

Promoting climate action through youth empowerment and environmental education: Insights from Mohamed Bin Zayed University for Humanities

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Abstract: Climate change is a pressing global challenge that requires immediate action. To address this issue effectively, it is essential to engage and empower the younger generation who will shape the future. This abstract presents the experience of Mohamed Bin Zayed University for Humanities (MBZUH) in UAE in promoting climate action through youth empowerment and environmental education. MBZUH has recognized the significance of incorporating environmental education into its curriculum to foster a generation of environmentally conscious individuals. Through a multidimensional approach, the university has developed innovative strategies to empower students, enabling them to become active participants in addressing climate change. These strategies encompass both formal and informal education, leveraging various platforms and partnerships to create a comprehensive learning environment. This study delves into the initiatives undertaken by MBZUH to empower youth in climate action. It explores the incorporation of environmental education across disciplines, integrating sustainability principles into existing courses, and offering specialized programs focused on environmental science and climate studies. Additionally, it highlights the university's efforts in promoting hands-on learning experiences, such as field trips, research projects, and community engagement, to deepen students' understanding of climate issues and inspire practical action. Furthermore, the study examines the role of MBZUH's collaboration with local and international organizations, governmental bodies, and the wider community in fostering youth empowerment and climate action. It showcases successful partnerships that have resulted in impactful initiatives, including awareness campaigns, capacity-building workshops, and youth-led environmental projects. By sharing the experience of MBZUH, this study aims to provide valuable insights and best practices for promoting climate action through youth empowerment and environmental education. It underscores the importance of empowering the next generation with the knowledge, skills, and motivation to become effective agents of change in addressing climate challenges.

Keywords: climate action; youth empowerment; environmental education (EE); Mohamed Bin Zayed University for Humanities (MBZUH); sustainability; interdisciplinary learning; community engagement

1. Introduction

The global climate crisis has emerged as one of the most pressing challenges facing humanity in the 21st century. The accumulation of greenhouse gases in the Earth's atmosphere, primarily due to human activities such as burning fossil fuels and deforestation, has led to unprecedented changes in our climate system. The consequences of climate change are far-reaching and affect various aspects of our lives, including ecosystems, economies, and human well-being.

The impacts of climate change are already being felt worldwide. Rising temperatures have resulted in more frequent and severe heatwaves, droughts, and

wildfires. Changes in precipitation patterns have led to increased instances of floods and storms. Sea levels are rising, threatening coastal communities and island nations. Furthermore, climate change exacerbates existing social and environmental challenges, such as food and water insecurity, displacement, and biodiversity loss (Wells, 2019).

Given the magnitude of these challenges, addressing climate change requires immediate and collective action from governments, organizations, communities, and individuals. The need to transition towards a low-carbon, sustainable future has become increasingly urgent. However, addressing climate change is not solely the responsibility of policymakers and experts. It requires the active participation and engagement of all sectors of society, including the youth (Klein, 2014).

The urgency of involving young individuals in climate action is evident for several reasons. First, the youth represent a significant demographic group, comprising a substantial portion of the global population. Their energy, passion, and idealism make them powerful agents of change. Secondly, young people have a vested interest in combating climate change because they will inherit the consequences of the actions or inactions taken today. They have a long-term perspective and a desire for a sustainable and equitable future (United Nations, 2019).

Moreover, youth-led climate movements, such as Fridays for Future and the Sunrise Movement, have gained widespread attention and mobilized millions of young people worldwide. These movements have played a pivotal role in raising awareness about climate change, demanding policy action, and pressuring governments to prioritize climate-related issues. The youth have proven their ability to mobilize and advocate for change, demonstrating that they are not merely passive victims of the climate crisis but active participants in shaping their future.

In light of these factors, empowering youth through environmental education becomes crucial. By providing young individuals with the knowledge, skills, and tools to understand and address climate change, we can foster a generation of environmentally conscious and active citizens. Environmental education equips them with the necessary understanding of the complexities of the climate crisis, encourages critical thinking, and enables them to make informed decisions and take action (Tully, 2020).

In the subsequent sections of this paper, we will delve into the significance of youth empowerment and environmental education in promoting climate action. We will explore insights from Mohamed Bin Zayed University for Humanities as a case study, highlighting success stories, lessons learned, challenges, and opportunities. Through this exploration, we aim to shed light on the potential of youth empowerment and environmental education in shaping a sustainable future and inspiring others to take part in the collective efforts to combat climate change.

2. The importance of the youth in climate action

The involvement of youth in climate action is of paramount importance due to several key factors. First and foremost, young individuals hold significant demographic significance worldwide. According to the United Nations, the global population of young people between the ages of 15 and 24 is estimated to be over 1.8

billion, making up approximately one-quarter of the world's population. This demographic weight gives the youth the potential to shape the present and future trajectory of climate action (United Nations, 2017).

Moreover, youth-led climate movements have emerged as powerful catalysts for change. Movements such as Fridays for Future, initiated by the Swedish activist Greta Thunberg, and the Sunrise Movement in the United States have garnered immense attention and mobilized millions of young people across the globe. Through protests, strikes, and advocacy campaigns, these youth-led movements have been instrumental in raising awareness about climate change and its impacts on both local and global scales. They have effectively utilized social media platforms and grassroots organizing to amplify their voices and push for urgent climate action (Hadden, 2020).

The impact of youth-led climate movements extends beyond raising awareness. These movements have played a crucial role in influencing policy discussions and decision-making processes. By demanding immediate and ambitious climate action, young activists have compelled governments and policymakers to prioritize climate-related issues. They have effectively challenged the status quo and sparked conversations on the urgency of transitioning to sustainable and low-carbon economies (Van der, 2021).

Furthermore, the enthusiasm and creativity of young individuals bring a fresh perspective to climate action. Their idealism and innovative thinking can foster new approaches and solutions to address the complex challenges posed by climate change. By harnessing the energy and passion of young people, we can unlock their potential as change agents and catalysts for sustainable development. Engaging youth in climate action not only empowers them but also benefits society as a whole by tapping into their unique skills, ideas, and perspectives (Rode, 2020).

3. Environmental education: What is it and why is it important?

Environmental education plays a crucial role in promoting climate action and empowering young individuals to become active participants in addressing environmental challenges. In this section, we will explore the definition and objectives of environmental education, as well as its role in fostering sustainable behavior and attitudes among youth.

Definition and objectives of environmental education: Environmental education can be defined as a holistic and interdisciplinary approach to learning that focuses on increasing awareness, knowledge, and understanding of the environment and its interconnectedness with social, economic, and ecological systems (UNESCO, 2017).

The objectives of environmental education encompass several key elements. Firstly, environmental education strives to raise awareness and enhance understanding of pressing environmental issues, such as climate change, biodiversity loss, and pollution. It underscores the intricate connection between human activities and the natural world. Additionally, this form of education aims to promote knowledge and comprehension by providing factual information about environmental processes, ecosystems, and the consequences of human actions. Equipping individuals with scientific knowledge enable them to make informed decisions and take responsible actions.

Furthermore, environmental education aspires to foster values and attitudes that promote environmental stewardship, a profound respect for nature, and a sense of responsibility toward sustainable development. It seeks to instill a deep appreciation for the natural world and a genuine desire to protect and conserve it. Finally, a critical objective is the development of skills and competencies necessary to address environmental challenges effectively. These encompass skills such as critical thinking, problem-solving, communication, and collaboration, all of which are essential for driving meaningful climate action and sustainable environmental practices (Kollmuss and Agyeman, 2002).

Education plays a pivotal role in nurturing sustainable behavior and attitudes, particularly in the context of young individuals. By integrating environmental education into both formal and informal learning environments, several critical outcomes can be achieved:

Firstly, environmental education serves to cultivate environmental consciousness. It empowers individuals to understand the environmental consequences of their actions and encourages them to adopt sustainable practices. This leads to a heightened sense of responsibility and a commitment to making environmentally friendly choices.

Secondly, environmental education promotes systems thinking. It encourages individuals to recognize the intricate interconnectedness of social, economic, and environmental systems. This holistic perspective enables them to identify and address the root causes of environmental problems, rather than merely addressing symptoms.

Furthermore, environmental education encourages critical thinking and problem-solving. It equips individuals, especially the youth, with essential skills for analyzing complex environmental issues, evaluating diverse perspectives, and proposing innovative solutions. This capacity to critically evaluate information enables them to effectively navigate environmental challenges and make well-informed decisions.

Lastly, environmental education fosters environmental citizenship. It empowers young individuals to engage actively in local and global environmental issues, turning them into advocates for change. They become more inclined to participate in community initiatives and contribute to sustainable development, embodying the principles of responsible and informed environmental stewardship (Tilbury, 2011).

Empowering youth through environmental knowledge, skills, and critical thinking is of paramount importance in the realm of effective climate action. Environmental education serves as a powerful catalyst in achieving this goal by offering young individuals a multifaceted approach to addressing the pressing challenges of climate change. Firstly, it equips them with a profound understanding of climate change, its underlying causes, and its wide-ranging impacts, thereby increasing awareness and instilling a strong sense of responsibility for addressing these urgent issues. Secondly, environmental education cultivates problem-solving skills, nurturing the ability to think creatively and develop innovative solutions to both mitigate and adapt to climate change, essential attributes for tackling the complex and evolving nature of environmental problems. Moreover, it encourages active participation by providing the knowledge and tools necessary for young people to actively engage in climate action, contributing to sustainable development initiatives, participating in advocacy efforts, and having a meaningful voice in decision-making

processes. Finally, environmental education has the potential to induce long-term behavior change by instilling sustainable values, knowledge, and skills, encouraging young individuals to seamlessly integrate eco-friendly practices into their everyday lives and become lifelong environmental stewards, thus contributing significantly to a more sustainable and resilient future (Chawla, 2012; Hungerford, 1989).

4. Case study: Mohamed Bin Zayed University for Humanities

Mohamed Bin Zayed University for Humanities (MBZUH) is a renowned institution specializing in the humanities and social sciences, with campuses in Abu Dhabi and Ajman. Catering to around 1000 students, the university has embraced a leadership role in sustainability despite its non-scientific focus. Through a variety of local and international initiatives, such as waste management workshops and active participation in COP28, MBZUH has demonstrated its commitment to fostering environmental awareness and preparing students to address pressing global challenges.

4.1. Innovative campus initiatives: Pioneering environmental awareness

Although MBZUH primarily focuses on the humanities, it has actively integrated sustainability into its academic and extracurricular activities. The establishment of the Environment and Sustainability Club in May 2023, with an initial membership of 44 students, has allowed participants to engage in sustainability discussions, initiate environmental projects, and lead campus-wide campaigns to raise environmental awareness. On average, students organize or participate in 13–16 environmentally related activities per year, including initiatives, campaigns, and projects. This club has become a cornerstone of the university's sustainability efforts.

Furthermore, MBZUH leverages modern technologies such as Artificial Intelligence (AI) to address environmental issues through workshops and collaborative initiatives. These programs equip students with the skills to contribute innovative solutions to global environmental challenges. About 15% of MBZUH courses integrate sustainability topics, including the Natural Sciences course, Sustainable Development in Islamic Law and its Applications, and Zayed's Sustainable Legacy course, reflecting the institution's strong commitment to incorporating environmental education. Such academic engagements underscore the university's proactive stance on sustainability, preparing students to tackle complex environmental issues through a multidisciplinary approach.

Large-scale educational initiatives, such as the Ministry of Education Sustainability Workshops, have also played a pivotal role in MBZUH's environmental efforts. Engaging 1651 participants, including university and school students, these workshops promote environmental and leadership education. Notably, programs such as the Leadership and Diplomacy Program (with 1437 participants) and the Green Communities Program (with 218 participants) provide hands-on experiences that encourage active participation in environmental stewardship.

4.2. Community engagement beyond campus: Expanding environmental footprints

MBZUH's environmental initiatives extend beyond its campuses, involving collaborations with both local and international organizations. A significant example is the university's active role in COP28, where it hosted five sessions under the theme "Youth Pioneering Sustainability". These sessions covered various topics, including Campus Green Initiatives, UAE's Green Education Efforts, and Empowering Women through Environmental Education.

At COP28, MBZUH collaborated with prestigious institutions such as the Ministry of Education, UAE Ministry of Climate Change and Environment, and universities like Zayed University, Higher Colleges of Technology (HCT), and University of Wollongong in Dubai (UOWD). The sessions drew 150 participants, with exceptional students being rewarded with laptops to recognize their engagement. Additionally, MBZUH students volunteered in COP28's blue zone, supporting the conference's organizational activities and demonstrating the university's international environmental advocacy.

Beyond COP28, MBZUH has undertaken other sustainability-focused projects. For instance, in partnership with Sorbonne University—Abu Dhabi and Total Energy, MBZUH's Students also participated in La Nuit des Idées, focusing on plastic reduction and proposing creative solutions such as a smart wall for waste separation.

Moreover, MBZUH's external project, the Green June Initiative, saw over 100 students participating in mangrove planting to reduce greenhouse gas emissions. This project exemplified MBZUH's commitment to practical environmental action, providing students with direct experience in climate mitigation efforts.

4.3. Fostering global collaborations: Empowering youth for climate action

MBZUH's collaborations during COP28 extended its influence beyond national borders, highlighting the importance of youth in climate action. **Figure 1** shows the university staff and students partnered with key institutions, including the Ministry of Education, UAE Ministry of Climate Change and Environment, University of Europe for Applied Sciences (Germany), Manchester International Academy, and Université Hassan II de Casablanca (Morocco).

These partnerships provided MBZUH students with the opportunity to engage in global discussions on sustainability, enabling them to build networks with policymakers, researchers, and environmental leaders. By participating in these forums, students developed a deeper understanding of global climate strategies and acquired the necessary skills to contribute to future environmental efforts.

At MBZUH, sustainability initiatives are driven by a strong sense of collective responsibility and cross-institutional cooperation. The university's partnerships with various organizations showcase the power of pooling resources and expertise to develop impactful climate solutions. Notably, approximately 20% of faculty members and 10% of university staff actively contribute to these efforts, working alongside students to reinforce MBZUH's leadership in environmental advocacy. Together, they create a collaborative environment where students are empowered to lead and engage

in meaningful sustainability initiatives. To support these activities and partnerships, the university allocates an annual budget of \$20,000 to \$40,000, ensuring the continued growth and impact of its environmental programs.

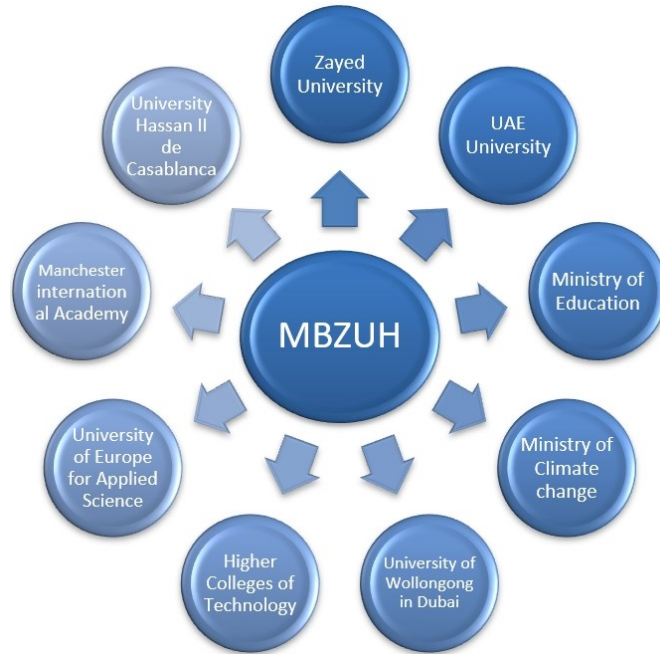


Figure 1. MBZUH collaborations during COP28: A network of institutional partnerships.

4.4. Global goals, local action: MBZUH’s role in achieving the SDGs

Mohamed Bin Zayed University for Humanities (MBZUH) is actively contributing to several United Nations Sustainable Development Goals (SDGs) through its initiatives in environmental education (**Figure 2**), sustainability, and youth empowerment. Although MBZUH’s primary academic focus is not on environmental science, the university’s strategic integration of sustainability across various programs has led to significant contributions to the global sustainability agenda.

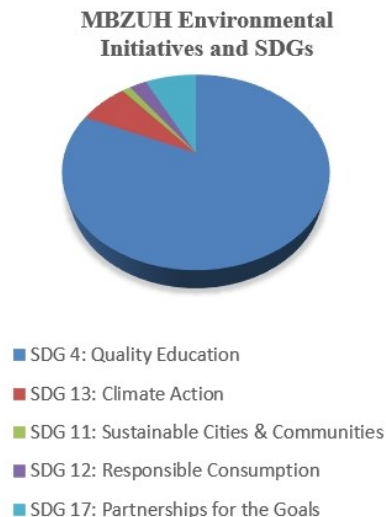


Figure 2. MBZUH environmental initiatives alignment with SDGs.

One of the key SDGs addressed by MBZUH is SDG 4: Quality Education, which emphasizes the importance of inclusive, equitable education that fosters lifelong learning opportunities for all. The university's collaboration with the Ministry of Education led to the development and execution of sustainability workshops that reached 1651 students and teachers across the UAE. These workshops were designed to not only educate students about environmental issues but also to engage MBZUH students as instructors and facilitators, allowing them to take on leadership roles. By actively participating in both learning and teaching, MBZUH students deepened their understanding of sustainability issues, while school students benefited from innovative teaching methods that fostered a greater appreciation for the environment.

In line with SDG 13: Climate Action, MBZUH has undertaken numerous activities to mitigate climate change. The university's June Green Initiative saw the participation of over 100 students in mangrove planting, an activity directly contributing to carbon sequestration. Mangroves play a crucial role in absorbing carbon dioxide, and the university's involvement in this initiative underscores its commitment to practical climate action. The Environment and Sustainability Club, established with 44 members, continues to be a dynamic platform for students to participate in climate-related projects, research, and advocacy, ensuring that youth remain at the forefront of climate action initiatives.

MBZUH's engagement with SDG 11: Sustainable Cities and Communities is reflected in the university's efforts to promote sustainable urban living. Through educational field trips like the Farz Waste Management Visit, MBZUH has provided students with firsthand experience in managing urban waste systems. The visit educated students on the importance of waste segregation and recycling in creating sustainable cities, and how effective waste management strategies can reduce environmental impact. By integrating such practical learning experiences, MBZUH enables students to explore solutions for creating resilient, sustainable urban communities.

In terms of SDG 12: Responsible Consumption and Production, MBZUH has made significant strides in encouraging sustainable practices both on campus and beyond. Through events like La Nuit des Idées, students were challenged to find creative solutions for reducing plastic waste. The outcome was a prize-winning concept for a smart waste-separation wall, an innovation that highlights the university's commitment to fostering responsible consumption. This event not only encouraged students to think critically about waste management but also pushed them to explore innovative ways of minimizing the ecological footprint of consumer practices.

Additionally, MBZUH's contribution to SDG 17: Partnerships for the Goals demonstrates the university's recognition of the importance of collaboration in achieving sustainability targets. The university has formed partnerships with several local and international institutions, including Total Energy, Sorbonne University – Abu Dhabi, the UAE Ministry of Climate Change and Environment, and other universities such as UOWD, ZU, and UAEU. These partnerships have allowed MBZUH to broaden its sustainability efforts, share knowledge, and develop impactful environmental projects. The collaborative framework ensures that MBZUH's initiatives not only benefit the university community but also contribute to the larger

global movement toward achieving the SDGs.

Figure 3 highlights the diverse engagement of MBZUH students in various environmental initiatives, illustrating how their efforts are distributed across different Sustainable Development Goals (SDGs). It showcases the broad scope of student participation, with a notable emphasis on SDG 4 (Quality Education) and SDG 13 (Climate Action), reflecting the university's commitment to fostering environmental awareness and climate action. The chart also underscores the importance of partnerships and sustainable practices, as students actively contribute to SDG 11, SDG 12, and SDG 17, further solidifying MBZUH's role in driving sustainability efforts at both local and global levels.

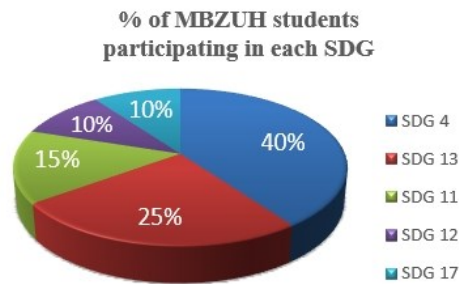


Figure 3. The percentage of MBZUH students participating in each SDG.

5. Challenges and opportunities

MBZUH's efforts to promote youth empowerment and environmental education face several challenges, but these challenges present opportunities for further growth. Limited financial resources and logistical barriers can sometimes restrict the university's ability to scale its initiatives. Integrating environmental education across various disciplines also requires overcoming traditional academic structures and resistance from stakeholders who may not prioritize sustainability in their fields.

However, these challenges offer valuable opportunities. The global recognition of the importance of environmental education continues to grow, opening the door for increased support from policymakers and institutions. Technological advancements provide new avenues for reaching wider audiences through online platforms, virtual learning, and interactive educational tools. Collaborations with government agencies, NGOs, and international organizations allow MBZUH to expand the reach and impact of its initiatives.

By addressing these challenges and leveraging these opportunities, MBZUH can continue to enhance its role in promoting youth empowerment and environmental education, ultimately creating a culture of sustainability that prepares students to take active roles in addressing the climate crisis.

6. Conclusion and call to action

Youth empowerment and environmental education are crucial components of the global effort to combat climate change and build a sustainable future. Through the case study of MBZUH, it becomes clear that integrating environmental education into the curriculum and providing students with opportunities to engage in hands-on

sustainability efforts can have a transformative impact. MBZUH's success in promoting sustainability within the humanities demonstrates the power of youth engagement in fostering climate action and raising environmental awareness.

The challenges that remain, such as limited resources and curriculum integration, must be addressed to scale the impact of these initiatives. However, opportunities for growth abound. Support from policymakers, partnerships with external stakeholders, and the use of innovative technologies will continue to enhance MBZUH's ability to engage students and prepare them for leadership in addressing global environmental challenges.

In conclusion, we call on educational institutions, governments, and industry leaders to prioritize environmental education and youth engagement. By providing young people with the tools and platforms they need to contribute to climate action, we can collectively foster a generation of leaders committed to building a more sustainable and resilient future.

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