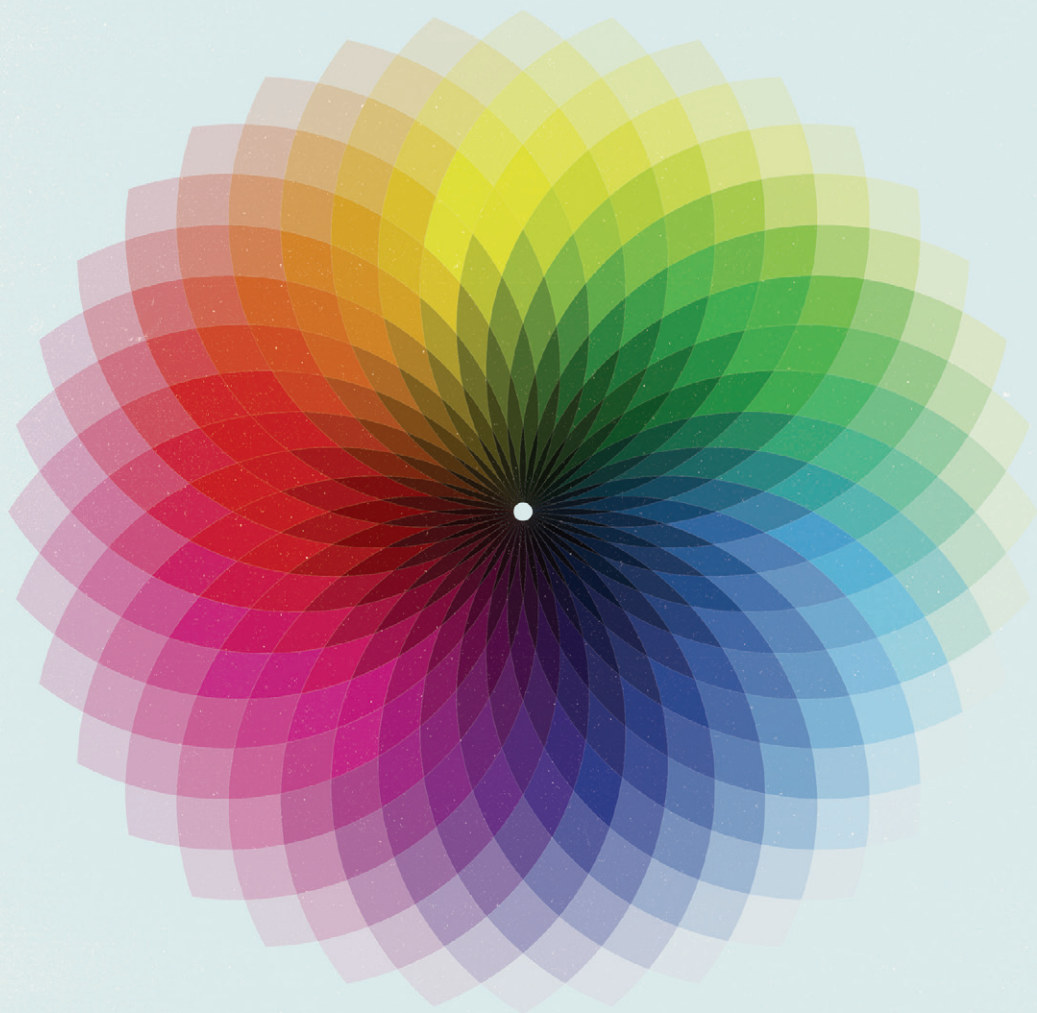


# UNIVERSITIES AND THE SDGs

Empowering Change in the MENA Region



Edited by

**SAMEERAH T. SAEED**

# **Universities and the SDGs**

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# Universities and the SDGs: Empowering Change in the MENA Region

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United Kingdom – North America – Japan – India – Malaysia – China

Emerald Publishing Limited  
Emerald Publishing, Floor 5, Northspring, 21-23 Wellington Street, Leeds LS1 4DL

First edition 2026

Editorial matter and selection © 2026 Sameerah T. Saeed.  
Individual chapters © 2026 The Authors.  
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**British Library Cataloguing in Publication Data**

A catalogue record for this book is available from the British Library

ISBN: 978-1-83708-211-7 (Print)

ISBN: 978-1-83708-210-0 (Online)

ISBN: 978-1-83708-212-4 (Epub)



INVESTOR IN PEOPLE

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## Chapter 1

# Introduction to Universities and the SDGs: Empowering Change in the MENA Region

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### Abstract

In 2015, the United Nations advocated a set of goals to be a blueprint for a sustainable future for all and create a better world by 2030. These goals are referred to as the Sustainable Development Goals (SDGs). They comprise 17 goals that cover a range of social, economic, and environmental sustainability issues. Since then, these goals have been the focus of all industries, particularly universities. Universities have great potential to achieve these goals through interdisciplinary research initiatives, outreach programs, curriculum integration, global exchange programs, and partnerships with government and industries. This book presents several efforts made by universities in the Middle East and North Africa (MENA) in advancing the 17 SDGs. The contributions to this book provide different case studies and examples of universities from the MENA region that can serve as a guide and a roadmap for other higher education institutions.

*Keywords:* SDGs; United Nations; MENA region; multi-stakeholder approach; partnerships for the goals; community engagement; global framework

### Introduction

The book *Universities and the SDGs: Empowering Change in the MENA Region* shares contributions and achievements by universities in the Middle East and North Africa (MENA) region toward advancing the 17 Sustainable Development Goals (SDGs). Universities are well-positioned to support changes in

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doi:[10.1108/978-1-83708-210-020251001](https://doi.org/10.1108/978-1-83708-210-020251001)

communities and achieve sustainable development through providing high-quality education and contributing to socio-economic development. It is through knowledge, skills, research, and collaboration that universities can drive progress toward the SDGs and foster innovation. By engaging faculty members, students and communities, universities will create an environment that enhances innovation, critical thinking, and problem-solving. Through this collaborative approach, universities will be able to address local and global challenges, such as hunger, poverty, inequality, and climate change, and contribute sustainable practices that serve the whole planet.

This book serves as a reference for policymakers and practitioners in the field of community engagement, as well as a guide for universities in their endeavor to achieve the SDGs. A variety of examples, initiatives, case studies, and research efforts are presented to highlight the actions made by MENA universities. The book aims to explore the various activities that universities can undertake to promote the 17 SDGs and the challenges they may encounter, especially in developing countries. Key topics include the role of universities in achieving the SDGs, how universities integrate sustainability goals into their strategic plans, the challenges they face in implementing the SDGs, differences in SDG implementation between developed and developing countries in the MENA region, and partnerships between universities and other stakeholders to achieve the SDGs. Showcasing diverse strategies and practices from different universities across the MENA region can significantly facilitate the overarching objective of effectively integrating the sustainable goals and targets within higher education systems.

The UN's 17 SDGs were established in 2015 as part of the UN 2030 Agenda for Sustainable Development (UN, 2015). These 17 SDGs are a collection of goals advocated by the United Nations (UN) in 2015 and agreed upon by all the UN member states. These goals are designed to be a blueprint for a sustainable future for all and cover a range of issues related to social, economic, and environmental sustainability (see UN, 2016). Initially, the UN developed the Millennium Development Goals (MDGs) during the Millennium Summit in 2000 as a global framework to advocate the International Development Goals set by the OECD (Organisation for Economic Co-operation and Development) in 1996 for shaping the 21st century (Zawahri et al., 2011). The MDGs focused on eight goals which aimed to eradicate extreme poverty and hunger, achieve universal primary education, promote gender equality and empower women, reduce child mortality, improve maternal health, combat HIV/AIDS, malaria, and other diseases, ensure environmental sustainability, and develop a global partnership for development (McArthur, 2014).

The SDGs were introduced to build on the MDGs and expanded the scope from 8 goals to 17. The SDGs are applied to all countries, not only the developing countries. Achieving the 17 goals requires commitment from all sectors of society and requires a multi-stakeholder approach. Universities are well-positioned to support the SDGs by leveraging their resources and expertise (Dhaoui, 2018; Elmassah et al., 2021; Leal Filho et al., 2018).

The existing literature on universities' intersection and the SDGs in the MENA region is so limited and fragmented. A prominent piece of literature in this area is the series of 17 books entitled "Higher Education and the Sustainable Development Goals," which examines each SDG through the lens of higher education in terms of successes and challenges. Thus far "Higher Education and SDG 17: Partnerships for the Goals" book was published in June 2023 (see [Cabrera & Cutright, 2023](#)). In these books, no particular country or region is discussed, but rather a global and holistic overview of how institutions of higher education can work and contribute to the achievement of the SDGs. This book offers case studies, reflections, and critical perspectives on how higher education institutions' partnerships can advance progress toward achieving the goals. As part of this book, authors from different fields and countries in the MENA region are brought together with some global comparisons to fill this gap.

Research in the MENA region has shown disparities in SDG achievement between countries, with some countries excelling in the achievement of some goals and others lagging (see, e.g., [Dhaoui, 2018](#); [Zawahri et al., 2011](#); [Singh & Blessinger, 2023](#)). This book focuses on the 17 SDGs and how universities are approaching them. This topic has globally become a focal point for universities and this book aims to share a few of the efforts that are achieved by universities in the MENA region in achieving the SDGs. These SDGs are a way to achieve a better world by 2030 through, for example, ending poverty and hunger, ensuring good health and well-being, quality education, gender equality, clean water, and sanitation, reducing inequalities within and among countries, making cities and human settlements inclusive, safe, resilient, and sustainable, and ensure sustainable consumption and production patterns.

## **The Role of MENA Universities in Advancing the SDGs**

Higher Education Institutions are pivotal in advancing the 17 SDGs ([McCowan, 2023](#)). In the MENA region, HEIs' contributions are manifested through research, education, community engagement, and partnerships ([Abdalla et al., 2024](#); [Al Mahameed et al., 2023](#)). The literature shows that MENA universities, especially in the Arab countries, are making unique contributions to SDG 4 (see [Abdalla et al., 2024](#); [El Bedawy, 2014](#)). This is in line with the results of the Times Higher Education (*THE*) Impact Ranking in 2024, which marks SDG 4 as the most highly achieved development goal by MENA universities ([Saleh & Adly, 2024](#)). This is normal and justifiable since education is one of the most prominent pillars of universities, in which sustainability concepts are integrated into curriculum design, and teaching and learning policies ([El Bedawy, 2014](#)). Additionally, *THE* Impact Rankings 2024 results show high contributions by MENA universities in SDG 3 (Good Health and Well-being) and SDG 5 (Gender equality). [Jarrar \(2024, p. 53\)](#) also shows the massive role the Arab universities have played in contributing to SDG 16 in "building peaceful and inclusive societies" for sustainable development.

However, MENA universities face several challenges in addressing and advancing the SDGs fully. Limited financial resources and funding are on top of these challenges. Lack of resources impedes universities from investing in research, community engagements, or other sustainability activities (see [Onyeaka & Akinsemolu, 2024](#); [Singh & Blessinger, 2023](#)). Other challenges include “lack of multi-stakeholders engagement, unclear policy guidelines, the escalating impacts of climate change, ineffective governance structures and lack of political commitment, disagreements on local priorities, lack of integration, and difficulties of measurement” ([Abdalla et al., 2024](#), p. 2). These challenges are not only constraining universities but all institutions, including governmental and private ones, as well as organizations. Thus, all relevant bodies and stakeholders are requested to be involved and cooperate in this matter, as is called for by SDG 17 (Partnerships for the goals).

To empower change in the MENA region, it is essential that the HEIs are enhanced to drive progress toward achieving the SDGs. This can be achieved through promoting research and innovation, integrating sustainable development into curricula and study programs, and establishing partnerships with industries. HEIs are already in that privileged position to contribute to SDG 4 (Quality Education).

Universities are the hub of knowledge and skills building. As argued by UNESCO, universities play a vital role in generating and communicating knowledge ([UNESCO, 2001](#)). Thus, contributing to SDG 4 can lead automatically to contribution and advancement of other SDGs ([Jarrar, 2024](#)). For example, target 4.1 (ensuring free, equitable, and quality primary and secondary education) leads to advancement in SDG 1 (No Poverty) by reducing poverty cycles, SDG 8 (Decent Work and Economic Growth) by accessing decent employment, and SDG 10 (Reduced Inequalities) by bridging social and economic inequalities. Target 4.2 (early childhood development, care, and pre-primary education) can lead to SDG 3 (Good Health and Well-being), SDG 5 (Gender Equality), and SDG 16 (Peace, Justice and Strong Institutions). Development in early years lays the foundation for a better health outcome, secured education for girls, and peaceful societies. Target 4.3 (equal access for all women and men to affordable and quality technical, vocational and tertiary education) can contribute to the advancement of SDG 5, SDG 8, and SDG 9 (Industry, Innovation, and Infrastructure). Ensuring access to all types of education promotes inclusion of women (SDG 5), prepares a skillful workforce to meet the needs of labor market (SDG 8), and boosts innovation through research (SDG 9). Target 4.4 (skills for employment, decent jobs, and entrepreneurship) can uplift families from poverty (SDG 1), strengthen employability and productivity (SDG 8), and support growth in the industrial sector (SDG 9).

Moreover, target 4.5 (gender equality and inclusion in education) can contribute to SDGs 5, 10, and 16 because it calls for reducing gender disparities, and including vulnerable populations. Target 4.6 (literacy and numeracy for youth and adults) can enhance achievement of SDG 3 (having literate people improve health choices), and SDG 8 (literacy ensures decent employment). Target 4.7 (sustainable development and global citizenship) is more likely to contribute to

SDG 12 (Responsible Consumption and Production) and SDG 13 (Climate Action). Through quality education, informed individuals will be prepared for a variety of sustainable choices (SDG 12), and accurate actions will be made on environmental issues (SDG 13). Target 4.8 (inclusive and safe schools) calls for building and upgrading education facilities, and thus can contribute to: SDG 3 through promoting well-being, SDG 6 (Clean water and sanitation) through promoting hygiene in schools, as well as SDG 16 through promoting non-violent learning environments. Contributions in target 4.9 (expand higher education scholarship for developing countries) can lead to the advancement of SDG 10 through supporting students in developing countries, hence reducing inequalities and of SDG 17 (Partnerships for the goals) through strengthening international cooperations. Finally, target 4.A (increasing qualified teachers) can contribute to improving employment conditions (SDG 8), empowering women (SDG 5), and encouraging international cooperation in terms of teacher education (SDG 17). The interconnection between how each of these targets of SDG 4 contributes to the advancement of other SDGs has been suggested based on the keywords, themes, and objectives associated with the targets and the SDGs. Further studies are recommended to justify and quantitatively prove this mapping.

## **Chapters Overviews**

This book features contributions by authors reporting case studies from several MENA countries, including Iraq, Cyprus, Saudi Arabia, United Arab Emirates, Syria, Yemen, Lebanon, Oman, Egypt, Jordan, and Morocco. The chapters are organized in alphabetical order based on the initial of the first author's name. Below is a brief overview of each contribution.

The chapter "Sustainability and higher education: A university perspective from Northern Cyprus," by Fetine Bayraktar and Hamed Rezapouraghdam, explores the sustainability initiatives of higher education institutions in Northern Cyprus as presented on their websites to assess their contributions to the SDGs. Data were gathered from 23 university websites employing qualitative content analysis. The study indicates that only 14 universities are actively involved in the SDGs. The findings suggest that merely five companies have completely adopted sustainability policies and SDG accreditations. This indicates a lack of coherence between global trends and local practices. SDGs 4, 12, and 17 were prioritized above 1, 2, and 13. These findings elucidate the implementation of SDGs in higher education institutions, particularly in small island nations. This study offers policymakers, university administrators, and researchers engaged in advancing sustainable higher education in analogous contexts with significant insights. The study identified a necessity for comprehensive, institution-wide strategies for implementing the SDGs, enhanced utilization of online platforms to convey sustainability initiatives, and a more robust connection between SDG initiatives and educational tourism strategies.

The chapter "Qassim University: A Role Model to Establish Sustainable Development Goals," by Majed Alinizzi, Zafar Rasheed, Ahmed Elzainy, Essam

Hamad, and Waleed Al Abdulmonem, highlights Qassim University's (QU) commitment to sustainability and its role in advancing the United Nations' SDGs. It explores how QU integrates sustainability into its academic, research, and administrative functions to address global challenges such as resource depletion, climate change, and social inequities. The chapter emphasizes QU's dedication to environmental preservation and natural resource conservation, demonstrating how the university fosters sustainable solutions through impactful research, policy development, and strategic partnerships at local, national, and international levels. QU actively contributes to areas such as poverty alleviation, food security, and healthcare, reinforcing its commitment to holistic development. A pivotal milestone in QU's sustainability journey was the establishment of the Center for Sustainable Development in 2011. This center has played a crucial role in promoting sustainable local development in the Qassim region, solidifying QU's leadership in sustainability initiatives. By aligning its institutional policies with sustainable development principles, QU serves as a model for universities worldwide, showcasing how higher education institutions can drive meaningful change and contribute to global sustainability efforts.

"Technological Innovation Ecosystem for Sustainable Development: Multi-cases from Federal Universities in UAE," by Mostafa Mohamad, addresses the limited theorization of the technological innovation ecosystem by adopting the Triple Helix Model. The evolution of this model has been revisited to reflect the schools of thought with and against the Triple Helix. Then, a proposed model of Triple Helix has been presented. Afterward, the author used multiple case studies to address how the trio of universities, the private sector, and the government interplay in each technological innovation project. The cases included in this chapter include AI for precision analytics in agriculture and food supply chain, metaverse for sustainable tourism, Augmented Reality for women empowerment in public services, and mobile technologies for financial inclusion. UAE universities lead the selected cases to address one or more national SDGs. All cases include award-winning technological innovation projects in food security, clean water and energy, women empowerment, inclusive public services, and sustainable tourism. In this chapter, the author offers a systemic categorization of UAE's SDGs based on life essentials, sustainable urban and environmental development, economic growth and energy sustainability, and environmental conservation and climate action. The author's comprehensive analysis examines the interactions between universities, the private industrial sector, and government entities, highlighting the nature and extent of collaborations among these sectors. Additionally, the author assessed each sector's contributions to technological innovations and anticipated their impact on the SDGs. Most importantly, the author developed a systemic collaboration framework to foster a sustainable technological innovation ecosystem amidst the ongoing global challenges and crises.

"Entrepreneurship, Education and Environment within Political Instability: A perspective from Iraq, Syria and Yemen," by Mugaahed Abdu Kaid Saleh and Harold Andrew Patrick, focuses on the perspective of higher education students in three politically unstable business environments (Iraq, Syria, and Yemen)

about imparting skills and behavior-related green entrepreneurship and sustainability through exploring the role played by universities and their curricula. Three phases were conducted in the study: The first phase involved a quantitative cross-sectional design and primary data from university students in the three countries on imparting business skills among undergraduate students during their university education. In the second phase, similar methods are adopted to collect data from female students in the three countries about green entrepreneurial intention and behavior, and in the third phase, qualitative methods are adopted with semi-structured interviews to collect data from female university students on the role of universities in promoting green enterprising among students. This chapter contributes to the current literature in highlighting such environment to provide an opportunity for universities, educational authorities, and policy makers to gain sufficient insight into reforming the educational curricula and university practices to ensure university students have sufficient access to the necessary resources to be well equipped with knowledge and practices related to thriving into green enterprising in their future ventures and becoming more responsible toward sustainability.

“The Role of Universities in Upholding Sustainable Development Goals During Times of Crisis and Mass Displacement: Lebanese Universities in the Spotlight,” authored by Nael H. Alami, Eman Swaidan, and Mariam Fadel, explores the multilayered strategies Lebanese universities have adopted in response to multiple crises, focusing on their roles in promoting key SDGs. Using a combination of policy changes, innovative funding instruments, global partnerships, as well as engagement with local communities, these HEIs have not only survived in operation but also supported marginalized peoples and promoted sustainability despite adversity. By analyzing case studies from leading Lebanese universities, the chapter provides concrete examples of how HEIs have promoted social inclusion, provided educational access to displaced and disadvantaged students, engaged in peacebuilding efforts, and established strategic partnerships to mobilize resources. Furthermore, it reflects on the broader implications of these experiences for higher education institutions in other crisis-affected regions, offering a framework for navigating instability while maintaining a commitment to sustainable development. Ultimately, this chapter underscores the indispensable role of universities in fostering resilience, driving innovation, and addressing global challenges, even in the face of profound socio-political and economic turmoil.

The chapter “Understanding the Perception of Mena Region Students Toward Sustainable Education Courses,” by Nidhi Bhatia, Khyati Manchanda and Biswajita Parida, examines the views of post-graduation exchange students who traveled to India to investigate the changing climate and its impact on the vulnerable populations of the MENA Region. In recent years, the MENA region has experienced significant climate changes, which are intensifying annually, creating challenges for the lives of its inhabitants. Drought and increased desertification lead to significant social and economic vulnerabilities. The MENA region is experiencing increased susceptibility to climate change, which poses significant student challenges. The chapter also delves into these exchange

students' perspectives on the potential of sustainable education and courses to address these challenges. This chapter employs a blend of two theoretical frameworks, Migration Theory and Vulnerability Theory, to analyze the migration patterns of MENA students seeking improved career opportunities, job creation, and the acquisition of sustainable skills. These factors are driving students to move for better educational and job prospects. The chapter highlights the critical need for policy reforms, improved educational infrastructure, and more significant community support for sustainability education in the region.

"Balancing Quantity with Quality: Challenges and Concerns in Private Education System," by Raed Awashreh, highlights the critical need for policy reforms, improved educational infrastructure, and more significant community support for sustainability education in the region. In recent years, the MENA region has experienced significant climate changes, which are intensifying annually, creating challenges for the lives of its inhabitants. Drought and increased desertification lead to significant social and economic vulnerabilities. The MENA region is experiencing increased susceptibility to climate change, which poses significant student challenges. This chapter examines the views of post-graduation exchange students who traveled to India to investigate the changing climate and its impact on the vulnerable populations of the MENA region. It also delves into their perspectives on the potential of sustainable education and courses to address these challenges. This chapter employs a blend of two theoretical frameworks, Migration Theory and Vulnerability Theory, to analyze the migration patterns of MENA students seeking improved career opportunities, job creation, and the acquisition of sustainable skills. These factors are driving students to move for better educational and job prospects.

"SDG 5 Unveiled: Visual and Exploratory Analysis of Gender Equality Performance in Selected MENA Universities," authored by Sultana Begum, explores the present state of gender equality and sustainability performance among the Universities in the MENA region. The objective is to assess how institutions contribute to the advancement of SDG 5 (Gender Equality). It examines how universities across the region perform and highlights the success stories and persistent challenges faced by the universities in the region. The methodology involved analyzing gender equality scores, sustainability performance indicators, and institutional rankings, with data sourced from the Times Higher Education Impact Rankings 2024 and regional datasets from reputed institutes like UNESCO and UNSDG. The results show that countries like the United Arab Emirates (UAE), Saudi Arabia, and Qatar stand out for their high-performing institutions, where there are strong policy frameworks, leadership commitment, and global partnerships help to improve gender balance and sustainability performance. In contrast, countries like Iraq, Yemen, and Algeria show persistent gender gaps with many universities struggling to implement effective gender policies due to various factors. Moderate progress is found in countries like Lebanon, Jordan, and Egypt, where gender equality initiatives exist but lack consistency. Overall, the chapter provides data-driven analysis, visualizing the status quo, and trends, and identifies the performance patterns with Maps drawn using the Tableau tool. The chapter provides