trade are critical levers in driving sustainable transition and economic diversification. In finance, the growing emphasis on sustainable investment and green bonds is channeling capital towards environmentally friendly and sustainable projects, thus supporting the transition to a low-carbon economy. Asset management is increasingly incorporating ESG criteria, which directs investments towards companies that are sustainable in their operations and strategies. Furthermore, trade policies are being reoriented to support sustainable practices, such as through the promotion of green tariffs and trade agreements that favor environmentally sustainable goods and services. These tools collectively facilitate the shift towards a more sustainable and diversified economy, by encouraging investments in renewable energy, sustainable agriculture, and green technology sectors.²²

The Global Economic Diversification Index (EDI) is an index that addresses the need to assess economic diversification comprehensively, examining activity, trade, and government revenue diversification.²³ According to an article by the Organisation for Economic Co-operation and Development (OECD), the inaugural EDI edition reveals that nations overly reliant on commodity production and exports face growth volatility and a challenging path to catch up with top performers. Notably, seven nations consistently rank among the top ten in the EDI, with service-led economies like the UK, Ireland, Singapore, and Switzerland excelling. Conversely, seven nations consistently place in the bottom ten, including oil-producing and agriculture-dependent countries. Over the years, China, the US, Saudi Arabia, Germany, and Oman have significantly improved their EDI scores, while low and lower-middle income commodity-producing nations generally have lower scores.²⁴ Despite the Middle East and North Africa (MENA) region lacking behind significantly, it shows the fastest pace of EDI improvement, according to the 2023 report from the Global Economic Diversification Index organization.²⁵ The figures below from the report highlight these key findings.

²² Financing for Sustainable Development Report 2019, United Nations Department of Economic and Social Affairs

²³ <https://economicdiversification.com>

²⁴ <https://oecd-development-matters.org/2022/07/01/a-new-global-economic-diversification-index/>

²⁵ Ben Shepherd et al., "Global Economic Diversification Index 2023" (Dubai, UAE: Mohammed bin Rashid School of Government, n.d.), www.EconomicDiversification.com.

Figure 1: EDI for different regions between 2000 and 2021.²⁶

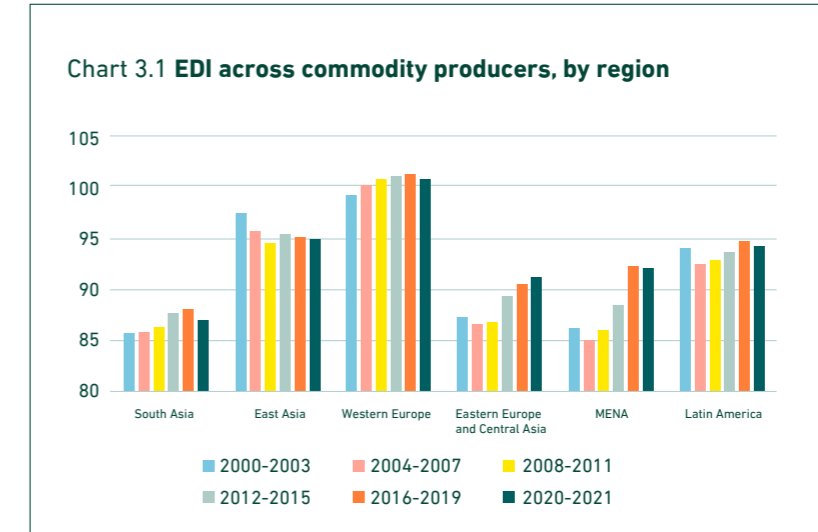
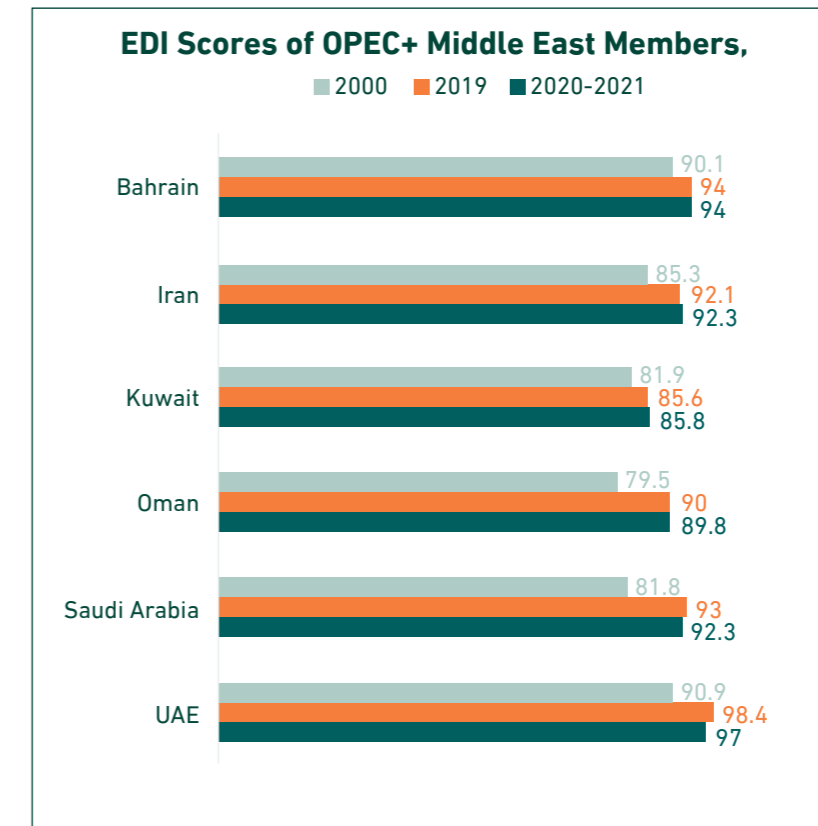


Figure 2: EDI for OPEC+ Middle East members between 2000 and 2021.²⁷



²⁶ Ibid

²⁷ Ibid



Fostering a green economy within the region necessitates a transformation of the financial system to accommodate the substantial funding needs for the SDGs; the Arab region itself is projected to require an extra \$230 billion annually.²⁸ This significant shortfall in investment highlights the need to reform the financial system's structure to attract and leverage financing from both public and private sectors for sustainable investments.²⁹ It is imperative, therefore, to prioritize sustainable investments, which can be effectively guided by robust ESG (Environmental, Social, and Governance) strategies.³⁰

Transition Investment is an investment policy that aims to bring about both socio-economic change as well as financial returns for investors.³¹ Transition Investment can profoundly influence both the global and regional economies by channeling the funds of major institutional investors into transformative projects. This approach paves the way for an economic model that prioritizes environmental sustainability, social inclusion, and collective well-being. By doing so, it not only contributes to a more equitable economic landscape but also fosters innovation and resilience. Such investments can catalyze significant advancements in green technology and social welfare, setting a precedent for future economic strategies worldwide. According to the 2023 Annual Report from NYU Abu Dhabi's (NYUAD) new Transition Investment Lab (TIL), Middle Eastern institutional investors are advised to adopt transition investment as a novel philosophy. This approach will support the UN SDGs, leveraging investors' distinct access to emerging markets.³²

In the context of sustainable transition and economic diversification, trade plays a crucial role in building resilience against the adverse impacts of climate change and policies implemented to mitigate these changes. Economic diversification, as a strategy, involves moving away from a dependence on a narrow range of exports that are vulnerable to global climate policies. This shift is essential for countries

to adapt to changing economic landscapes and to mitigate risks associated with climate change impacts.^{33 34}

Further, effective utilization of trade can help countries reduce instability in their economic returns.³⁵ By diversifying exports, countries can shield their economies from the volatility associated with reliance on a limited range of products. This approach is particularly significant for developing countries, where economic diversification is seen not just as a response to climate change, but as a broader strategy for sustainable development. It brings numerous benefits beyond resilience, including improved economic stability and growth.³⁶

Global value chains (GVCs), also present an opportunity for economic diversification, and consequently, the sustainable transition of economies. GVCs represent a complex web of production and distribution processes spread across multiple countries, leveraging the specific advantages of each location. They demonstrate the international nature of modern production, with each country contributing uniquely to the creation and delivery of goods and services.³⁷ Global value chains (GVCs) have become a defining feature of 21st-century trade, reshaping the nature of production and trade by segmenting production into specialized stages dispersed globally. This trend, facilitated by trade and investment liberalization, has significantly influenced world trade, with intermediate goods and services comprising about 60% of global trade by value.³⁸ GVCs offer developing countries the opportunity to integrate into the world trading system without needing to build entire production ecosystems. Participation in GVCs allows for knowledge spillovers and various forms of upgrading, such as product, process, functional, and chain upgrading. This participation is crucial for developing countries to diversify their economies and build resilience against the impacts of global economic changes.^{39 40}

²⁸ <https://www.greenpolicyplatform.org/sites/default/files/downloads/resource/AFEDReport-financingSDinArabCountries2018-.pdf>

²⁹ <https://www.mei.edu/publications/we-cant-tackle-climate-change-middle-east-without-esg-investing>

³⁰ <https://www.mei.edu/publications/we-cant-tackle-climate-change-middle-east-without-esg-investing>

³¹ <https://nyuad.nyu.edu/en/news/latest-news/science-and-technology/2023/may/til-launch-2023.html>

³² External Relations Staff, "Middle East Can Drive Sustainable Change Through 'Transition Investment' Strategy," New York University Abu Dhabi, accessed December 3, 2023, <https://nyuad.nyu.edu/en/news/latest-news/science-and-technology/2023/may/til-launch-2023.html>.

³³ UNCTAD, "Climate Policies, Economic Diversification and Trade" (UNCTAD, 2018).

³⁴ BNP Paribas, "2022 Integrated Report: Solutions at Scale for a Sustainable World," 2022, <https://integrated-report.bnpparibas/2022https://integrated-report.bnpparibas/2022>

³⁵ UNCTAD, "Climate Policies, Economic Diversification and Trade" (UNCTAD, 2018).

³⁶ BNP Paribas, "2022 Integrated Report: Solutions at Scale for a Sustainable World," 2022, <https://integrated-report.bnpparibas/2022>

³⁷ OECD, WTO, and World Bank Group, "GLOBAL VALUE CHAINS: CHALLENGES, OPPORTUNITIES, AND IMPLICATIONS FOR POLICY," July 2014, <http://www.g20.utoronto.ca/2014/Global%20Value%20Chains%20Challenges%20Opportunities%20and%20Implications%20for%20Policy.pdf>.

³⁸ UNCTAD, "Climate Policies, Economic Diversification and Trade" (UNCTAD, 2018).

³⁹ Ibid

⁴⁰ Ibid

Frameworks for Sustainable Transition and Economic Diversification

In the pursuit of sustainable transition and economic diversification, a variety of frameworks have been established, each helping in defining solutions for sustainable transition and economic diversification and enabling the implementation of those solutions through specific goals and targets. National sustainable transition frameworks provide a country-specific roadmap, aligning national priorities with sustainable practices and economic diversification strategies. These frameworks are vital for actionable policies. At the QNDCC, Sheikha Amna Al Thani, CEO of Strategy Hub, asserted that these national guidelines can be tailored further for each sector in order to clearly understand their roles, responsibilities and contributions and set their targets accordingly. This ensures impactful change, while achieving the national strategic objectives. Regional economic policy frameworks, on the other hand, focus on collaborative approaches, leveraging regional strengths and opportunities for collective progress. Frameworks specifically centered on finance play a crucial role, guiding investments and financial flows towards sustainable development and diversified economic models

One example of a national framework that incorporates economic diversification and sustainable transition into their national strategy is the Just Transition Framework for South Africa. The Just Transition Framework for South Africa, developed by the Presidential Climate Commission, aims to guide the country towards a low-emission, climate-resilient economy. It addresses challenges and opportunities in key sectors like coal, automotive, agriculture, and tourism, affected by global shifts towards reducing emissions. The framework highlights the potential for growth in renewable energy, clean technology, and job creation. It envisions a future economy diversified and strengthened by sustainable practices and innovative investments in sectors like electric vehicles (EVs) and climate-smart agriculture.

Moreover, France's National Strategy serves as a quintessential example of a strategy that incorporates economic diversification and sustainable transition. At the QNDCC, Ms. Efi Frager, Head of the Economic Department at the French Embassy in Doha, attested to France's commitment to sustainable economic diversification. According to Ms. Frager, France aims to be the first decarbonized nation in Europe, in line with the country's national strategy, Climate Change 30. This strategy was summed up by Ms. Frager with three main points – to produce better, live better, and better understand the world. She explained that to produce better is to decarbonize industries using technology artificial intelligence (AI). To live better, she explained, is to focus on health and the pharmaceutical industry. Ms. Frager

highlighted the similarities between France and Qatar's national strategies – an opportunity to boost cooperation in terms of diversification and sustainable implementation. The way to do this, Ms. Frager explained, is by collaboration through workshops, conferences, and bringing experts together. Further, she stated that cooperation can also be done through international platforms such as the UN, the International Monetary Fund (IMF), the World Bank, One Planet, or the Paris Summit.

As for financial frameworks, the European Bank for Reconstruction and Development (EBRD) InvestEU Framework for Sustainable Transition serves as an example. It is a EUR 375 million framework, featuring EBRD loans enhanced by InvestEU first loss guarantees, that is directed primarily at private companies. This funding is earmarked for investments in low-carbon transition, renewable energy, efficient transportation and buildings, resource efficiency, the circular economy, and other sustainability initiatives. The Framework targets Green Economy Transition investments across a wide array of corporate and infrastructure sectors (excluding financial institutions) in EBRD's operational EU Member States. The inclusion of the InvestEU first loss guarantee aims to spur innovative investments by tackling market inefficiencies and suboptimal investment conditions.⁴¹

In 2022, the Sustainable Finance Working Group (SFWG), an organization originally established to identify institutional and market barriers to green finance, worked in alignment with G20 Sustainable Finance Roadmap to produce a framework for sustainable transition finance.⁴² They claim that focusing only on financing "pure green" activities – ones that have minimal to zero carbon emissions – is an inefficient avenue of financial sustainable transition. Consequently, their framework incorporates a more broad and varied selection of sustainable investments. It involves identifying transitional activities and investments and reporting on their progress. As well as developing finance instruments for transition, designing policy measures, and assessing and mitigating their social and economic impacts.⁴³

The G20 Sustainable Finance Roadmap is a strategic guide developed to direct the efforts of G20 members, international organizations, and stakeholders towards the critical elements of the sustainable finance agenda. It outlines actions to promote the achievement of sustainability priorities in the years ahead. Endorsed by G20 leaders in 2021, it serves as a multi-year framework for informing the G20's broader climate and sustainability strategies. The main pillars of the G20 Roadmap are the development of markets and approaches to align

Frameworks for Sustainable Transition and Economic Diversification

investments with sustainability goals, the assessment and management of climate and sustainability risks, and the roles of international financial institutions, public finance, and policy incentives.⁴⁴

The European Green Deal constitutes an extensive array of policy measures put forward by the European Commission to steer the European Union (EU) and its member states on the path to a sustainable green transformation. The objective is to reach a state of zero net GHG emissions by the year 2050. This initiative

spans various policy domains, such as climate change mitigation, environmental safeguarding, energy solutions, transportation, industrial practices, agriculture, and eco-friendly finance. More than just curbing emissions, the Green Deal aims to promote the welfare and health of the populace, guarantee a just and thriving society, and advance a contemporary, competitive economic landscape. It signifies a commitment across the EU to engage and incorporate contributions from communities, enterprises, and institutions towards forging a sustainable future for all.^{45 46}

⁴¹ "EBRD InvestEU Framework for Sustainable Transition," The European Bank for Reconstruction and Development, accessed November 29, 2023, <https://www.ebrd.com/work-with-us/projects/psd/54197.html>.

⁴² Tiara Azarine and Laura E. Songue, "Sustainable Finance: A Transition Framework to Reach the SDGs," Sustainable Finance Hub, accessed November 29, 2023, <https://sdgfinance.undp.org/news/sustainable-finance-transition-framework-reach-sdgs>.

⁴³ Ibid

⁴⁴ G20 Sustainable Finance Working Group, "G20 Sustainable Finance Roadmap" (G20 Italian Presidency, 2021), https://g20sfwg.org/wp-content/uploads/2022/01/RoadMap_Final14_12.pdf.

⁴⁵ "European Green Deal," Eurofound, January 2023, <https://www.eurofound.europa.eu/en/topic/european-green-deal>.

⁴⁶ "European Green Deal," European Council, accessed November 29, 2023, <https://www.consilium.europa.eu/en/policies/green-deal/>.

Challenges in Implementing Economic Diversification and Sustainable Transition Solutions

Numerous elements influence the challenges to achieving sustainable transition, including culture, environmental concerns, lack of financing and resource availability, industrial configurations, resistance to change, and geographical circumstances, and labor market challenges.⁴⁷ ⁴⁸ The critical challenge during the transition phase is to preserve a balance among the three tenets of sustainability - environmental conservation, economic development, and social cohesion. Responses to the climate change challenge should not only provide advantages but also prevent, or handle, any unforeseen social and economic consequences.⁴⁹ Several prevalent challenges, observed in both Qatar and globally, encompass:

- **Resistance to Change:** At the QNDCC, Sheikha Amna Mohammed Suhaim Al-Thani, CEO of Strategy Hub, disputed the incorrect perception that adopting more sustainable practices leads to less growth. She explained that the very definition of sustainability

promotes growth in the long term as it secures the livelihoods of our future generations. However, there may still be resistance to sustainable transition from some stakeholders benefiting from the status quo, including businesses, workers, and political groups. Transitioning to new industries can be met with opposition from those who perceive a risk to their interests. Another reason for inflexibility includes dependency on traditional industries. Economies that are heavily reliant on non-renewable resources or traditional industries may resist change due to the potential short-term economic impact. Transitioning away from such industries requires careful planning to avoid economic disruption. Furthermore, the global market can impact a country's ability to transition sustainably. For example, if there is a high demand for a country's traditional, non-sustainable products, it might be financially challenging to move away from producing those products.



Challenges in Implementing Economic Diversification and Sustainable Transition Solutions

- Labor Market and Social Challenges: Managing the impact on the global workforce will be one of the most significant and intricate challenges.⁵⁰ Research suggests that approximately 24 million new jobs could emerge globally in the energy sector by 2030 with the implementation of appropriate policies fostering a green economy. However, it is also estimated that around six million jobs might be lost in this transition.⁵¹ As new jobs are created, some jobs will be substituted while others will be eliminated entirely.⁵² Groups at risk, including women, low-income individuals, persons with disabilities, and Indigenous Peoples, will face greater adversity due to the climate crisis. It is essential that the shift toward a low-carbon economy incorporates measures to involve these groups, especially in terms of providing them with opportunities for decent employment.⁵³
- Inadequate investment: Inadequate investment significantly impedes the sustainable transition and economic diversification of a country. Sustainable development, characterized by the adoption of green technologies and practices, requires substantial initial capital. This capital is essential for researching and implementing renewable energy sources, eco-friendly infrastructure, and sustainable industrial processes. However, many countries, especially those with emerging economies, face a dearth of necessary funds. Without adequate investment, these nations struggle to shift away from traditional, often environmentally harmful industries. The lack of financial resources not only hinders the adoption of advanced, sustainable technologies but also impacts the development of human capital and the establishment of regulatory frameworks that support sustainable practices. Consequently, the gap between the need for sustainable development and the available resources to achieve it remains a significant barrier, stalling the progress towards a greener and more diversified economy. This challenge is compounded by the global nature of financial markets and investment flows, which are often influenced by short-term gains rather than long-term sustainability goals.
- Geographical challenges: Geography plays a significant role in the challenges associated with implementing sustainable transition and economic diversification. The geographical location and physical attributes of a country can profoundly influence its ability to adopt sustainable practices and diversify its economy. For instance, landlocked countries might struggle with accessing renewable energy sources like wind or tidal power, which are more readily available to coastal nations. Similarly, countries with limited arable land face challenges in developing sustainable agricultural practices. Additionally, nations with harsh climates or prone to natural disasters may find it difficult to maintain sustainable infrastructures, such as solar panels in regions with low sunlight or wind turbines in storm-prone areas. Geography also impacts access to resources and markets; remote or isolated regions might encounter higher costs and logistical difficulties in transitioning to green technologies or in trading sustainably produced goods. Furthermore, countries rich in fossil fuels, like Qatar, might find it economically challenging to shift away from these resources due to existing infrastructure and market dependencies. Thus, geographical factors play a crucial role in shaping the pathways and feasibility of sustainable transition and economic diversification, necessitating tailored approaches that consider these unique environmental and spatial challenges.

⁴⁷ Yu-Yun Wang, "Chapter 8 Sustainable Economic Development," in *Inflation and Growth in China (USA: International Monetary Fund, n.d.)*, ch010, <https://doi.org/10.5089/9781557755421.071.ch010>.

⁴⁸ "What Is Just Transition? And Why Is It Important?," UNDP Climate Promise (blog), accessed November 29, 2023, <https://climatepromise.undp.org/news-and-stories/what-just-transition-and-why-it-important>.

⁴⁹ UNFCC, "Sustainable Economic Transition and Economic Diversification" (UNFCC, n.d.), https://unfccc.int/media/782996/background-_economicdiversification.pdf.

⁵⁰ Peter Thomson, "Opening Remarks by H.E. Peter Thomson, COP22 High-Level Event: Sustainable Economic Transition and Economic Diversification" (UN President of the General Assembly, November 2016), https://www.un.org/en/ga/president/71/pdf/statements/COP22_HLM_Sustainable_Economic_Transition_Diversification_15112016.pdf.

⁵¹ International Labour Organization, "World Employment and Social Outlook 2018: Greening with Jobs," May 2018.

⁵² Camilla Roman, "A Just Transition towards Sustainable Economies and Societies for All," <https://unfccc.int/sites/default/files/resource/IL0-JT.pdf>.

⁵³ Glaser Vasquez and Rhea C. Hernando, "Transitioning to a Sustainable Economy While Ensuring Inclusion" (APEC Policy Support Unit, December 2022), https://www.apec.org/docs/default-source/publications/2022/12/transitioning-to-a-sustainable-economy-while-ensuring-inclusion.pdf?sfvrsn=1dfa7c7a_2.

Recommendations for Implementing Economic Diversification and Sustainable Transition

To aid a just transition, it's essential to guide capital towards investments aligned with robust ESG principles. These principles should address aspects like job creation, community development, and skill enhancement.⁵⁴ Achieving an economy that safeguards the natural environment and maintains peoples' well-being can be facilitated by public authorities using several policy tools. These include regulatory measures like prohibitions and regulations, market-oriented instruments like taxes and charges, and behavioral strategies such as incentives and information dissemination.⁵⁵

In The Gulf Cooperation Council (GCC), countries, including Qatar, have outlined ambitious economic diversification plans in their long-term visions, aiming to transition towards a post-oil era by expanding non-fossil fuel industries and improving environmental sustainability. For example, Qatar has shown increasing interest in renewable energy projects, with a notable focus on solar power.⁵⁶ The country aims to generate a significant portion of its electricity from renewable sources, such as the large-scale solar power plant in Al-Kharsaah.⁵⁷ Additionally, Qatar's National Action Plan for Climate Change 2030, in alignment with the Qatar National Vision 2030 (QNV 2030) and the UN SDGs, commits to addressing climate change through economic diversification. The plan emphasizes building capabilities and optimizing the use of natural resources as part of this diversification process.⁵⁸

1. Diversifying and Sustainably Transitioning the Energy Industry

A country can achieve a sustainable transition in its energy sector and diversify its energy economy through a comprehensive strategy that includes investing in renewable energy, promoting energy efficiency, incentivizing innovation, and implementing supportive policies. Diversification of the energy mix, collaboration with international partners, and fostering new industries and job opportunities are also key elements of this transition. Such an approach addresses economic, environmental, and social aspects, contributing to long-term economic resilience and sustainability. Qatar can explore the development of a green hydrogen economy, capitalizing on its expertise in natural gas production. Producing hydrogen through renewable energy-powered electrolysis and exporting it to global markets aligns with sustainability goals while creating new economic opportunities. Qatar can also foster research and innovation in clean energy technologies, encouraging the growth of a knowledge-based industry.⁵⁹

2. Diversifying Imports and Exports to Mitigate Global Market Volatility

Diversifying both exports and imports is a crucial strategy for a country aiming to mitigate global market volatility while transitioning to a more sustainable economy. On the export side, a country can diversify its product offerings by investing in a range of industries, including renewable energy, technology, agriculture, and manufacturing. For example, Qatar can expand its non-oil and gas sectors, such as petrochemicals, manufacturing, and high-tech industries, to reduce its heavy reliance on hydrocarbon exports. By nurturing these sectors, the country can create a broader portfolio of goods and services to sell internationally, reducing its dependence on a single industry and its susceptibility to market fluctuations. Simultaneously, by diversifying imports, the country can minimize the risks associated with supply chain disruptions and external shocks. This can be achieved by sourcing goods and services from various countries, developing domestic industries, and fostering trade relationships with nations that complement the country's sustainability goals. In the case of Qatar, establishing trade agreements that promote the exchange of sustainable and renewable technologies can support its transition toward a more environmentally friendly economy. A well-rounded approach to both exports and imports diversification not only enhances economic resilience but also contributes to a more sustainable and adaptable economy in an increasingly interconnected global market. At the QNDCC, Mr. Trevor Allen, Head of Sustainability for Global Markets at BNP Paribas asserted the importance of having a local supply of sustainable products, especially in energy and transportation. Mr. Allen explained how China, for instance, has become a leader in the supply chain for EVs, processing 80% of the components that make up EV batteries. He stated that for Qatar's diversification effort, it is important for Qatar to ensure that it does not only rely on one producer or supplier of EVs. Finally, Mr. Allen expressed the importance of having a strong partner or team of investors willing to invest in Qatar's sustainable transition.

3. Public Communication and Social Awareness

Public communication and stakeholder engagement are vital for a successful transition to a sustainable and diversified economy in the context of addressing climate change. Open and transparent communication builds trust and credibility in government policies, ensuring the public understands the reasons, benefits, and challenges of the transition. Involving various stakeholders, including government agencies, businesses, NGOs, communities, and individuals, in decision-making leads to more effective and equitable policies, identifying barriers

and opportunities. Empowering society to shape and own these policies fosters a sense of responsibility and accelerates the adoption of ambitious climate policies, expediting the transition toward a sustainable and diverse economy.⁶⁰ A study from Opole University examining the effectiveness of sustainability campaigns spanning various environmental topics found that public awareness initiatives are key in molding attitudes and encouraging environmentally friendly behaviors, although they can be costly. Creating a systematic approach to assess the effectiveness of public awareness campaigns

would improve their societal influence.⁶¹ A strong example mentioned in the study is The Clean Water Campaign. This campaign was led by local governments in Atlanta, Georgia in the United States and aimed to increase awareness of stormwater pollution and promote water pollution prevention solutions. This successful campaign, involving businesses and media partnerships, has significantly raised public awareness and interest in water quality, offering a model for other local governments to emulate.⁶² According to pre-and post-campaign surveys, the following achievements were noted:⁶³

Table 2: Clean Water Campaign Effectiveness

The number of people who identified storm water runoff as the main source of water pollution over factories/industrial discharges and over landfills grew from 9.5% to 21.5% between 2001 and 2004.
The number of people who were very likely to check their cars for leaks grew from 68% to 83.8%.
The number of people who were very likely to recycle motor oil changed from 55% to 68.2%.
The number of people who were very likely to pick up after their pets to prevent water pollution grew from 32.2% to 55.8%.
The number of people who heard about the Clean Water Campaign grew from 49% to 71%.

⁶⁴ "Roundtable on Climate Action and SDG 8: Climate Action That Promotes a Just and Sustainable Transition for All" (UNFCCC COP 24, Katowice, Poland: UN Climate Change, n.d.).

⁶⁵ "Transition to a Sustainable Economy: Policy Recommendations," Swiss National Science Foundation (SNSF), accessed November 29, 2023, <https://www.snf.ch/en/pYpCx9JuUPwBpqBM/news/undefined/en/pYpCx9JuUPwBpqBM/news/transition-to-a-sustainable-economy-policy-recommendations>.

⁶⁶ Aisha Al-Sarihi, "Prospects for Climate Change Integration into GCC Economic Diversification Strategies" LSE Middle East Centre (February 2018).

⁶⁷ "Al Kharsaah, A Pioneering Solar Power Plant in Qatar," TotalEnergies.com, November 29, 2023, <https://totalenergies.com/projects/solar/al-kharsaah-pioneering-solar-power-plant-qatar>.

⁶⁸ "Environment and Sustainability," Government Communications Office, accessed November 29, 2023, <https://www.gco.gov.qa/en/focus/environment-and-sustainability/>.

⁶⁹ Anthony Polack, "Enabling Frameworks for Sustainable Energy Transition," Commonwealth Sustainable Energy Transition Series (The Commonwealth, March 2021), https://production-new-commonwealth-files.s3.eu-west-2.amazonaws.com/migrated/inline/Sustainable%20Energy%20Transition%20Series_Enabling%20Frameworks%20for%20Sustainable%20Energy%20Transition.pdf.

⁷⁰ UNFCC, "Sustainable Economic Transition and Economic Diversification" (UNFCC, n.d.), https://unfccc.int/media/782996/background-_economicdiversification.pdf.

⁷¹ Anna Borawska, "The Role of Public Awareness Campaigns in Sustainable Development," *Economic and Environmental Studies* 17 (December 2017): 865–77, <https://doi.org/10.25167/ees.2017.44.14>.

⁷² Kelley O'brien, "Making a Splash: The Clean Water Campaign from Grassroots to Mass Media," 2005, <https://api.semanticscholar.org/CorpusID:132308432>.

⁷³ Anna Borawska, "The Role of Public Awareness Campaigns in Sustainable Development," *Economic and Environmental Studies* 17 (December 2017): 865–77, <https://doi.org/10.25167/ees.2017.44.14>.

4. (Re)Skilling and Training of the Workforce

The sustainability of economic change must also be considered alongside a fair transition for the workforce, the establishment of social safety nets, and additional social initiatives.⁶⁴ Measures for a just transition vary widely, including skill development and training initiatives for young people and those requiring new skills, public employment schemes, financial transfers, remunerations for ecosystem services, and organized labor migration pacts.^{65 66} Just transition measures encompass policies to support workers and communities impacted by economic transformations, including skill development and training opportunities to facilitate transitions to emerging industries. Social safety nets, such as unemployment benefits, public employment schemes, healthcare coverage, and other forms of support, are crucial for shielding vulnerable groups during economic shifts. Public employment schemes, for example, can create temporary job opportunities for those impacted by economic transition. These schemes primarily aim to create job opportunities by focusing on delivering public goods and services. Examples include national investment to create jobs in environmental restoration, educational support, social services, sanitation, and social work.⁶⁷ Additionally, financial support through subsidies and grants eases the transition to sustainable practices. Remunerations for ecosystem services recognize contributions to conservation, while organized labor migration pacts enable workers to move to regions with better job prospects while protecting their rights. These measures collectively promote equitable and sustainable economic change

5. Formation of an Arab Green Deal

A Green Deal for the MENA or GCC regions would be a strategic move towards sustainable development in the

Middle East, mirroring the ambitious goals of the European Green Deal. Such a policy framework would prompt the transition to a greener economy, leveraging fiscal incentives to spur investment in environmentally friendly technologies. This initiative would be timely, especially as the region prepares for global climate events and seeks to cement its position in the green economy. Many GCC countries, including Qatar, are already investing in green projects, and setting precedents with their own initiatives to diversify away from oil. A regional Green Deal would build on these efforts, providing a unified direction for sustainable growth and reinforcing the Middle East's commitment to long-term environmental and economic sustainability.⁶⁸

6. Increased Financing and Investment for Sustainable Projects and Innovation

Financing and investing in sustainable projects and innovation are critical for achieving a sustainable transition and fostering economic diversification. These initiatives not only address environmental challenges but also create new markets and job opportunities, fueling long-term economic growth and resilience. Green financing, including green bonds, are an effective way to achieve this goal. During the QNDCC, Mr. Trevor Allen expressed that there is huge potential for growth in green bonds as demand for green bonds has been increasing from investors; there is a willingness to pay the "green premium". Qatar has taken huge strides in green financing solutions. At the QNDCC, Mr. Ali Mohammed Al Mohannadi, Executive Director of Business Finance at QDB, discussed how QDB's novel green financing program for SMEs aligns with Qatar's QNV 2030 environmental goals. He mentioned efforts to make green financing more accessible, including reducing equity requirements from 40% to 20%.

⁶⁴ UNFCC, "Sustainable Economic Transition and Economic Diversification" (UNFCC, n.d.), https://unfccc.int/media/782996/background-_economicdiversification.pdf.

⁶⁵ UN ESCAP, International Labour Organization, and European Union, "Compendium of Legislation and Institutional Arrangements for Labour Migration in Pacific Island Countries," 2014.

⁶⁶ International Labour Organization, "World Employment and Social Outlook 2018: Greening with Jobs," May 2018.

⁶⁷ International Labour Organization, "Public Employment Programmes (PEPs): Creating Decent Jobs through National Investments" (International Labour Organization, 2020), https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_759118.pdf.

⁶⁸ PricewaterhouseCoopers, "Is a Green Deal the Middle East's Path to Sustainability?," PwC, accessed November 29, 2023, <https://www.pwc.com/m1/en/publications/an-incentive-to-action-european-green-deal-and-the-middle-east.html>.

Conclusion

In summary, this document emphasizes the critical imperative of economic diversification and sustainable transition in response to the formidable challenges posed by climate change, dwindling resources, and environmental degradation. The global community stands at a pivotal juncture, where the paramount focus must be on prioritizing collaboration, localization, and investment in order to sustainably transition its economies.⁶⁹ Key international accords, including the Paris Agreement, Kyoto Protocol, and UN SDGs, provide a solid framework for addressing these challenges on a worldwide scale. Current trends, particularly the adoption of circular economy principles and the infusion of sustainability into finance and trade practices, offer encouraging avenues toward a more sustainable and multifaceted economy. Nonetheless, we must confront a multitude of hurdles, encompassing resistance to change, disruptions in

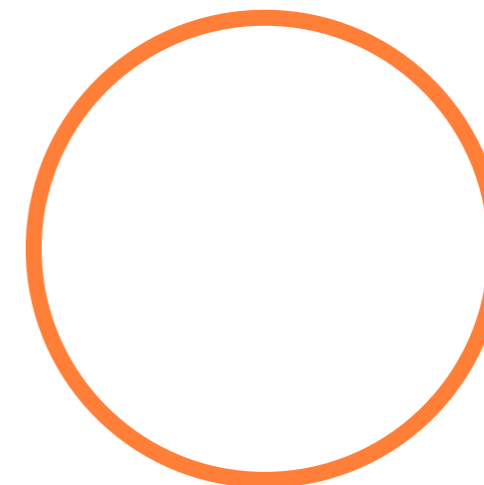
labor markets, insufficient investment, geographical constraints, and the ever-evolving dynamics of global markets. These challenges necessitate the formulation of astute strategies and policies. The recommendations outlined in this document, such as the enforcement of ESG reporting, the facilitation of workforce (re)skilling and training, and the promotion of an Arab Green Deal, present a clear guide for governments and stakeholders to place sustainability at the forefront and to instigate substantive transformations. The voyage toward economic diversification and sustainable transition is intricate, but it is a voyage that must be embarked upon for the sake of our planet and the well-being of future generations. Through collaboration, localization, and investment, we can successfully navigate this transition, ultimately constructing a more robust, inclusive, and sustainable world.

⁶⁹The 'Just Transition': A Fairer Way to Fight Climate Change," Greenpeace UK, accessed November 29, 2023, <https://www.greenpeace.org.uk/challenges/environmental-justice/just-transition/>.

Acknowledgment

The Ministry of Environment and Climate Change and Earthna would like to thank the French Embassy in Doha and the French Business Council in Qatar for their partnership to help bring the 2023 QNDCC to fruition. A special thanks to Qatar National Bank (QNB) for their excellent strategic partnership and support. Finally, Earthna would like to thank the event organizers, volunteers, interns, and moderators who contributed to the success of this year's conference.

Earthna is grateful to the QNDCC panel speakers who enriched the discourse and provided a forum abundant with novel ideas, collaboration, and innovation. These speakers are: Mr. Trevor Allen (Head of Sustainability for Global Markets, BNP Paribas), Mr. Ali Mohammed Al Mohannadi (Executive Director of Business Finance, Qatar Development Bank), Sheikha Amna Mohammed Suhaim Al-Thani (CEO, Strategy Hub Qatar), and Ms. Efi Frager (Head of the Economic Department, French Embassy in Doha).



Contributors

The Ministry of Environment and Climate Change and Earthna would like to thank the following team development of this report: Masah Barakat, Amna Al Thani, and Haajerah Khan. Earthna would also like to thank interns Ayda ElEzaby and Aisha Salat for their assistance in the development of the report.

References

Al-Sarihi, Aisha. "Prospects for Climate Change Integration into GCC Economic Diversification Strategies" LSE Middle East Centre (February 2018).

Azarine, Tiara, and Laura E. Songue. "SUSTAINABLE FINANCE: A TRANSITION FRAMEWORK TO REACH THE SDGs." Sustainable Finance Hub. Accessed November 29, 2023. <https://sdgfinance.undp.org/news/sustainable-finance-transition-framework-reach-sdgs>.

Borawska, Anna. "The Role of Public Awareness Campaigns in Sustainable Development." *Economic and Environmental Studies* 17 (December 2017): 865–77. <https://doi.org/10.25167/ees.2017.44.14>.

Chandy, Laurence. "Economic Development in an Era of Climate Change." Carnegie Endowment for International Peace, January 2023. <https://carnegieendowment.org/2023/01/04/economic-development-in-era-of-climate-change-pub-88690>.

"Climate: World Getting 'Measurably Closer' to 1.5-Degree Threshold | UN News," May 9, 2022. <https://news.un.org/en/story/2022/05/1117842>.

Ellen MacArthur Foundation. "Ellen's Story." Accessed November 29, 2023. <https://www.ellenmacarthurfoundation.org/about-us/ellens-story>.

Eurofound. "European Green Deal," January 2023. <https://www.eurofound.europa.eu/en/topic/european-green-deal>.

European Council. "European Green Deal." Accessed November 29, 2023. <https://www.consilium.europa.eu/en/policies/green-deal/>.

External Relations Staff. "Middle East Can Drive Sustainable Change Through 'Transition Investment' Strategy." New York University Abu Dhabi. Accessed December 3, 2023. <https://nyuad.nyu.edu/en/news/latest-news/science-and-technology/2023/may/til-launch-2023.html>.

G20 Sustainable Finance Working Group. "G20 Sustainable Finance Roadmap." G20 Italian Presidency, 2021. https://g20sfwg.org/wp-content/uploads/2022/01/RoadMap_Final14_12.pdf.

Government Communications Office. "Environment and Sustainability." Accessed November 29, 2023. <https://www.gco.gov.qa/en/focus/environment-and-sustainability/>.

Greenpeace UK. "The 'Just Transition': A Fairer Way to Fight Climate Change." Accessed November 29, 2023. <https://www.greenpeace.org.uk/challenges/environmental-justice/just-transition/>.

Hsiang, Solomon M, and Jina S Amir. "The Causal Effect of Environmental Catastrophe on Long-Run Economic Growth: Evidence From 6,700 Cyclones." Working Paper Series. National Bureau of Economic Research, July 2014. <http://www.nber.org/papers/w20352>.

BNP Paribas. "2022 Integrated Report: Solutions at Scale for a Sustainable World," 2022. <https://integrated-report.bnpparibas/2022/>

International Labour Organization. "Public Employment Programmes (PEPs): Creating Decent Jobs through National Investments." International Labour Organization, 2020. https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_759118.pdf.

International Labour Organization. "World Employment and Social Outlook 2018: Greening with Jobs," May 2018.

Jones, Benjamin, and Benjamin Olken. "The Anatomy of Start-Stop Growth." *The Review of Economics and Statistics* 90, no. 3 (August 2008): 582–87. <https://doi.org/10.1162/rest.90.3.582>.

"Managing Natural Resource Wealth (MNRW-TF)." International Monetary Fund, November 2016.

Meynen, Nick. "Economic Transition." European Environmental Bureau. Accessed November 29, 2023. <https://eeb.org/work-areas/economic-transition/economictransition/>.

O'brien, Kelley. "Making a Splash: The Clean Water Campaign from Grassroots to Mass Media," 2005. <https://api.semanticscholar.org/CorpusID:132308432>.

OECD, WTO, and World Bank Group. "GLOBAL VALUE CHAINS: CHALLENGES, OPPORTUNITIES, AND IMPLICATIONS FOR POLICY," July 2014. <http://www.g20.utoronto.ca/2014/Global%20Value%20Chains%20Challenges%20Opportunities%20and%20Implications%20for%20Policy.pdf>.

Peszko, Grzegorz. "Diversification and Climate Policy Action: Dilemmas of Carbon Intensive Countries in the Uncertain World." Presented at the UNFCCC Conference: Economic diversification and transformation, Doha, Qatar, October 2016. https://unfccc.int/files/cooperation_support/response_measures/application/pdf/managing_carbon_wealth_of_nations-doha_2_oct_2016-final_wb.pdf.

Polack, Anthony. "Enabling Frameworks for Sustainable Energy Transition." Commonwealth Sustainable Energy Transition Services. The Commonwealth, March 2021. https://production-new-commonwealth-files.s3.eu-west-2.amazonaws.com/migrated/inline/Sustainable%20Energy%20Transition%20Series_Enabling%20Frameworks%20for%20Sustainable%20Energy%20Transition.pdf.

PricewaterhouseCoopers. "Is a Green Deal the Middle East's Path to Sustainability?" PwC. Accessed November 29, 2023. <https://www.pwc.com/m1/en/publications/an-incentive-to-action-european-green-deal-and-the-middle-east.html>.

Roman, Camilla. "A Just Transition towards Sustainable Economies and Societies for All." August 2019. <https://unfccc.int/sites/default/files/resource/ILO-JT.pdf>.

"Roundtable on Climate Action and SDG 8: Climate Action That Promotes a Just and Sustainable Transition for All." Katowice, Poland: UN Climate Change, n.d.

Shepherd, Ben, Nasser Saidi, Fadi Salem, Salma Refass, and Aathira Prasad. "Global Economic Diversification Index 2023." Dubai, UAE: Mohammed bin Rashid School of Government, n.d. www.EconomicDiversification.com.

Swiss National Science Foundation (SNSF). "Transition to a Sustainable Economy: Policy Recommendations." Accessed November 29, 2023. <https://www.snf.ch/en/pYpCx9JuUPwBpqBM/news/undefined/en/pYpCx9JuUPwBpqBM/news/transition-to-a-sustainable-economy-policy-recommendations>.

The European Bank for Reconstruction and Development. "EBRD InvestEU Framework for Sustainable Transition." Accessed November 29, 2023. <https://www.ebrd.com/work-with-us/projects/psd/54197.html>.

Thomson, Peter. "Opening Remarks by H.E. Peter Thomson, COP22 High-Level Event: Sustainable Economic Transition and Economic Diversification." UN President of the General Assembly, November 2016. https://www.un.org/en/ga/president/71/pdf/statements/COP22_HLM_Sustainable_Economic_Transition_Diversification_15112016.pdf.

TotalEnergies.com. "Al Kharsaah, A Pioneering Solar Power Plant in

References

Qatar," November 29, 2023. <https://totalenergies.com/projects/solar/al-kharsaah-pioneering-solar-power-plant-qatar>.

UN ESCAP, International Labour Organization, and European Union. "Compendium of Legislation and Institutional Arrangements for Labour Migration in Pacific Island Countries," 2014.

UNCTAD. "Climate Policies, Economic Diversification and Trade." UNCTAD, 2018.

UNDP Climate Promise. "What Is Circular Economy and Why Does It Matter?," April 2023. <https://climatepromise.undp.org/news-and-stories/what-is-circular-economy-and-how-it-helps-fight-climate-change>.

UNDP Climate Promise. "What Is Just Transition? And Why Is It Important?" Accessed November 29, 2023. <https://climatepromise.undp.org/news-and-stories/what-just-transition-and-why-it-important>.

UNFCCC. "Sustainable Economic Transition and Economic Diversification." UNFCCC, n.d. <https://unfccc.int/media/782996/background-economicdiversification.pdf>.

United Nations Climate Change. "Economic Diversification | UNFCCC." Accessed November 29, 2023. <https://unfccc.int/topics/resilience/resources/economic-diversification>.

United Nations Environment Programme (UNEP). "Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication - A Synthesis for Policy Makers." UNEP, 2011.

Vasquez, Glacer, and Rhea C. Hernando. "Transitioning to a Sustainable Economy While Ensuring Inclusion." APEC Policy Support Unit, December 2022. https://www.apec.org/docs/default-source/publications/2022/12/transitioning-to-a-sustainable-economy-while-ensuring-inclusion/222_psu_transitioning-to-a-sustainable-economy-while-ensuring-inclusion.pdf?sfvrsn=1dfa7c7a_2

Wang, Yu-Yun. "Chapter 8 Sustainable Economic Development." In *Inflation and Growth in China*, ch010. USA: International Monetary Fund, n.d. <https://doi.org/10.5089/9781557755421.071.ch010>.

