

ISLAMIC FINANCE AND CLIMATE ACTION

ETHICS, ENVIRONMENTAL STEWARDSHIP AND SUSTAINABILITY

Edited by Mohd Ma'Sum Billah, Razali Haron, Rusni Hassan, Syed Marwan Mujahid Syed Azman, and Akhtarun Naba' Billah



Islamic Finance and Climate Action

In the face of unprecedented global warming and escalating environmental crises, this book offers a comprehensive investigation into the ways Islamic financial principles can contribute to combating climate change. It delves into the significant potential of the Islamic finance industry and showcases its capacity for sustainable and ethical investment that aligns with the global climate change agenda.

The book meticulously discusses the role Islamic finance can play in developing low-carbon and climate-resilient infrastructure, providing readers with a rich blend of theoretical insights and practical methodologies. It underscores the harmony between Islamic ethical finance and ecological care, highlighting their joint role in funding renewable energy and fostering resilient communities. Through insightful case studies and analyses, it positions Islamic finance as a vital player in global climate initiatives. Introducing innovative instruments like green *Sukuk* and evaluating *Waqf* (endowment) for eco-projects, it critically reviews how Islamic financial institutions can further drive climate-positive investments, providing a framework of Islamic climate finance. It analyses the law and policies of Islamic finance governing climate action and puts forward a strategic action plan.

Aimed at scholars, researchers, and academics, this book is an invaluable resource for those seeking to understand and implement Islamic financial solutions in the battle against the global climate crisis. It also serves as an essential guide for policymakers and practitioners committed to steering financial practices towards more sustainable and globally beneficial outcomes, ultimately providing strategic knowledge and practical tools to mobilize resources effectively for the planet's future.

Mohd Ma'Sum Billah is Senior Professor of Finance at the Islamic Economics Institute, King Abdul Aziz University (KAU), Kingdom of Saudi Arabia.

Razali Haron is Professor of Finance at the IIUM International Institute of Islamic Banking and Finance, International Islamic University, Malaysia (IIUM).

Rusni Hassan is Professor of Finance and the Dean at the IIUM International Institute of Islamic Banking and Finance, International Islamic University, Malaysia (IIUM).

Syed Marwan Mujahid Syed Azman is Assistant Professor of Finance at the IIUM International Institute of Islamic Banking and Finance, International Islamic University, Malaysia (IIUM).

Akhtarun Naba' Billah is pursuing with her LLB (Hons) at the Ahmad Ibrahim Kulliyyah of Laws (AIKOL), International Islamic University, Malaysia (IIUM) and she has completed her legal internship at the office of the Chief Justice of Malaysia (Palace of Justice, Putrajaya, Malaysia) in 2025.

Islamic Business and Finance Series

Series Editor: Ishaq Bhatti

There is an increasing need for western politicians, financiers, bankers, and indeed the western business community in general to have access to high quality and authoritative texts on Islamic financial and business practices. Drawing on expertise from across the Islamic world, this new series will provide carefully chosen and focused monographs and collections, each authored/edited by an expert in their respective field all over the world.

The series will be pitched at a level to appeal to middle and senior management in both the western and the Islamic business communities. For the manager with a western background, the series will provide detailed and up-to-date briefings on important topics; for academics, postgraduates, business communities, manager with western and an Islamic background the series will provide a guide to best practice in business in Islamic communities around the world, including Muslim minorities in the west and majorities in the rest of the world.

Islamic Finance and Sustainable Development

Balancing Spirituality, Values and Profit

Edited by Khaliq Ahmad and Datuk Abdelaziz Berghout

Islamic Economics, Growth and Development

Edited by Mustafa Metin Başbay

Islamic Green Finance

Towards Ethical and Environmentally Responsible Investing Edited by Edib Smolo and Muhammad Omer Rafique

Islamic Finance and Climate Action

Ethics, Environmental Stewardship and Sustainability

Edited by Mohd Ma'Sum Billah, Razali Haron, Rusni Hassan,

Syed Marwan Mujahid Syed Azman, and Akhtarun Naba' Billah

For more information about this series, please visit: www.routledge.com/Islamic-Business-and-Finance-Series/book-series/ISLAMICFINANCE

Islamic Finance and Climate Action

Ethics, Environmental Stewardship and Sustainability

Edited by Mohd Ma'Sum Billah, Razali Haron, Rusni Hassan, Syed Marwan Mujahid Syed Azman, and Akhtarun Naba' Billah



First published 2026 by Routledge 4 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

and by Routledge 605 Third Avenue, New York, NY 10158

Routledge is an imprint of the Taylor & Francis Group, an informa business

© 2026 selection and editorial matter, Mohd Ma'Sum Billah, Razali Haron, Rusni Hassan, Syed Marwan Mujahid Syed Azman and Akhtarun Naba' Billah; individual chapters, the contributors

The right of Mohd Ma'Sum Billah, Razali Haron, Rusni Hassan, Syed Marwan Mujahid Syed Azman and Akhtarun Naba' Billah to be identified as the authors of the editorial material, and of the authors for their individual chapters, has been asserted in accordance with sections 77 and 78 of the Copyright, Designs and Patents Act 1988,

All rights reserved. No part of this book may be reprinted or reproduced or utilised in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

Trademark notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

British Library Cataloguing-in-Publication Data
A catalogue record for this book is available from the British Library

ISBN: 978-1-032-94471-5 (hbk) ISBN: 978-1-032-94473-9 (pbk) ISBN: 978-1-003-57093-6 (ebk) DOI: 10.4324/9781003570936

Typeset in Times New Roman by Apex CoVantage LLC This book is dedicated to the remembrance of my most beloved parents Allamah Mufti Nur Mohammad (r) and Ustazah Akhtarun Nisa' (r), who have nourished me with their love and wisdom. May Allah (swt) shower them with His Love and Mercy and grant them Jannat al-Ferdaus. I would also like to dedicate this book to my lovely wife Dr Khamsiah Nawawi (Head, OSHE-Hospital UKM) and our heart-touching kids Dr Ahmad Mu'izz Billah, Dr Erra Aqeela Binti Ismail, Eng Ahmad Mu'azz Billah (Cybersecurity & AI Engineer), Ahmad Muniff Billah (BSc Honors in Aviation Management and Piloting) and winner of Gold Medal Award 2023 in his outstanding Innovative Research Project besides he is a certified Pilot, and Hjh Akhtarun Naba' Billah (Pursuing with her LLB Honors, IIUM), for their continuous supports and sacrifices.

May all be blessed with Muwaddau Wa Rahmah, Qurratu A'yun and Mardhaati Allah (swt) in the life and the next.

This book is also dedicated to the Ummah and the whole of humanity.

Mohd Ma'Sum Billah, PhD

Infinite gratitude to my loving parents (Al-Fatihah), family, and my teachers for their care and wisdom. May Allah (SWT) grant them the best reward in life and the day after. Also, for the endless support and trust entrusted in me by the Institute of Islamic Banking and Finance (IIUM) for their mission to be the Centre of Excellence.

Razali Haron, DBA

A special dedication to my parents, my extended family, my teachers, and Murabbi who inspired, guide and shape me to be the person I am today. A special thanks also to the Institute of Islamic Banking and Finance (IIUM) team members for their unwavering support in bringing the Institute to a higher level. May Allah provide us with the fortitude and dedication to contribute to the well-being of our institution and to the Ummah.

Rusni Hassan, PhD

This book is a testament to the pursuit of knowledge and invaluable contributions. With profound respect and gratitude to my mentors, I have grown as a scholar and thinker dedicated to the quest for knowledge under your guidance. To the readers, this book is a product of collective research that characterizes our field, and I hope it contributes meaningfully to our ongoing dialogue and contribution to society. Finally, I dedicate this to my family, whose unwavering support for me in seeking knowledge.

Syed Marwan Mujahid Syed Azman, PhD

This book is dedicated to the Ummah for the cause of Islam and humanity. I am deeply indebted to my beloved parents, my lovely brothers, respected teachers and friends whose direct and indirect support and continuous encouragement aspire me with wiser vision towards knowledge, wisdom, and humanitarian concern. May all be blessed with success and happiness in this life and the hereafter.

Akhtarun Naba' Billah, LLB (Hons)

Contents

	List of tables	xiii
	List of figures	xiv
	About the editors	xv
	Acknowledgement	xix
	Foreword	xxi
	Preface	XXIII
	List of contributors	xxv
	Introduction	1
70 A		
	RT I orld view of Islamic finance mind-set for climate action	3
1	World view of Islamic finance mind-set for climate action SYED MUSA ALHABSHI	5
2	Islamic world view towards a green economy NUR FARHAH MAHADI	19
3	Maqasid al-Shariah, Islamic finance, and climate action ABDULMAJID OBAID HASAN SALEH AND YOUNES SOUALHI	30
4	Environmental Waqf for climate action in the light of	42
	Maqasid al-'Imran: (Hifz al-'Imran or Hifz al-Bi'ah)	42
	HABEEBULLAH ZAKARIYAH, RUSNI HASSAN,	
	AND FATIMALI MOHAMAD NOOR	

x Contents

	Slamic financial law and policies for climate action	55
	5 Climate change through regulatory frameworks: how does Shariah matter? SYARAH SYAHIRA MOHD YUSOFF, RUSNI HASSAN, SITI SAFFA' SHAHARUDDIN, AND IEMAN HUDA ADNAN	57
(6 Green financing policies in Malaysia: response from Islamic finance rusni hassan, nazrul hazizi noordin, ieman huda adnan, and siti nursyawani misman	71
7	7 Corruption and its implication on climate action: the role of Islamic ethics ZUHAIRAN YUNMI YUNAN, YOGHI CITRA PRATAMA, AND ERIKA AMELIA	81
	ART III trategic action plan of Islamic finance for climate action	93
8	Islamic finance initiative for climate action SYED MARWAN AND KHALIFAH MUHAMMAD ALI	95
9	Islamic finance and climate mitigation MUHAMMAD FARRAS HANIF AND RAZALI HARON	108
10	Environmental Waqf for climate action fatimah mohamad noor, rusni hassan, and habeebullah zakariyah	118
11	Islamic finance and climate change resilience EARLY RIDHO KISMAWADI	128
Ro	RT IV le of Muslim governments towards climate action: gional case studies	139
12	Role of green Sukuk towards climate sustainability: cases in selected Muslim countries SAHEED ABDULLAHI BUSARI, AKHTARZAITE ABDUL AZIZ. AND LUQMAN ZAKARIYAH	141

AND HABEEBULLAH ZAKARIYAH

xii Contents

20	The role of Microtakaful in building climate resilience for micro, small, and medium-sized enterprises (MSMEs):	
	lessons for Malaysia	238
	MILANIE MOHD NOR AND NAZRUL HAZIZI NOORDIN	
21	Impact analysis of Islamic bank financing for climate action NUR HARENA REDZUAN, EMIR CAMDZIC, AND AZNAN HASAN	248
	Index	263

Tables

3.1	Mobilizing Islamic Banking for Climate Action	33
3.2	The Shariah Framework for Environmental Preservation	
	through Islamic Finance	34
3.3	Examples of Green Sukuk Projects in Islamic Countries	35
3.4	Experiences of Countries in Environmental Waqf for Natural	
	Resource Conservation	36
3.5	Modern Contracts and Islamic Shariah's Environmental and	
	Waste Reduction Goals	38
12.1	Common Themes, Convergent Trends, and Methodologies from	
	Recent Studies	143
12.2	SWOT Analysis for the Role of Green Sukuk towards Climate	
	Sustainability	150
13.1	GCC and MENA, Islamic Climate Finance, Sustainability	
	Actions and Their Impacts	163
16.1	List of Variables, Their Definitions, and the Data Source	197
16.2	Descriptive Statistics	198
16.3	Pearson Correlations	199
16.4	Results of Variance Inflation Factors (VIF)	199
16.5	Islamic Bank Financing and Renewable Electricity Production	200
17.1	Differences between Blue Sukuk and Blue Bond	208
21.1	Comparison of Mayank, CIMB, and IsDB Providing Financing	
	for Climate Change	254

Figures

2.1	Green Economy, SDGs, and Magasid al-Shariah	24
2.2	Multi-Stakeholder Partnership	25
2.3	Islamic Eco-Ethics	26
11.1	Green Bonds Issued Worldwide from 2014 to 2023 (in Billion USD)	130
13.1	Islamic Climate Finance Framework	157
16.1	Global Investment in Energy Transition	194
19.1	Islamic Finance and Climate Resilience Cycle	232
19.2	Islamic Finance Role in Climate Change Mitigation:	202
	A Sustainable Approach	235

About the editors

Mohd Ma'Sum Billah, DBA, PhD, MBA, MCL, MMB, LLB (Hons)

He is Senior Professor of Finance, Insurance, Fintech and Investment, Islamic Economics Institute, King Abdulaziz University, Kingdom of Saudi Arabia. Billah has concurrently been affiliated as adjunct professor, examiner, assessor and reviewer in numerous reputable universities in the West, Middle East, ASEAN and African countries. Earlier, he had been a member of the Audit Board of ACIG (approved by the Saudi Monetary Authority/Central Bank of Saudi Arabia), Saudi Arabia. Billah has served and contributed to both academic and corporate industries and international organizations for more than 28 years, with management, teaching, research, solution-providing and sharing of strategic and technical know-how towards the advancement of Islamic finance, fintech, business, investment, capital market and insurance (Takaful), besides Halal standards. Billah has published more than 40 books and chapters in books, as well as more than 200 articles in international, regional, and local reputable journals and social media. Most of his books were published by world-leading publishers, namely: Thompson Reuters, Sweet & Maxwell, Palgrave Macmillan, Springer, Routledge, Edward Elgar and others. Most of his books and articles are used as key references (solutions to reality) by universities, industries, professional firms, governments, policymakers, regulators, NGOs, academia, researchers and students of higher learning in different parts of the contemporary world. He has presented in more than 300 conferences, seminars, executive workshops, professional development and industrial training events in different parts of the world. In addition, he has also been affiliated with corporate, academic and financial industries, including central banks, international corporate organizations, governments and NGOs, in his capacity as a board member, director, advisor, strategic decision maker, transformer and reformer with strategic solutions and technical know-how. Among the areas of his interest and contributions are Islamic finance, insurance (takaful), crowd-funding, investment, Zakat, Waqf, capital market (Sukuk), social finance, SDGs, petroleum finance, trade, fintech, e-commerce, crypto-asset, cryptocurrency, industrialization, privatization, PPP, benchmarking and national entrepreneur models, standards, policies, strategies and technical know-how.

Razali Haron, DBA

Razali Haron obtained DBA (Finance) from UKM in 2012 and is currently Professor at the HUM Institute of Islamic Banking and Finance, International Islamic University Malaysia (IIUM). Prior to joining IIUM in 2003, he had extensive industrial experience for almost 13 years, covering the capital market, portfolio management, unit trust industry and merchant banking in Malaysia. He served as a member of the IIUM Investment Sub-Committee from 2012-2021. His research areas include corporate finance, capital market and portfolio management. Razali has published his research with reputable international publishers such as Emerald, Elsevier, Sage, Springer, Inderscience and Palgrave Macmillan. Being an active researcher, he has received many awards from IIUM, including the Best Researcher Award (2014), Best Indexed Journal Article (2014), Highest Citation in Citation Index Journal (Social Science) (2015, 2023, 2024), Top 250 Contributors to IIUM Research Performance (2015-2017), Highest Number of Publications Award (2019), Top 30 Contributors to HUM Research Performance (2019 and 2021), and Top 50 Contributors to IIUM Research Performance (2022). He also received the Emerald Literati Award (2020 - Emerald Publisher) and Researcher Award from Universiti Malaysia Sabah. He is currently the Head of Responsible Research at the Institute. He has edited seven research books: Islamic Fund and Wealth Management (2019 - IIUM), Banking and Finance (2020 - IntechOpen, UK), Financial Crises and Solutions (2023 - IntechOpen, UK), Islamic Social Finance and Economic Recovery After a Global Health Crisis (2021 - IGI Global). and three edited books with Routledge. Razali is currently an Advisory Editorial Board Member of The Capital Market Review (Malaysia Finance Association) and Journal of Open Innovation: Technology, Market, and Complexity (Elsevier), and is an auditor for Malaysia Research Assessment (MyRA) by the Ministry of Higher Education Malaysia (MOHE).

Rusni Hassan, PhD

Rusni Hassan, who is listed among the Top 10 Most Influential Women in Islamic Business and Finance globally, serves as the Dean of the HUM Institute of Islamic Banking and Finance, International Islamic University Malaysia (HUM). She is an active researcher and expert trainer in IBF. Having nearly 30 years of academic experience, she has taught, published, and supervised academic work, especially in the areas of *Shari'ah*, governance and legal aspects of Islamic banking and finance. Her publications include books on Islamic banking and finance, chapters in books, and articles in local and international journals. She is listed among top 10 contributors to research in Islamic finance in the Scopus database. She is actively involved in the industry as Chairman and member of *Shari'ah* committees and boards of directors of Islamic financial institutions locally and internationally. Her work and contributions to Islamic finance were internationally recognized by the Government of Maldives, which awarded her the National Recognition for Outstanding Contribution of Females to Develop and Sustain the Islamic Finance Industry in

Maldives in 2018. She has been listed among the top women in Islamic Finance since 2013, and was listed among the Top 50 Most Influential Women in Islamic Finance 2018; Top 10 Most Influential Women in Islamic Business and Finance in 2019, 2020 and 2021; and as a Women Influencer 2022 by Cambridge IFA.

Syed Marwan Mujahid Syed Azman, PhD

Syed Marwan is Assistant Professor at the Institute of Islamic Banking and Finance, International Islamic University Malaysia. He holds Bachelor of Commerce in Economics and Finance from the University of Melbourne and the Chartered Islamic Finance Professional (CIFP) certification from International Center for Education in Islamic Finance (INCEIF). He completed his PhD in Islamic Finance at IIUM, specializing in social impact and sustainability. He also holds leadership responsibilities at the Office for Strategy and Institutional Change (OSIC) at IIUM, where he oversees strategic planning and institutional performance improvement initiatives aimed at strengthening the university's global standing and impact. He was an InterRussia Fellow based in Moscow, contributing to the development of Islamic finance markets and fostering international collaboration. He has been invited as a speaker and panellist to share his insights at international conferences in the Philippines, Pakistan, and other countries. He previously served at Kuwait Finance House and Maybank, where he worked closely with leadership in finance and human resource strategy. He has also contributed to policy and advisory work with regulators and financial institutions. His industry experience enriches his research, which focuses on ethical finance, social impact measurement, and integrating sustainability and Magasid al-Shariah into Islamic finance practices. He combines academic inquiry with practical insights to promote Islamic finance as a transformative force for a just, inclusive, and sustainable future.

Akhtarun Naba' Billah

She is currently pursuing her LLB (Hons) at the Ahmad Ibrahim Kulliyyah of Laws (AIKOL), International Islamic University, Malaysia (IIUM). She has continuously been awarded the Dean's List, both at the Foundation (Law) level and at the ongoing tertiary level (LLB Hons). She also holds the position of Vice President of the English Debating Club, International Islamic University Malaysia. Previously, she served as Head of the English Motivational Committee at MRSM, Kuala Klawang, Malaysia. She was also the captain of the netball team at the district level of Kuala Klawang, Negeri Sembilan. She is part of the MRSM alumni. She has also been in the Dean's list both in the foundation (Law) studies as well as in her tertiary education (LLB hons). She has completed her legal internship at the office of the Chief Justice of Malaysia (Palace of Justice, Putrajaya, Malaysia) in 2025. Her research and publications include "Bond Market: How Does Shari'ah Ruling Matter?," published in the Journal of Islamic Banking and Finance, Vol. 40, April–June 2023, No. 2, pp. 11–22. She is in the editorial (author) team of a book with scientific research entitled: Islamic Green Finance: A Research Companion,

xviii About the editors

published in 2024 by Routledge, Taylor & Francis Group, UK. She has also written a scientific chapter on "Law Reform Affecting Islamic Green Finance. How Does It Structure?," which was published in *Islamic Green Finance: A Research Companion*, 2024, Routledge, Taylor & Francis Group, UK, pp. 89–98. She is also in the editorial (author) team of the book with scientific research entitled *Mobilizing Islamic Finance for Climate Action: Law, Policies, Strategic Action Plan and Impact Analysis*, published in 2025 by Routledge, Taylor & Francis Group, UK.

Acknowledgement



There is no strength and power except in Allah (swt), To Him comes the praise, the Savant, the Wise, the Omniscient, the most beautiful names belong to Him. May the blessing of Allah (swt) and peace be upon Muhammad (saw) and all the Prophets (aws) from the first to the last.

I am humbly privileged to acknowledge King Abdulaziz University, Kingdom of Saudi Arabia and its prestigious wing Islamic Economics Institute for supporting us with every facility in research, academic, human capital and professional development activities outreaching the global Ummah. It is also a great honour for me to humbly acknowledge His Excellency Professor Dr. Tareef Yusuf Al-Aama, President of King Abdulaziz University, Professor Dr Amin Yousef Mohammad Noaman, the Vice President of King Abdulaziz University and Dr. Albara Abdullah Abulaban, the Dean of the Islamic Economics Institute (IEI), King Abdulaziz University (KAU), Dr. Almutasem Billa Allam (Vice Dean, IEI-KAU), Dr Alaa AlShaikh (Vice Dean, IEI-KAU), Dr Adnan M. A. Al-Khiary (Head, Department of Finance, IEI-KAU), Dr Abdulrhman Alamoudi (Head, Department of Economics, IEI-KAU), Dr Abdullah alUtaiby (Head, Department of Insurance, IEI-KAU), my talented colleague Mr Mohammed Alabdulraheem (Lecturer in FinTech and Islamic finance, IEI-KAU), Mr Majed Ahmad AlSahafi (Director of Administration, IEI-KAU), my other colleagues and friends from IEI-KAU and other places around the world including S.M. Jalal Uddin (Rtd-Lecturer), Mr Faruk Miah (Rtd-Army officer) and Mr Sardar Golam Mostofa. I would like to express my thanks with appreciation to universities, institutes, academies and professional firms whose direct and indirect supports with knowledge, experiences and resources are full-heartedly recorded.

Mohd Ma'Sum Billah, PhD

My acknowledgement goes to the Institute of Islamic Banking and Finance and IIUM for the continuous support in producing high-impact research. This book would not have been feasible without the guidance and facilitation of Prof Dr Mohd Ma'Sum Billah, to whom the Institute is very grateful. Lastly, my appreciation goes to Prof Dr Rusni Hassan, Dean of the Institute, and all authors for their full cooperation in ensuring the success of the publication.

Razali Haron, DBA

I would like to acknowledge the International Islamic University Malaysia (IIUM) and the Institute of Islamic Banking and Finance, IIUM, for their support with every facility in research, academic, human capital and professional development activities, outreaching the global Ummah. It is also a great honour for me to humbly acknowledge Honourable Rector Prof Emeritus Datuk Dr Osman Bakar, and the University Management Committee, especially Deputy Rector (Research, Innovation and Development) Prof Dr Mohamed Aslam Bin Mohamed Haneef, and Prof Ahmad Faris Ismail, Deputy Rector (Academic & Internationalization) for their unwavering support to us, especially in research and publication. My special thanks and appreciation go to every single member of the Institute team, especially my Head of Responsible Research, Prof Dr Razali Haron, and Dr Syed Marwan Mujahid Syed Azman, who are also the co-editors of this book. This book would not have been possible without the support, assistance, and facilitation of the respected Prof Dr Mohd Ma'Sum Billah, the lead editor of this book, to whom my gratitude and full-hearted thanks go. My heartfelt acknowledgement to all individuals, researchers, scholars, institutions and organizations who are passionate about research and publication, especially in Islamic banking and finance, to serve the industry and *Ummah*.

Rusni Hassan, PhD

All praise be to Allah (swt) for His endless guidance and mercy. I sincerely thank the International Islamic University Malaysia (IIUM) and the Institute of Islamic Banking and Finance (IIiBF). My deepest appreciation goes to Prof Dr Mohd Ma'Sum Billah for his leadership in this publication. I am also grateful to Prof Dr Rusni Hassan, Dean of IIiBF, and Prof Dr Razali Haron for their constant support and encouragement. I extend my thanks to fellow scholars and colleagues who have contributed to this volume. May Allah (swt) accept these efforts and reward all who have contributed.

Syed Marwan Mujahid Syed Azman, PhD

All praises be to Almighty Allah (*swt*). My sincere thanks go to the honourable editorial members (Prof Datin Dr Rusni Hassan, Prof Dr Razali Haron, Asst Prof Dr Syed Marwan Mujahid Syed Azman and Prof Dr Mohd Ma'Sum Billah) for giving me the opportunity to be part of the team, and special dedication to my beloved parents, lovely brothers, respected teachers, and friends for their continuous guidance and motivation in my pursuit of knowledge. I am also indebted to Ahmad Ibrahim Kulliyyah of Laws (AIKOL) and the International Islamic University Malaysia (IIUM) for their great support and contributions towards equipping us with holistic knowledge and wisdom.

Akhtarun Naba' Billah, LLB

Foreword

It is my honour and privilege to be asked to write this *Foreword*. We are at a critical juncture where climate change poses an existential threat to our planet and requires massive new investments. Recent analyses warn that vulnerable countries may need up to half a trillion dollars each year by 2030 for mitigation and adaptation. This gap underscores the urgent need for innovative finance. An Islamic finance that understands its genuine foundations to be rooted in the pillars of *khilafah* (vicegerency/stewardship), justice and well-being for all, offers a path to channel investment into sustainable projects.

Islamic finance – grounded in the Shariah – explicitly forbids exploitative or harmful investments and promotes justice and public welfare. Under its rules, riba (that includes financial interest) and uncertainty (gharar) are prohibited, while wealth must be circulated for the common good. Tools like obligatory charity (zakat) and endowments (waqf) further ensure that funds are channelled to uplift communities and support socially beneficial initiatives. Islamic finance's fundamental objectives, aligned to the Maqasid al-Shariah (higher objectives of the Shari'ah), include preserving life, property, and the natural environment – hence protecting creation as a whole. Today, Islamic finance is a large and growing global industry, on the order of several trillion dollars in size. This scale means that even partial realignment of Islamic capital towards green and climate initiative investments could make a significant impact.

I congratulate the editors and authors for this remarkable compilation. Their interdisciplinary effort, which spans economics, ethics, law, environmental science, and social finance, is evident of the editors' realization that Islamic finance has a bigger role to play than just shareholders' wealth. Drawing on international case studies and rigorous analysis, the book demonstrates how Islamic finance can help fill the climate finance gap. Their scholarship succeeds in framing climate action as an opportunity to fulfil the higher objectives of Islamic economics and finance. This book shows how Islamic ethics can inform cutting-edge climate solutions and stands as a guide for students, industry experts, and policymakers.

In closing, I thank all those who brought this work to fruition. *Mobilizing Islamic Finance for Climate Action* is a timely and important contribution. It exemplifies how financial innovation, which is guided by faith-based values, can advance global sustainability. I hope readers will draw on its insights and join the effort to

xxii Foreword

harness Islamic finance in service of the planet. May we see a future where preserving the environment is recognized as central to developing a sustainable, humane economy.

Prof. Dr. Mohamed Aslam Bin Mohamed Haneef

Deputy Rector (Research, Innovation and Development) International Islamic University Malaysia (IIUM), Malaysia

Preface

In an era marked by increasing environmental challenges, climate action is a focal topic. It deals with a broad range of issues that relate to the urgent threats posed by climate change and how those threats are to be mitigated. Moreover, Islamic finance, a financial system that adheres to principles under Shariah law, offers financial innovation solutions for climate change mitigation. In Islamic finance, the goal is to address and foster socio-economic development and growth that is inclusive and environmentally sustainable. Specifically for climate action, the objective of Islamic finance is to achieve the Maqasid al-Shariah as Man was entrusted with Amanah (Trust) by the Creator as Khalifah of the Earth. Islamic finance includes a variety of financial services and products to support projects and initiatives with a positive environmental impact. By channelling capital towards such projects, Islamic finance plays an important role in mitigating the effects of climate change and advancing global sustainability. This highlights the nexus between Islamic finance and climate action, emphasizing the fundamental principles of risk sharing, ethics, good governance and sustainability. Therefore, Islamic finance is an essential and effective approach to climate action to address the impact of climate change. This includes investments in renewable energy, energy efficiency, sustainable agriculture, conservation efforts, and climate change adaptation. These efforts can range from policy changes to individual actions and involve various sectors.

Based on the importance of Islamic finance in dealing with climate change problems facing mankind, this book attempts to discuss how Islamic finance can be mobilized for climate mitigation. This book, titled "Mobilizing Islamic Finance for Climate Action," is organized into Six Parts with Twenty-One important chapters, while having a specific introduction and index at the end.

Part I focuses on the world view of the Islamic finance mind-set for climate action. In this part, the chapters are divided into four important chapters. Chapter 1 provides the discussion relating to the world view of the Islamic finance mind-set for climate action. Chapter 2 discusses the Islamic world view towards a green economy. Chapter 3 evaluates the inter-play between Maqasid al-Shariah, Islamic finance and climate action. Chapter 4 explains environmental Waqf for climate action from the perspective of Maqasid al-Imran.

Part II discusses the Islamic financial law and policies for climate action. This part has three chapters. Chapter 5 evaluates climate change through regulatory and

Shariah frameworks. *Chapter 6* discusses green financing policies and the response from Islamic finance in Malaysia. *Chapter 7* presents the role of Islamic ethics in combating corruption and its implication on climate action.

Part III discusses the strategic action plan of Islamic finance for climate action. Chapter 8 explains the Islamic finance initiative for climate action. Chapter 9 discusses Islamic finance and its action plan for climate mitigation. Chapter 10 analyses how environmental Waqf is to be strategized for climate action. Chapter 11 elaborates Islamic finance and climate change resilience.

Part IV highlights the role of Muslim governments towards climate action based on regional case studies. In this part, the chapters are divided into four important chapters. Chapter 12 features the role of green Sukuk towards climate sustainability. Chapter 13 explains Islamic finance for climate action and sustainability. Chapter 14 discusses projects towards climate action in BRICS. Chapter 15 examines initiatives for climate action undertaken by the GCC countries.

Part V explains the mobilization of Islamic finance for climate action. Chapter 16 provides empirical evidence on Islamic bank financing and renewable electricity production. Chapter 17 discusses how Islamic finance can promote the blue economy. Chapter 18 elaborates the instruments available in Islamic finance for climate actions.

Part VI is about the impact analysis of Islamic finance for climate action. This part has three chapters. Chapter 19 discusses Islamic finance risk analysis and climate change. Chapter 20 highlights the role of microtakaful in building climate resilience for MSMEs. Chapter 21 performs an impact analysis of Islamic bank financing for climate action.

Contributors

- Nik Anis Idayu Nik Abdullah, PhD, graduated from the Institute of Islamic Banking and Finance, IIUM. She has a master's degree in accountancy and Association of Chartered Certified Accountants (ACCA) studies from Universiti Teknologi MARA (UiTM). She has published articles and research papers on topics related to environmental, social, and governance (ESG) and corporate finance. With over a decade of academic experience as a lecturer in UiTM, she continues exploring the associations between ESG practices and their impact on firms through empirical studies and data-driven analysis.
- Nik Anis Sazwani Nik Abdullah, PhD, is Senior Lecturer at UNITAR University College Kuala Lumpur (UUCKL). She holds a doctorate in Business Management, Master of Business Administration (MBA), Bachelor of Business Administration, and a Diploma in Accounting.
- Ieman Huda Adnan is a dedicated researcher in Islamic banking and finance. She holds a master's degree in Islamic Banking and Finance from the Institute, and a double bachelor's degree in Shariah and Law. Her research spans Shariah governance, ESG policies, cryptocurrency regulation, and Islamic social finance. She has actively presented and published at notable international conferences. Her experience includes Shariah research roles at AEON Digital Bank and Silverlake Axis. She currently serves as an Executive (Shariah Research Governance and Training) at Bank Rakyat Malaysia.
- Syed Musa Alhabshi, PhD, is Associate Professor at the IIUM Institute of Islamic Banking and Finance in the field of accounting and finance in Islamic financial services. He obtained a Bachelor of Business Administration (IIUM, 1989) and a Doctor of Business Administration (Strathclyde, UK, 1994). He has served as academic Dean for business faculties, graduate business schools and institutes in both public and private universities. His involvement in the Islamic financial industry includes AAOIFI Standards Board, Islamic Financial Services Board (IFSB) Consultants, as well as Board Member and Shariah Advisory Committee roles at the Securities Commission, Labuan Financial Services, and other international and local Islamic financial institutions. As an academic, he has served on Academic Accreditation Panels for Islamic finance academic and

professional programs for both international and local accreditation agencies. His current passion is curriculum design and development, alongside teaching, researching and publishing on emerging issues relating to accounting, auditing, and risk in both Islamic financial institutions and *Waqf* institutions.

Khalifah Muhammad Ali, PhD, is the Head of the Department of Islamic Economics at the Faculty of Economics and Management, IPB University, Indonesia. His academic and professional work centres on Islamic economics, social finance, and sustainability. He is also actively involved in community development through waqf-based environmental initiatives. He earned his bachelor's degree in Forest Management from IPB University, a Diploma in Arabic Language from Al-Imam Muhammad Ibn Saud Islamic University (LIPIA), and a master's degree in Islamic Economics and Finance from the University of Indonesia. He completed his PhD at IIUM, focusing on the intersection of Islamic finance and environmental sustainability. Khalifah is the founder of the Bogor Waqf Forest Foundation and has served since 2022 as a member of the Environmental and Natural Resources Council under the Indonesian Ulema Council (MUI). His work reflects a strong commitment to integrating Islamic principles with ecological preservation.

Mohammad Mahbubi Ali, PhD, is currently Assistant Professor at the IIUM Institute of Islamic Banking and Finance, Malaysia. He obtained his PhD in Islamic Banking and Finance from the Institute, master's degree in Islamic Finance from International Center for Education in Islamic Finance (INCEIF), Malaysia, and bachelor's degree in Shariah Finance (Islamic Economics) from Tazkia Institute, Indonesia. Prior to IIUM, he was a Research Fellow at IAIS Malaysia and a researcher at International Shariah Research Academy for Islamic Finance (ISRA), Malaysia. He is currently a Member of the Shariah Committee (CIMB Islamic) and former Chairman of Shariah Committee (Affin Islamic Bank Berhad), Islamic Finance Expert (Brunei Darussalam Central Bank), Member of Shariah Committee (FWD Takaful Sdn Bhd), and Member of the Curriculum Review Committee (AAOIFI, Bahrain).

Fahd Al-Shaghdari, PhD, currently serves as Assistant Professor at the Institute of Islamic Banking and Finance (IIiBF), International Islamic University Malaysia. His academic journey includes a Doctor of Philosophy (PhD) in Islamic Banking and Finance from Al-Madinah International University Malaysia, a master's degree in the science of finance from the International Islamic University Malaysia, and a bachelor's degree in Business Administration (Hons), specializing in Banking and Finance, from Multimedia University (MMU), Malaysia. With nearly a decade of academic experience, he has actively contributed to the field. His expertise spans a broad spectrum, including banking and finance, Islamic banking, financial technology, cryptocurrency, blockchain, social finance, green finance, stock evaluation and structural equation modelling. His unwavering commitment to advancing knowledge in these multifaceted areas underscores his significant contributions to the academic domain, solidifying his standing as a highly esteemed figure in the field of Islamic finance.

Erika Amelia, PhD, specializes in Islamic banking, Shariah economics, and accounting, with research interests in Islamic financial reporting, governance, and Maqasid Shariah integration. She has over 20 years of experience in higher education and currently serves as the Vice Dean for Administration at the Faculty of Economics and Business, UIN Syarif Hidayatullah Jakarta. She earned her doctoral degree in Islamic Economics and Finance and has consistently contributed to academic excellence through her leadership, teaching, and research. Erika has authored numerous scholarly publications, including national and international journal articles, academic books, and instructional modules, particularly in the areas of Islamic financial management and accounting standards. She is frequently invited to speak at seminars, provide expert training, and engage in collaborative research initiatives. Her expertise is grounded in both theoretical knowledge and practical application, supporting the development of Shariah-compliant financial practices in Indonesia. She is committed to advancing ethical, inclusive, and sustainable Islamic economic systems.

Akhtarzaite Abdul Aziz, PhD, is Assistant Professor in the Department of Fiqh and Usul al-Fiqh at International Islamic University Malaysia (IIUM). Dr Akhtarzaite holds a bachelor's degree in LLB and LLB (Shariah) (1994 and 1995, respectively). She obtained a master's degree in Fiqh and Usul al-Fiqh (2000), and a PhD in Fiqh and Usul al-Fiqh (2015), all from IIUM. She is also a member of the Shariah Advisory Council of the Securities Commission Malaysia and chairs the Shariah Committee of Prudential BSN Takaful Berhad. She has been a Shariah Committee member at Maybank Islamic since March 1, 2020, and became Chairman on May 1, 2024.

Syed Marwan Mujahid Syed Azman, PhD, is Assistant Professor and Coordinator at the Institute of Islamic Banking and Finance, IIUM. He obtained his PhD in Islamic Banking and Finance from the Institute, researching the area of social impact, Prior to that, he completed the Chartered Islamic Finance Professional (CIFP) at the International Center for Education in Islamic Finance (INCEIF), after graduating with a degree in Commerce (Economics and Finance) from the University of Melbourne. His industrial experience includes working at Kuwait Finance House (KFH) Research as an analyst and at the Maybank Group as a fellow under the CEO@Faculty program. His research interests are in Socially Responsible Investment (SRI), Social Impact Bonds (SIB), and impact measurement. He has published multiple papers in these areas and embarked on research projects, namely "Social Impact Performance Measurement Model for Islamic Financial Institutions: Integrating Sustainable Development Goals (SDGs), Value-Based Intermediation (VBI), and Magasid Shari'ah" and "Humanitarian Sukuk: Developing an Alternative Financial Tool in Addressing Refugee Crisis," both funded by the Fundamental Research Grant Scheme (FRGS).

Saheed Abdullahi Busari, PhD, obtained his bachelor's degree in Arabic and Islamic Studies from Al-Azhar University, followed by a postgraduate diploma in Islamic Law from America Open University, Cairo. He obtained his master's

and PhD degrees in Figh and Usul al-Figh at the International Islamic University Malaysia (IIUM). He has been working as Associate Professor of Islamic Jurisprudence and Legal Theory at IIUM since 2020. His primary research focuses on the intersection of Islamic jurisprudential principles and socio-economic realities. He has taught courses in Principles of Islamic Jurisprudence, Islamic Jurisprudence of Transactions, Islamic Capital Market, Islamic Family Law, Inheritance and Endowment and Sustainability. He has published his academic works in indexed journals, demonstrating the relevance and application of Islamic revealed knowledge to contemporary issues. He welcomes collaboration on fundamental and applied multidisciplinary research from an Islamic jurisprudential perspective.

Emir Camdzic, PhD, is presently the MBA Islamic Finance and Risk Management Programme Lead at the University of Greater Manchester, United Kingdom. He holds a doctorate in Islamic Finance, BA in Islamic Studies, and master's degree in Islamic Banking, Finance and Management. Emir Camdzic currently serves as a Member of the Board of Trustees (International British Waqf) and holds multiple advisory positions in the industry, including a tenure at Al Rayan Bank.

Mohammad Habibullah, PhD, is currently an Academic Fellow at the Institute of Islamic Banking and Finance, IIUM, specializing in Shari'ah, mu'amalat, Islamic social finance (zakat and waqf management), Islamic wealth management, Islamic jurisprudence, and Islamic commercial law. He obtained his master's degree and PhD in Islamic Revealed Knowledge and Heritage (Qur'an and Sunnah) from IIUM. He was a recipient of the Rector Scholarship Award in 2014 from IIUM during his PhD program. Habibullah also completed his post-doctorate at the Institute. He is lecturing on various subjects for master's and PhD students at the Institute, such as Islamic Jurisprudence, Islamic Commercial Law, and Islamic Social Finance. Habibullah has published in reputable journals and with reputable publishers for book chapters. He has presented more than 20 conference papers at local and international conferences.

Abdul Razak Abdul Hadi, PhD, is a professor and currently serves as the Deputy Dean of Internationalization, Institutional and Industrial Partnership at Universiti Kuala Lumpur Business School. His research areas are in financial markets, corporate finance, investment, banking, Islamic finance, and entrepreneurship. His expertise also extends to advising numerous small and medium-sized enterprises (SMEs) across Malaysia. He is an active member of several professional bodies, including the Malaysian Finance Association (MFA), the Asian Academy of Management (AAM), and the ASEAN International Business Research Group (AIB).

Muhammad Farras Hanif is currently pursuing his PhD at the International Islamic University Malaysia and completed his master's degree in Islamic Banking and Finance from IIUM. In addition to his doctoral studies, he holds a position as Lecturer in the Faculty of Economics and Business at Universitas Pembangunan Nasional "Veteran" Jakarta. His research interests encompass a

variety of topics, including Islamic banking and finance, corporate governance in Islamic banks, green finance, and Islamic wealth management.

Razali Haron, PhD, obtained a DBA (Finance) from UKM in 2012 and is currently Professor at the IIUM Institute of Islamic Banking and Finance, International Islamic University Malaysia (IIUM). Prior to joining IIUM in 2003, he had extensive industrial experience for almost 13 years, covering the capital market, portfolio management, unit trust industry, and merchant banking in Malaysia. He served as a member of the IIUM Investment Sub-Committee from 2012-2021. His research areas include corporate finance, capital market and portfolio management. Razali has published his research works with reputable international publishers such as Emerald, Elsevier, Sage, Springer, Inderscience, and Palgrave Macmillan. Being an active researcher, he has received many awards from IIUM, among others: the Best Researcher Award (2014), Best Indexed Journal Article (2014), Highest Citation in Citation Index Journal (Social Science) (2015, 2023, 2024), Top 250 Contributors to IIUM Research Performance (2015–2017), Highest Number of Publications Award (2019), Top 30 Contributors to HUM Research Performance (2019 and 2021), and Top 50 Contributors to IIUM Research Performance (2022). In addition, he received the Emerald Literati Award (2020 - Emerald Publisher) and the Researcher Award (Universiti Malaysia Sabah). He is currently the Head of Responsible Research at the Institute. He has edited seven research books: Islamic Fund and Wealth Management (2019 - IIUM), Banking and Finance (2020 - IntechOpen, UK), Financial Crises and Solutions (2023 - IntechOpen, UK), Islamic Social Finance and Economic Recovery After a Global Health Crisis (2021 - IGI Global), and three edited books with Routledge. Razali is currently an Advisory Editorial Board Member of The Capital Market Review (Malaysia Finance Association) and Journal of Open Innovation: Technology, Market, and Complexity (Elsevier), and Auditor for Malaysia Research Assessment (MyRA) by the Ministry of Higher Education Malaysia (MOHE).

Aznan Hasan, PhD is Professor at the IIUM Institute of Islamic Banking and Finance. He received his first degree in Shariah from the University of al-Azhar, Egypt, and a master's degree in Shariah from Cairo University, Egypt. He then obtained his PhD from the University of Wales, United Kingdom. Currently, he is the Chairman of the Shariah Board/Advisory Council of Securities Commission Malaysia and Association of Shariah Advisors in Islamic Finance, the Deputy Chairman of the Shariah Supervisory Board of Bank Nizwa (Oman), a Board member of the Higher Shariah Authority of UAE Central Bank, and a Shariah Board member of AAOIFI and Shariah Advisory Council, Islamic Development Bank, and a Non-Independent Non-Executive Director of Maybank Islamic Berhad. He has also served as a Member of Shariah Advisory Board, among others, Etiqa Family Takaful Berhad and Etiqa General Takaful Berhad, Yayasan Waqaf Malaysia, Lembaga Zakat Selangor, Employee Provident Fund, and Koperasi Permodalan FELDA.

- Rusni Hassan, PhD, is Professor and the Dean at the Institute of Islamic Banking and Finance, IIUM. She graduated with LLB (Honors), LLB (Shari'ah) (First Class), Master of Comparative Laws (MCL), and PhD in Law. Her areas of specialization include legal, governance, and Shari'ah aspects of Islamic Banking and Finance. She is an active researcher and expert trainer in IBF. Her publications include books on Islamic Banking and Finance, chapters in books and articles published in local and international journals. She is listed as a top 10 contributor for research in Islamic Finance in the Scopus database. She is on the Shari'ah Committee for several Islamic financial institutions in Malaysia and the Maldives. Her works and contributions to Islamic Finance have also been recognized internationally when she was listed among the top women in Islamic Finance since 2013. The most recent was The Top 10 Most Influential Women in Islamic Finance 2018, 2019 and 2020 by Cambridge IFA.
- Qazi Muhammad Adnan Hye, PhD, holds a doctorate in economics from the University of Malaya (UM), Malaysia. He currently serves as the Research Director of the Academic Research and Development Wing in Dubai, United Arab Emirates. He was a recipient of the prestigious Bright Sparks Scholarship in 2012 and received the UM Excellence Award for Highest Impact Publication in 2014. Prior to his doctoral studies, he worked as a research fellow at the Institute of Business Management. He has an extensive publication record in both international and local scientific journals.
- Megha Jain, PhD, is Assistant Professor of Economics and International Business, ESG, at Jaipuria Institute of Management, Indore, India. She has conducted various MDPs like Airport Authority of India, MSME, HD Wires, National Fertilizers Limited, and agricultural colleges of M.P. under the World Bank project. She has also conducted FDPs on outcome-based education and Self-Reliant India. She is also a trainer in ESG risks and reporting. Her research interests include corporate governance, sustainable development, and entrepreneurship.
- Aghilasse Kashi, PhD, graduated from the College of Islamic Studies, Hamad Bin Khalifa University, Qatar, in 2024. He obtained his master's degree in finance from the International Islamic University Malaysia (IIUM) in 2016. He worked for several research and consulting institutions in Malaysia and GCC countries. His research interests include sustainable finance, Islamic social finance, corporate governance, institutional theory, Islamic finance and economics.
- Early Ridho Kismawadi, PhD, is a lecturer at the Department of Islamic Banking, Faculty of Islamic Economics and Business, IAIN Langsa, Aceh, Indonesia, since 2013. He completed his doctoral program in 2018, majoring in *Shariah* economics from the State Islamic University of North Sumatra (UIN Sumatera Utara). He was appointed as the Head of the Islamic Economics Law study program (2023), Islamic Banking study program (2020), and Islamic Financial Management study program (2019) at Langsa State Islamic Institute (IAIN

Langsa), Aceh, Indonesia. His research interests include financial economics, applied econometrics, Islamic economics, banking, and finance. He has published articles in national and international journals and presented papers at various local and international conferences.

- Abdelkader Laallam, PhD, is Assistant Professor at the Department of Finance at King Faisal University (KFU), Al-Hasa, Saudi Arabia. He obtained his PhD from the Institute of Islamic Banking and Finance, IIUM. He received his master's degree in finance from the International Islamic University Malaysia (IIUM) in 2016. His research interests include corporate governance, social finance, Islamic finance, and economics.
- Nur Farhah Mahadi, PhD, obtained her bachelor's and master's degrees in Islamic Revealed Knowledge and Heritage (Fiqh and Usul al-Fiqh) from the International Islamic University of Malaysia (IIUM) and pursued her PhD in Islamic Economics and Banking at Yarmouk University, Jordan. She is the Deputy Dean (Student Development and Community Engagement) at the IIUM Institute of Islamic Banking and Finance (IIiBF). She serves as a Shariah Advisor to a number of offshore retakaful window companies and has conducted several Shariah audits for retakaful companies in Kuala Lumpur and Singapore. She has conducted several training courses for industry practitioners from Malaysia and Uzbekistan. She was invited as a keynote speaker at international conferences in Indonesia and Saudi Arabia, and as a keynote speaker at the Shari'ah Forum in Malaysia.
- Siti Nursyawani Misman is a dedicated researcher in Islamic banking and finance. She holds a master's degree in Islamic Banking and Finance from the Institute and a double bachelor's degree in Shariah and Law. Her research is in Islamic finance, ESG policies and sustainability reporting.
- **Ketan Mulchandani**, **PhD**, is Professor of Finance at K.J. Somaiya Institute of Management, Mumbai. He holds a PhD in Finance from Devi Ahilya Vishwavidyalaya, Indore, and an MBA in Finance. His research interests are in corporate finance, banking, and ESG. He chairs the Research Excellence Taskforce of the Institute.
- Naji Mansour Nomran, PhD, is currently Assistant Professor in the Finance and Accounting Department, College of Business Administration, Kingdom University, Kingdom of Bahrain. His research interests include Islamic banking and finance, corporate governance, risk management, financial performance, and financial markets. He is currently focusing on the role that green finance plays in combating climate change and promoting sustainable development, examining issues related to cryptocurrencies, blockchain technology in finance, besides issues related to artificial intelligence and FinTech in finance. He has published several publications in international peer-reviewed journals as well as edited books.

Azman Mohd Noor, PhD, is currently Professor at the Institute of Islamic Banking and Finance, IIUM. He has been lecturing in Islamic Jurisprudence and Islamic Finance at the same department since 2005. He completed his degree in Islamic Law in 1997 at the Islamic University of Madinah, Saudi Arabia. He did his MA in Islamic Criminal Law in 2000 at Universiti Kebangsaan Malaysia (National University of Malaysia) and another MA in Muamalat (Islamic Law of Transactions) in 2001 at the Department of Fiqh and Usul al-Fiqh, International Islamic University Malaysia. He obtained his PhD in Islamic Law in 2005 at the University of Edinburgh, Scotland. His areas of interest, research, and publications are mostly on Islamic law of transactions, Islamic banking and capital market, takaful and retakaful, waqf, and zakat collection and distribution.

Fatimah Mohamad Noor, PhD, earned her doctoral degree in Islamic Banking and Finance from HUM Institute of Islamic Banking, International Islamic University Malaysia. She also holds an MA (2017) and a BA (2014) in Islamic Revealed Knowledge, specializing in Fiqh and Usul, both of which were obtained from the same university. As an experienced researcher, she has made significant contributions to her field and has a deep understanding of waqf governance and its importance in sustaining waqf viability for the Muslim community. Throughout her academic journey, she has also conducted extensive research related to Islamic finance, particularly in the areas of waqf governance, publishing numerous articles in reputable academic journals and presenting her findings at international conferences. Currently, she serves as a post-doctoral fellow at IIUM Institute of Islamic Banking and Finance, where she continues to pursue her passion for research and mentor the next generation of scholars.

Nazrul Hazizi Noordin, PhD, is Assistant Professor and Head of Industrial Linkages at the IIUM Institute of Islamic Banking and Finance. He began his academic career in 2021, following the completion of his PhD in Islamic Finance from INCEIF University. He also holds a master's degree in Islamic Banking and Finance from the International Islamic University Malaysia (IIUM), and a bachelor's degree with Honors in Accounting and Finance from Lincoln University, New Zealand. Before joining academia, Nazrul gained valuable industry experience at KPMG Malaysia and the Islamic Financial Services Board (IFSB), where he was involved in regulatory and consultancy work within the Islamic finance sector. His research and professional interests lie in sustainable finance, with a particular focus on how Islamic finance can serve as a strategic tool to address pressing social and environmental challenges.

Milanie Mohd Nor is the Head of Ethical Banking Solutions at Maybank Islamic Banking Berhad. With a career in banking that began in 1994, she brings deep expertise across conventional and Islamic financial services. Milanie served at Etiqa Insurance and Takaful Berhad from 2013 to 2025, where she led the Market Conduct division, ensuring ethical sales practices across the agency force. She previously managed high-net-worth portfolios as a Relationship Manager, strengthening her client-centric perspective. Milanie holds a master's degree in

Islamic Banking and Finance from the International Islamic University Malaysia (IIUM), and a bachelor's degree (Hons) in English Linguistics from the University of North Texas. Her strong interest in sustainable finance has guided her towards her current role, where she champions ethical banking solutions, Shariah-aligned financial solutions that support climate action and broader sustainability goals within the Islamic finance framework.

- Yoghi Citra Pratama, PhD, graduated from the Australian National University, has extensive experience in teaching and research, and is currently attached to the Faculty of Economics and Business, State Islamic University (UIN) Jakarta. He is the Head of the Study program at UIN Jakarta, and Fellow Researcher at Limoges University, France, and Bangor University, UK (2018). Yoghi has published and been involved in various research projects and consultancies with the Indonesian Government. His research interest is in political economy, institutional economics, Islamic banking and finance and public policy.
- Nur Harena Redzuan, PhD, is currently Associate Professor at the IIUM Institute of Islamic Banking and Finance, IIUM. Prior to joining academia, she gained extensive experience in the banking industry, working closely with the Shariah advisory and product development teams. Her research interests are in Islamic banking products, Islamic social finance, and financial inclusion. Being an active researcher, she has been awarded multiple research grants at the university and national levels in Islamic finance. She currently serves as a Fellow of Social Value Malaysia, actively promoting the integration of impact measurement and social value principles in policy and practice.
- Raja Rehan, PhD, is currently a Post-Doctoral Fellow at the Institute of Islamic Banking and Finance, International Islamic University Malaysia (IIUM). He holds a PhD in finance from the University Kuala Lumpur (UniKL), Malaysia. In addition to his post-doctoral research, he serves as a Professor and Dean of the Faculty of Management Sciences at Khadim Ali Shah Bukhari Institute of Technology (KASBIT), Karachi, Pakistan, Previously, he held the position of Dean, Faculty of Management Sciences, at ILMA University, Karachi. He has also contributed as a research assistant on a funded project at UniKL, where he began integrating his academic insights into practical research applications. Before transitioning fully into academia, he had extensive industry experience as a finance and accounts executive. His corporate work encompassed key areas such as fund management, portfolio management, financial reporting, and analysis of financial statements. As an active researcher, Rehan has published numerous scholarly articles in both international and local journals. His primary research interests lie in capital structure, capital markets, energy economics, financial crises, sustainability, Islamic finance and financial technologies.
- Auwal Adam Sa'ad, PhD, is Associate Professor at IIUM Institute of Islamic Banking and Finance, with extensive experience in the Islamic finance and fintech industry. He holds a PhD focused on sukuk asset regulations from the IIUM and studied Fintech Innovation at Cambridge Judge Business School. He

serves as a consultant on blockchain *sukuk* for a Fintech firm in Switzerland and has previous teaching experience at University of Science Malaysia, IIUM, and Islamic University of Minnesota, USA. His research interests include Islamic Fintech, Blockchain *Sukuk*, digital asset regulations, Islamic capital markets, and Al applications in Islamic finance.

Abdulmajid Obaid Hasan Saleh, PhD, graduated from Sidi Mohamed Ben Abdullah University in Fes, Morocco, in 2010 with a PhD (Shari'ah and Financial Contracts), and he is currently an Associate Professor at the Institute of Islamic Banking and Finance, IIUM. Before joining IIUM in 2011, he was the Dean of the College of the Qur'an in Yemen and worked as a researcher at the ISRA Foundation. He has published four books on Islamic banking and finance, published 40 papers, contributed to many conferences, obtained AAOIFI accreditation, and is currently teaching a course on Islamic financial instruments. He is the Director of the Islamic Finance Al Rashad Journal and an editor of the International Journal of Al-Turath in Islamic Wealth and Finance. He works as a consultant for Eid institutions such as the Radfan Charitable Foundation and Al-Amal Private School.

Christo Sebastian is currently working as an analyst in the Capital Markets and Private Data team at BlackRock, the world's leading asset management company. He holds an MBA from Jaipuria Institute of Management, Indore, with specialization in Finance and Marketing. He was previously attached to Symbiotic Pharma Lab Pvt. Ltd., where he worked on SAP systems related to import-export transactions and regulatory compliance in the pharmaceutical sector.

Siti Saffa' Shaharuddin is an active researcher affiliated with the IIUM Institute of Islamic Banking and Finance, currently pursuing her PhD at the Institute. Her academic background includes a master's degree in Islamic Banking and Finance and a bachelor's in Figh and Usul Figh, both from IIUM, where she was a Rector's List recipient. Her research focuses on Islamic social finance, Islamic microfinance, and zakat distribution. She is also a recipient of the prestigious Biasiswa Yang di-Pertuan Agong (BYDPA) 2023, recognizing her excellence and commitment to national development. Her contributions aim to address grassroots-level financial empowerment.

Aniket Sharma is attached to the Jaipuria Institute of Management, Indore, specializing in Finance and Business Analytics. He has secured placement at Deloitte as a USI Tax Consultant. He has also done a three-month internship at Biscon Consultants, handling income tax filings and regulatory compliance.

Ashurov Sharofiddin, PhD, is currently Associate Professor at the Institute of Islamic Banking and Finance, IIUM. He completed his Bachelor of Economics from the International University of Africa, Sudan (2007), and his master's degree (Islamic Finance) from IIUM (2011). He obtained his PhD in Islamic Banking and Finance from Sultan Abdul Halim Mu'adzam Shah International Islamic University (UniSHAMS), Malaysia, with a specialization in Islamic

banking and finance, in 2018. He teaches Money and Banking, Research Methodology, Quantitative and Qualitative Method, Principle of Economics, Principle of Accounting, Islamic Economics, Zakat for Social Financing, and Financial Management Analysis for both Arabic and English sessions. He supervises post-graduate students in the fields of Islamic banking, Islamic social finance, governance, risk management and monetary systems. He has published more than 30 papers in reputable journals and participated in international conferences.

Younes Soualhi, PhD, is a senior researcher at the International Shari'ah Research Academy for Islamic Finance (ISRA) and Professor at INCEIF University, Malaysia. He holds a PhD from the University of Malaya, an MA from the International Islamic University Malaysia, and a BA in Shari'ah from Emir Abdulqadir University, Algeria. With over 30 years of academic and industry experience, Prof. Soualhi specializes in Islamic jurisprudence (fiqh), usul al-fiqh, Islamic financial contracts, and takaful. He has authored numerous academic papers and books published in reputable journals and is a frequent speaker at international conferences. In addition to his academic contributions, he serves on several Shariah advisory boards globally and is the Chairman of the Shariah Committee at Al Rajhi Bank Malaysia. His combined expertise in both theoretical and applied aspects of Islamic finance makes him a prominent figure in the industry.

Khadijah Suria is Senior Lecturer at Universiti Teknologi MARA (UiTM), specializing in financial reporting. She holds a Master of Accountancy from UiTM and is an affiliate of the Association of Chartered Certified Accountants (ACCA). Her research interest is in financial reporting.

Zuhairan Yunmi Yunan, PhD, is Senior Lecturer at Universitas Islam Negeri Syarif Hidayatullah, Jakarta, specializing in the economics of corruption, good governance, and Islamic economics. His research focuses on the economics of corruption in Indonesia, particularly at the sub-national level. He completed his PhD in Economics and Econometrics from the University of Canberra, Australia, in 2023, with a thesis on corruption's economic impact. Zuhairan also holds a master's degree in Productivity and Quality Improvement from the National University of Malaysia, and a bachelor's degree in Economics from the University of Lampung, Indonesia. His work has earned recognition, including the Best Conference Paper Award at the Australia New Zealand Regional Science Associations International (ANZRSAI) Conference in 2022. He actively participates in research projects and has published extensively in reputable academic journals.

Syarah Syahira Mohd Yusoff, PhD, is currently Assistant Professor at the Institute of Islamic Banking and Finance, IIUM, teaching Legal Framework for Islamic Finance, Research Methodology and Qualitative Research Method. Prior to joining academia, she was an Advocate and Solicitor in the High Court of Malaya from 2011 until 2016, specializing in conveyancing, corporate matters, legal documentation and Islamic finance. She is passionate about women's

well-being, and her research area not only is limited to legal matters but also focuses on women's empowerment and women's entrepreneurship. Her current research is on the well-being of single motherpreneur and financial abuse against women. She is also actively engaged in social community work and was appointed at the university level as Flagship Project Leader for Islamic Social Finance for B40 Community 2.0. At present, she is coaching women entrepreneurs in Sg Pusu (Gombak) and assisting them to be financially sustainable under the IIUM Flagship Project, and is also involved with an orphanage house in Janda Baik (Pahang). She has presented her research papers in various international conferences and seminars on her topics of interest. She has also been appointed several times as Research Consultant at ISRA (the International Shari'ah Research Academy for Islamic Finance) in a similar area. She holds an LLB (Hons) and an LLM (Hons) in Islamic Banking and Finance from IIUM, and a PhD in Islamic Banking and Finance from the same university.

Habeebullah Zakariyah, PhD, is Associate Professor at the Institute of Islamic Banking and Finance, IIUM, specializing in Islamic Law and *Muamalat* Transactions. He graduated with an LLB (Hons) in Shari'ah and Law from Omdurman Islamic University, Sudan. He was awarded a Master of Arts and PhD in Islamic Jurisprudence (Islamic Finance) from IIUM. His research interests include Islamic finance, Islamic social finance, contemporary issues in Islamic law and Islamic social finance. He has published more than 40 articles and book chapters in reputable journals. Habeebullah has participated in more than 30 national and international conferences.

Luqman Zakariyah, PhD, holds an LLB in Shariah from Islamic University Medina, an MA in Islamic Studies from Lagos State University, and a PhD in Islamic Legal Studies from the University of Wales. He has taught and researched at various institutions, including Harvard Law School, the University of Aberdeen, and IIUM. He currently serves as Professor of Applied Islamic Jurisprudence at the University of Abuja. He has held numerous academic leadership roles and taught courses such as Usul al-Fiqh, Comparative Jurisprudence, and Applied Maqasid al-Shariah. He has published extensively with Brill and Routledge, focusing on Islamic criminal law, finance, and Maqasid al-Shariah. He regularly presents at conferences, and his research explores how Islamic law contributes to modern socio-economic and legal debates.

Introduction

The climate crisis today represents one of the greatest challenges to human civilization. Rising temperatures, extreme weather events, and environmental degradation threaten not only ecosystems but also the economic, social, and political stability of nations. While the urgency of mobilizing financial resources for climate action is widely recognized, the efforts to date have been fragmented and insufficient. Financial flows continue to fall short of the levels needed to address the climate emergency, particularly in developing countries and among vulnerable populations.

At the same time, the Islamic finance industry has demonstrated significant growth. Over the past four decades, it has expanded into a comprehensive financial ecosystem covering banking, capital markets, Islamic insurance (Takaful), and philanthropy-based financing (Zakat and Waqf). However, despite this progress, the industry has faced persistent criticisms. Observers argue that Islamic finance has become preoccupied with legal compliance and financial performance, while neglecting its higher objectives (Maqasid al-Shariah) and the social and environmental impacts of its activities.

This critique has given rise to increasing calls for the industry to reassess its role and purpose. There is now a growing recognition that Islamic finance must move beyond formalist interpretations and embrace value-based approaches that can contribute to sustainable development. Yet, the sector's engagement with climate action remains in its infancy. While innovations such as green Islamic bonds (Sukuk) and Sustainable and Responsible Investment (SRI) Sukuk have emerged, their scale and impact remain limited. There is an urgent need for broader strategies and deeper integration of Islamic finance with climate action imperatives

This book responds to that need. It proposes that the ethical principles and instruments of Islamic finance are not only compatible with climate objectives but that they can also offer transformative solutions. The foundations of Islamic finance, which include the prohibition of harm (*Dharar*) and excessive uncertainty (*Gharar*), the promotion of risk sharing, and the concept of stewardship of the earth (*Khalifah*), align strongly with environmental ethics and sustainable development goals.

Furthermore, Islamic finance possesses a unique architecture that blends market-based finance with philanthropy. Instruments such as Sukuk, profit-sharing contracts (Mudarabah), Zakat, and Waqf can be mobilized to finance climate

19 Islamic finance risk analysis and climate change

Fahd Al-Shaghdari, Ashurov Sharofiddin, and Habeebullah Zakariyah

Introduction

As humanity confronts the multifaceted challenges posed by climate change, the financial sector finds itself at a crucial moment. The increasing occurrence of severe weather events, rising sea levels, and shifting climatic patterns not only jeopardize natural environments but also threaten the stability of financial systems worldwide. Recent studies indicate that climate change may cost global economies up to USD 23 trillion annually by 2050 if proactive measures are not implemented (Jacobson et al., 2022). This situation is particularly acute in developing regions, where economies often rely heavily on climate-sensitive sectors like agriculture and natural resources. Within this landscape, Islamic finance presents a compelling opportunity to address the dual challenges of financial integrity and environmental responsibility, due to its ethical foundations and commitment to fair economic practices (Sharofiddin et al., 2024). Despite the growing recognition of climate change's significance, there exists a notable gap in understanding how Islamic finance can efficiently navigate the related risks. Islamic financial institutions face the dual challenge of aligning their operations with Shariah principles, while also incorporating climate-related risks into their analytical frameworks (Abdullahi et al., 2024). If these institutions do not develop adequate strategies for managing these risks, they may miss crucial opportunities to contribute to sustainable growth and climate resilience (Ashurov et al., 2022).

The aims of this research are to explore the convergence of Islamic finance and climate change by analysing how Islamic financial institutions can effectively manage climate-related risks through ethical investment practices. It includes looking into how these institutions can effectively integrate climate risk analysis within their existing risk management procedures, and recommend practical strategies for enhancing risk management in Islamic finance, focusing on the development of financial products that support climate resilience and sustainable growth.

This research contributes to the growing conversation surrounding sustainable finance by positioning Islamic finance within the global dialogue on climate adaptation and mitigation. Moreover, by sharing insights into both established and promising practices in risk management, this research will serve as a useful resource for financial practitioners, policymakers, and academics dedicated to fostering a more

ethical and sustainable financial landscape. Besides, this research seeks to close the existing gap between the Islamic finance sector and the urgent global need to tackle climate change challenges.

tı

a

iı 2

r.

je

S

rı

a

C

1

I

b

S

С

p V

е

e

d

iı

n

a

2 e

(]

tŀ

n

0

al

Is

Ci

C.

fi

n

C

Overview of climate change

Climate change refers to long-term alterations in temperature, precipitation patterns, and other atmospheric conditions on Earth, primarily driven by human activities such as the burning of fossil fuels and deforestation (Chien et al., 2023). Climate change represents a critical global challenge today, posing significant threats to our universal financial systems. Issues like increasing temperatures, more frequent severe weather events, and rising sea levels have the potential to severely disrupt economies, force migration, and damage natural resources (Fatima et al., 2024). Financial markets are starting to acknowledge these risks, as both the direct effects of climate change and the shift to a low-carbon economy can influence asset values and credit ratings. The role of sustainable finance is increasingly important in managing these climate-related risks (Sa'ad et al., 2022).

Financial institutions are working to align their operations with environmental goals, emphasizing the importance of integrating Environmental, Social, and Governance (ESG) factors into investment processes (Saleh & Muayyad, 2024). Sustainable finance aims to direct investment towards initiatives and technologies that reduce climate impact, support renewable energy, and boost resilience. This approach not only meets ethical environmental standards but also establishes the financial sector as a crucial player in the global pursuit of sustainability. Additionally, the combination of Islamic finance principles and climate change strategies presents a distinct chance to merge ethical finance with sustainability goals (Al-Shaghdari et al., 2024a). By harmonizing Islamic finance with sustainable practices, there is considerable potential to create financial solutions that align with Shariah and support enduring climate resilience and economic steadiness.

Economic risks posed by climate change

Climate change is becoming a key factor in economic risk, with significant effects on investment portfolios in sectors such as real estate, agriculture, and energy (Nsabiyeze et al., 2024). As extreme weather events increase in frequency and intensity, assets in these industries are experiencing greater vulnerabilities (Fatica et al., 2024). For instance, agricultural yield might be reduced due to changing climate conditions, affecting food supply and prices. Similarly, real estate investments could decrease in value in regions susceptible to flooding or other climate-related threats.

In the Islamic finance sector, climate change introduces both notable challenges and opportunities. Rooted in principles of ethical investment and social responsibility, Islamic finance encourages institutions to consider not just financial returns, but also the broader environmental and social impacts of their investments (Al-Shaghdari et al., 2024b). This ethical framework can direct Islamic finance

towards addressing climate risks by allocating resources to sustainable and renewable energy projects that bolster environmental resilience.

Furthermore, Islamic finance has the potential to utilize innovative financing methods to back climate adaptation and mitigation efforts (Abdullahi et al., 2024). Instruments like green Sukuk can finance eco-friendly initiatives, while risk-sharing models such as Mudarabah can support sustainable agricultural projects (Marwan et al., 2024). This unique role enables Islamic finance to advance sustainability, fostering investments that are both economically sound and environmentally conscious (Musse et al., 2024). Besides, by actively engaging with climate-related challenges, Islamic finance not only protects its own portfolios but also plays a significant role in global efforts to combat climate change, reflecting a commitment to financial ethics alongside sustainable development.

The convergence of Islamic finance and climate risk

Islamic finance holds considerable promise for promoting sustainable development by channelling investments into green initiatives, renewable energy projects, and strategies to improve climate resilience. Its foundation in ethical financing principles encourages investment strategies that achieve both financial returns and positive social and environmental impacts (Megat et al., 2024; Rehan et al., 2024). Within this framework, financing for green projects can take numerous forms. For example, green Sukuk can be issued to secure funding specifically for renewable energy advancements, energy efficiency initiatives, and sustainable infrastructure development (Marwan et al., 2024). These financial instruments resonate with investors' ethical values, while addressing the critical necessity for innovative climate change solutions (Al-Refaei et al., 2024).

Furthermore, Islamic finance can actively support climate mitigation and adaptation strategies through specialized financial products (Saleh & Alswaidan, 2024). Instruments such as Mudarabah and Musharakah facilitate collaborative efforts aimed at creating technologies and practices designed to reduce greenhouse gas emissions and enhance sustainability in both agricultural and urban settings (Muhammad & Al-Shaghdari, 2024). Additionally, aligning Islamic finance with the United Nations sustainable development goals (SDGs) provides a structured method to evaluate the impact of investments in relation to important societal objectives, including clean energy (SDG 7), climate action (SDG 13), and sustainable cities (SDG 11). By incorporating these goals into their investment strategies, Islamic financial entities can play a vital role in global sustainability efforts, while remaining true to their ethical commitments.

Overall, the convergence of Islamic finance and climate risk presents a significant opportunity to foster sustainable development. By utilizing innovative financial instruments and aligning their portfolios with environmental objectives, Islamic finance can address climate-linked risks and contribute to the transition towards a more sustainable economic model. Figure 19.1 depicts the Islamic Finance and Climate Resilience Cycle.

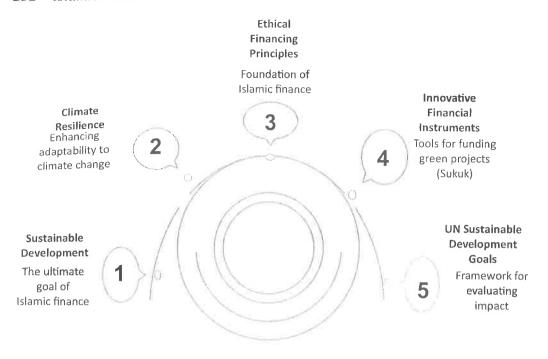


Figure 19.1 Islamic Finance and Climate Resilience Cycle.

Islamic finance addressing climate risks: innovative analysis

These case analyses, elucidated in Figure 19.2, highlight how Islamic financial frameworks can reduce risks while encouraging environmentally responsible investments. One notable instance is the issuance of green Sukuk, particularly illustrated by the green Sukuk launched by the Malaysian government in 2017. This initiative aimed to raise funds for renewable energy projects, especially in solar energy. By directing investments towards green initiatives, such Sukuk not only address climate risks related to energy use and environmental harm but also align with the ethical principles of Islamic finance. Risk analysis in this context involves evaluating the environmental benefits along with the potential financial returns linked to renewable energy assets, showcasing how Islamic finance can strategically allocate resources to enhance climate resilience.

In a similar vein, Dubai Islamic Bank has made significant advances in incorporating climate risk considerations into its financing strategy. The bank offers specific products designed to support renewable energy and sustainable agricultural initiatives, assessing these products based on their environmental impact. This approach helps identify risks stemming from climate variability and resource limitations. By investing in projects that promote energy efficiency and sustainability, Dubai Islamic Bank not only mitigates potential economic risks but also seizes emerging opportunities, thereby bolstering the resilience of its investment portfolio.

Additionally, Qatar Islamic Bank's strategy towards climate-oriented financing further demonstrates how Islamic finance can effectively confront climate change. The bank provides customized financing solutions targeted at energy-efficient technologies, employing risk assessment techniques that prioritize long-term

ing Λ tiati The tal fe risk supr Syste \mathbf{C} is w emp Islar risks well-It prote utes appr glob. furth

sust.

asso

Disc

The explaing r tal aractiv ciple responsible are withat a social abilit

Se Islam Instru Shari Suku into t port facili ience sustainability. Focusing on financing greener operations helps to mitigate risks associated with regulatory changes and shifting consumer preferences, highlighting the foresight necessary to navigate climate challenges.

Moreover, the integration of Islamic microfinance into community-based initiatives enriches the conversation surrounding climate adaptation (Fenton, 2017). These programs empower low-income communities by facilitating access to capital for sustainable practices, thus enhancing their resilience to climate impacts. The risk evaluation in this context involves analysing the socio-economic advantages of supporting vulnerable groups, ultimately contributing to the reduction of broader systemic risks linked to climate change.

Overall, Islamic finance, with its distinctive structures and ethical frameworks, is well equipped to tackle the complex risks posed by climate change. Through emphasizing sustainable investments and implementing in-depth risk analysis, Islamic financial institutions can achieve a dual impact: mitigating climate-related risks while fulfilling their ethical obligation to promote social and environmental well-being.

Implementing robust risk management techniques, Islamic finance not only protects its investments from climate-related risks but also significantly contributes to the promotion of sustainability. As these financial institutions advance their approaches to address climate-related challenges, they play an essential role in global initiatives aimed at mitigating and adapting to climate change, while also furthering the overarching goals of sustainable development.

Discussion of findings

The analysis of the relationship between Islamic finance and climate change, as explained, reveals important insights into the role of Islamic finance in addressing modern climate risk. First, the integration of ethical principles is a fundamental aspect of Islamic finance, as it adheres to Shariah principles, which prohibit activities like interest (Riba) and excessive uncertainty (Gharar). This ethical principle supports alignment with SDGs via promoting investments that are socially responsible. Consequently, the analysis shows that Islamic financial institutions are well positioned to manage climate change-related risks by focusing on projects that offer financial returns while ensuring environmental protection and promoting social equity. This alignment fosters an investment strategy that balances profitability with a commitment to sustainability.

Second, the introduction of innovative financial instruments demonstrates Islamic finance's potential in funding climate mitigation and adaptation efforts. Instruments such as green Sukuk, Mudarabah, and Musharakah exemplify Shariah-compliant solutions that mobilize critical funding. Specifically, green Sukuk are designed to finance environmentally sustainable projects, thus tapping into the growing sector of sustainable investments. Mudarabah arrangements support risk-sharing in ventures focused on renewable energy, while Musharakah facilitates collaborative investments in projects enhancing environmental resilience. These instruments effectively channel significant capital towards essential

able ent

rk for ing at

incial isible ilarly 2017. Ily in k not also

ntext ncial e can

orpoecific nitiaroach tions. Dubai rging

ange.
cient

sectors for combating climate change, thereby affirming the crucial role of Islamic finance in promoting sustainable development.

Third, Islamic financial institutions employ advanced risk management strategies that incorporate environmental and socio-economic factors, boosting their adaptability to climate-induced uncertainties. These strategies involve comprehensive assessments of investment opportunities, considering their environmental sustainability and social impact. By including climate risk in their decision-making processes, these institutions can anticipate and mitigate potential risks, leading to more stable and sustainable investment outcomes. This proactive approach highlights a commitment to responsible financial management in accordance with Islamic finance principles.

Furthermore, real-world case studies underscore the successful implementation of climate risk management within Islamic finance. Examples from the Malaysian government, Dubai Islamic Bank, and Qatar Islamic Bank show effective use of Islamic finance principles in addressing climate challenges. The Malaysian government's green Sukuk initiative funds renewable energy projects, demonstrating Islamic finance's practical application. Similarly, Dubai Islamic Bank's support for sustainable agricultural practices illustrates the environmental benefits and economic growth achieved through targeted investments. These cases provide concrete evidence of Islamic financial institutions' capacity to operationalize their ethical frameworks in mitigating climate risks.

Finally, as revealed in Figure 19.2, Islamic finance contributes significantly to global sustainability efforts by channelling investments towards climate-resilient projects. These investments support the broader sustainability agenda through technologies and practices that reduce greenhouse gas emissions and enhance ecological resilience. Also, the ethical investment practices of Islamic finance foster a culture of responsibility and accountability, potentially encouraging other financial sectors to adopt similar strategies. Thus, Islamic finance emerges as a crucial facilitator of sustainable development, harmonizing economic progress with environmental stewardship.

All in all, from Figure 19.2, the discussion illuminates the integral role of Islamic finance in intertwining ethical principles with sustainable investment strategies, employing innovative financial mechanisms to tackle climate-related challenges. Through effective risk management and showcasing real-world successes, Islamic finance institutions not only navigate financial uncertainties but also significantly advance global sustainability initiatives. This positions Islamic finance institutions as essential agents in driving an inclusive and environmentally sustainable future.

Conclusion

This chapter carries important implications for the Islamic finance sector and its potential to address climate change challenges. By demonstrating the effectiveness of ethical investment practices and innovative financial instruments, the findings encourage Islamic financial institutions to enhance their commitment

Figur

to su

decis

Inne

moti high ity is lands L chan of m ity to tutio polic such educ inve

men illus tribu chal that men solic

It

in ac

strattheir
npreiental
aking
ng to
highwith

cation
ysian

govrating rt for ecocontheir

tly to ilient ough ecoloster inanucial envi-

amic egies, nges. amic antly tions ture.

nd its :tive-, the ment

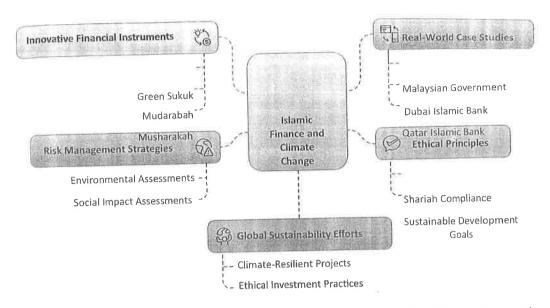


Figure 19.2 Islamic Finance Role in Climate Change Mitigation: A Sustainable Approach.

to sustainability. Furthermore, the integration of climate risk assessments into decision-making processes can influence policy and regulatory frameworks, promoting resilience and accountability in financial practices. Ultimately, this study highlights the crucial role of Islamic finance in advancing global sustainability initiatives and contributing to a more environmentally responsible economic landscape.

Looking ahead, Islamic finance has the potential to expand its impact on climate change mitigation and adaptation. Key future directions include the development of more comprehensive green financial products that cater to emerging sustainability trends, such as biodiversity conservation and climate resilience. Financial institutions should enhance their collaboration with environmental organizations and policymakers to align investment strategies with global sustainability frameworks, such as the Paris Agreement and the SDGs. In addition, increasing awareness and education among stakeholders about the benefits of Shariah-compliant sustainable investments will be critical to fostering greater participation in this sector.

In conclusion, this research demonstrates that Islamic finance plays a pivotal role in addressing the pressing challenges of climate change through its ethical investment principles and innovative financial instruments. The successful case studies illustrate the practical application of these principles, showcasing its ability to contribute to global sustainability efforts. As the world grapples with climate-related challenges, the Islamic finance industry is uniquely positioned to lead initiatives that not only mitigate financial risks but also promote a sustainable and environmentally responsible economic future. Embracing these opportunities will further solidify the role of Islamic finance in fostering a more sustainable global economy.

Sal

References

Abdullahi, I. S., Sharofiddin, A., & Kasim, S. (2024). Reducing financial exclusion and enhancing contribution of non-interest (Islamic) banks in Nigeria. International Journal

of Economics, Management and Accounting, 32(1), 51-68.

Al-Refaei, A. A. A., Abdulsamad, A., Ali, D. A., Ibrahim, A., Ateeq, A., & Al Balushi, F. K. (2024). A conceptual framework for the impact of entrepreneurial leadership on innovation work behavior and sustainable innovation performance. Entrepreneurship Innovation and Education for Performance Improvement, 5(1), 577-598.

Al-Shaghdari, F. M. O., Sharofiddin, A., & Zakariyah, H. (2024a). Risk factors in Islamic green finance and a corporate solution. In Islamic green finance (pp. 213-223). Routledge.

- Al-Shaghdari, F. M. O., Zakariyah, H., Muhammad, T., & Yusoff, S. S. M. (2024b). Ethical crowdfunding-led Islamic green finance. In Islamic green finance (pp. 203-210). Routledge.
- Ashurov, S., Alhabshi, S. M. B. S. J., Othman, A. H. A., Habibullah, M., & Yusof, M. S. M. (2022). Developing a conceptual framework for zakat collection and distribution impact on social welfare through implications of SDGs. In Research anthology on measuring and achieving sustainable development goals (pp. 422-440). IGI Global.
- Chien, F., Chau, K. Y., & Sadiq, M. (2023). Impact of climate mitigation technology and natural resource management on climate change in China. Resources Policy, 81, 103367.
- Fatica, S., Kátay, G., & Rancan, M. (2024). Floods and firms: Vulnerabilities and resilience to natural disasters in Europe. Available at SSRN 4796097.
- Fatima, N., Usman, M., Khan, N., & Shahbaz, M. (2024). Catalysts for sustainable energy transitions: The interplay between financial development, green technological innovations, and environmental taxes in European nations. Environment, Development and Sustainability, 26(5), 13069–13096.
- Fenton, A. F. (2017). Microfinance and climate change adaptation: Insights from Bangladesh. University of Leeds.
- Jacobson, M. Z., von Krauland, A. K., Coughlin, S. J., Dukas, E., Nelson, A. J., Palmer, F. C., & Rasmussen, K. R. (2022). Low-cost solutions to global warming, air pollution, and energy insecurity for 145 countries. Energy & Environmental Science, 15(8), 3343-3359.
- Marwan, S., Saffa'Shaharuddin, S., & Zain, N. S. (2024). Islamic sustainable finance: How does SRI sukuk matter? In Islamic finance and sustainable development (pp. 171–184). Routledge.
- Megat, P. A., Al-Shaghdari, F., Bin Ngah, B., & Abdelfattah, S. S. (2024). Assessing the predictive benefits of Wagftech smart contracts on corporate waqf crowdfunding among Malaysian enterprises. Journal of Islamic Marketing, 15(5), 1303–1325.
- Muhammad, T., & Al-Shaghdari, F. (2024). Islamic social finance system: An alternative tool for tackling educational setbacks in Northern Nigeria. Journal of Islamic Marketing. Advance online publication. https://doi.org/10.1108/JIMA-05-2023-0149
- Musse, O. S. H., Sharofiddin, A., & Mohamed, M. A. (2024). The impact of external debt stock on economic growth: Ethical dilemmas and evidence from East African community bloc. International Journal of Ethics and Systems. Advance online publication. https:// doi.org/10.1108/IJOES-06-2024-0178
- Nsabiyeze, A., Ma, R., Li, J., Luo, H., Zhao, Q., Tomka, J., & Zhang, M. (2024). Tackling climate change in agriculture: A global evaluation of the effectiveness of carbon emission reduction policies. Journal of Cleaner Production, 142973.
- Rehan, R., Khan, M. A., Fu, G. H., Sa'ad, A. A., & Irshad, A. (2024). The determinants of Shariah banks' capital structure. International Journal of Economics and Financial Issues, 14(5), 193–202.
- Sa'ad, A. A., Ibrahim, Hassan, A., & Usman, A. (2022). Islamic smart city innovation, concept, application and Shari'ah parameters: A theoretical assessment and technological advancement in artificial intelligence. Global Journal of Research in Engineering, 22(1), 1-5.

Saleh, A. O. H., & Alswaidan, M. W. (2024). Development of asset-based and asset-backed Sukuk issuance: Case of Malaysia. In *Artificial intelligence and transforming digital marketing* (pp. 351–359). Springer Nature.

Salch, A. O. H., & Muayyad, D. M. (2024). Islamic sustainable finance towards SDGs. In

Islamic Sustainable Finance (pp. 15-23). Routledge.

Sharofiddin, A., Al-Shaghdari, F. M. O., Zakariyah, H., & Habibullah, M. (2024). Islamic banking towards sustainable green finance and corporate social responsibility. In *Islamic green finance* (pp. 16–23). Routledge.