



ZAINI SAKAWI
WAN SHAFRINA WAN MOHD JAAFAR
AZRUL IZHAM HAMZAH
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AISYAH MARLIZA MUHMAD KAMARULZAMAN



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Editors:

Zaini Sakawi Wan Shafrina Wan Mohd Jaafar Azrul Izham Hamzah Nurul Asyiqin Abu Bakar Aisyah Marliza Muhmad Kamarulzaman

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## **PREFACE**

The Climate Leaders: Leading the Action Against Climate Change program is a leadership and technical learning series that aims to increase the capacity of climate change practitioners in the Southeast Asian region by helping them to transform communities and at the same time address the effects of climate change. The Climate Leaders: Leading the Action Against Climate Change program is an initiative of the Leadership Sustainability Center (AKEPT) and organized by the Institute of Climate Change, Universiti Kebangsaan Malaysia as one of the commitments in identifying transformations and actions that can be taken to address the major challenges of climate change. This program is designed to shape the university's leadership in strengthening its contribution to the local community and sustainable global community. It will serve as a medium platform to strengthen the university's role in equipping graduates with comprehensive education and understanding global climate change issues.

The aim of this webinar is to gather leaders from higher education institutions in Climate Change across the Association of Southeast Asian Region (ASEAN) to share their insight and thoughts on related issue surrounding climate change and how these leaders play their role through effective leadership in dealing with the climate crisis through local action plans against climate change in Malaysia and the Southeast Asian Region. The main topics of discussion include developing a corporate university culture that engages various stakeholders, managing crises, and adapting to the changing landscape of climate change. Universities are expected to explore innovative strategies to address these challenges, and it is crucial to have strong leadership that can define a clear vision and objectives to navigate this uncharted territory. During the webinar, the panel will share their experiences of effective leadership during times of change within their respective institutions.



I express my utmost gratitude to Allah the Almighty for His grace to bestow upon us the inspiration and ideas for this book to materialize. Another splendid publication as an output by the organization of two series of Webinar on Climate Leaders: Leading the Action Against Climate Change, this has been an astonishing endeavour to produce this book that combines the essence of topics on related issues surrounding climate change and how universities can lead climate action discussed by the forum panellists.

This book comprises two parts that elaborate main topics of the two webinar series, series 1; "Universities and Sustainable Towards a Green Agenda", and series 2; Communities: "University's Role in the Climate Change Battle: Leadership from ASEAN Universities". The parts explicate the critical role of the university in dealing with the effects and impacts of climate change because it is an instrument that uses the knowledge medium factor that can form a union in dealing with climate change. Sustainable development from different perspectives and across various audiences that includes experiences from empirical research, practical projects and teaching methods used around the Southeast Asian region have also been shared to bring sustainable development closer to society from different perspectives. Universities are very influential in holding a significant role in exploring various ways to deal with these changes that are urgent for the need for quality leadership in defining a clearer vision and goals in facing the new frontier.

I would like to express my appreciation to the program's collaborator, Universiti Kebangsaan Malaysia (UKM), specifically under the Institute of Climate Change by making efforts together with AKEPT to provide a knowledge-sharing platform on climate change education by harnessing its transformative power to impact sustainable communities initiated together by universities. I would like to thank everyone who has contributed to this book, particularly to the editors. The materialization of this book has compiled the gist of all the topics discussed, which has been revised for the understanding and benefit of all readers.

#### Dato' Prof. Dr. Nasrudin Mohammed

Director,
Higher Education Leadership Academy
(AKEPT)



### **ACKNOWLEDGEMENT**

In the name of Allah, the Most Merciful, the Most Gracious

All praises to Allah S.W.T for blessing the Taufik and Hidayah and giving us the opportunity, time and strength to complete this book. It is hoped that this book can be a guidance and platform to strengthen university's role through effective leadership in addressing the impact of climate change through an action plan against climate change in Malaysia and the local region of Southeast Asia.

We would like to express our gratitude and appreciation to the Higher Education Leadership Academy (AKEPT) for taking the initiative to fund this excellent program and publish this book. Special gratitude also goes to the speakers for both webinars for their willingness to participate and share their valuable knowledge towards contributing to the theory and acknowledging the important role of higher education in understanding the global climate change and sustainable development. Last but not least, thank you to everyone who was directly or indirectly involved towards the accomplishment of this book.

#### Assoc. Prof. Dr. Zaini Sakawi

Project Leader, Webinar on Climate Leaders: Leading the Action Against Climate Change

# INTRODUCTION: UNIVERSITIES AND SUSTAINABLE COMMUNITIES

Global warming phenomenon due to the emission of greenhouse gases (GHG) from human activities greatly affects the global climate system, and the phenomenon is now at an alarming level. The Southeast Asian region recorded the top position in terms of the number of disaster events in the last 30 years with more than 90 percent of them categorized as climate disasters, and countries in Southeast Asia, needs to pay more serious attention and need to develop an holistic approach and comprehensive strategic to tackle this climate emergency issues.

The university as one of the birthplaces of mature education is an instrument that can form a unity in dealing with climate change, using the medium of knowledge as a factor to equalize the position. This webinar aims at exploring how universities can play an important role in addressing the effects and impacts of climate change and how universities can make a significant contribution to the global local community by equipping graduates with comprehensive knowledge and providing global awareness of the impact of climate change as well as the challenges and success stories.

## UNIVERSITIES AND SUSTAINABLE COMMUNITIES: TOWARDS A GREEN AGENDA



### Assoc. Prof. Dr. Wan Hanna Melini Wan Mohtar (Moderator)

Head, Environmental Management Centre, Institute of Climate Change, UKM, Malaysia

**Prof. Simon Redfern** 

Dean, College of Science President's Chair in Earth Sciences, Asian School of the Environment Nanyang Technological University, Singapore



### Assoc. Prof. Dr. Seree Supharatid

Director, Climate Change and Disaster Centre, Rangsit University, Pathumthani, Thailand



### Ast. Prof. Dr. Meredian Alam

Assistant Professor of Sociology, Sociology and Anthropology Department, University Brunei Darusalam



Assoc. Prof. Dr. Zaini Sakawi

Director, Institute of Climate Change, UKM, Malaysia



## Empowering Universities to Address Climate Change Impacts in Malaysia and Southeast Asia

UKM was chosen as an example in this context. It was revealed that UKM established the Institute of Climate Change, a significant initiative to address climate issues. The conversation underscored the proactive of importance engagement by universities, not only in research but also in implementing sustainability practices. As part of its commitment, UKM has ventured into collaborations international introduced specialized courses focused on climate change, marking its dedication to educating future generations on this critical issue.

Reduction of emissions

Efficient use of energy

Embrace sustainable practices

Advocate for government policies

A critical point raised was the role of individuals and communities in driving change. It was emphasized that every person has the power to influence local and global efforts to combat global warming. The phrase "think globally, act locally" encapsulates the idea that collective individual actions can have a profound impact on the global climate crisis.

# Tailoring Academic Courses and Programs to Address Climate Change without Compromising Technical Content

## Preparedness for climate change among students

Nearly 80% of the 110 students who participated in the network's study thought their courses had not adequately prepared them for employment in a world where the climate is collapsing (Nugent, 2021).



Climate change is a pressing issue with limited resources and growth limits. Universities should focus on adaptation and mitigation solutions, addressing challenges like sea level rise, flooding, heat changes, pathogens, and the interaction between health, climate, and sustainability.

NTU Singapore, for instance, has implemented an interdisciplinary common curriculum, involving first and second-year students from various disciplines to discuss major challenges. This approach encourages students to generate their own thoughts and work together to find solutions. The curriculum's relevance is addressed by allowing students to communicate and find their own ways to address these problems, making them more engaged and motivated to contribute to climate change and the planet's future.

66

In Earth and environmental sciences, we often prioritize understanding the complex problems related to climate change. The challenge lies in comprehending the intricate Earth system and its feedback mechanisms. Achieving accurate projections for future climate change is an ongoing challenge, and gaining a precise understanding of these complexities is the initial step in seeking solutions.

- Professor Marcia McNutt

# Fostering University Contributions to Climate Change and Green Agenda through Grassroots Community Projects

Initiatives taken by universities to promote collaborative learning and engagement with different stakeholders in addressing environmental sustainability and climate change:



In the Faculty of Arts and Social Sciences, we offer modules that are open to students from various faculties, including the Faculty of Science and the Faculty of Health Sciences. These modules cover a range of subjects, including geography, sociology, and anthropology. An example of such a module is "Introduction to Environmental Issues and Environmental Sustainability." In this module, students from different backgrounds collaborate on

- Ast. Prof. Dr. Meredian Alam

problem-based projects related to various

themes, allowing them to explore topics of

personal interest.

# Utilizing Knowledge and Voice for Climate Change Awareness: Simplifying Technical Climate Concepts for Public Understanding

TOTAL DAMAGE AND LOSSES FROM THE 2011 FLOODS IN THAILAND

## 1.43 trillion

>30 million people affected >680 deaths

Thailand is facing a severe flooding crisis, with the 2011 flood causing economic losses of 1.4 trillion baht. The government's lack of reliable flood information has led to citizens relying on online social networks for information, which may not always provide accurate data. Unequal protection is also prevalent, with economic zones taking precedence over vulnerable areas. Academic experts play a critical role in addressing these issues by simplifying scientific data and creating infographics for media dissemination.



Source: Mygosto. "Thai Flood-5." Flickr, 2nd November 2023, https://www.flickr.com/photos/66834746@N03/6422703747/

However, the primary focus remains on long-term solutions, particularly in the context of climate change. The 2021 COP26 conference's results may not meet the Paris Agreement's commitments, leading to a sense of hopelessness. In Thailand, the concept of sustainability is relatively new, with short-term gains often preceding long-term considerations. Despite these challenges, academic experts and community networks continue to work to enhance climate change awareness, implement adaptation strategies, and encourage sustainable practices.

In Thailand, the term "sustainability" is relatively new and somewhat abstract for the general public. People tend to prioritize short-term benefits over long-term considerations. Climate change awareness and adaptation are seen as challenging tasks due to this mindset. Therefore, the focus is on enhancing community networks to raise awareness, particularly about adaptation measures."

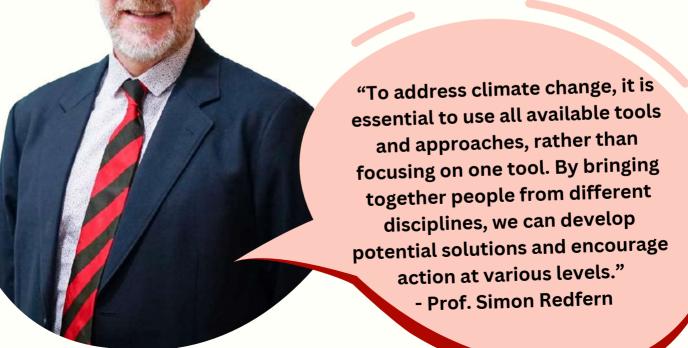
- Assoc. Prof. Dr. Seree Supharatid

# Enhancing Climate Change Assessment: Insights from NTU's Best Tools and Modules

## Student engagement and collaboration

# WHAT NTU Carbon-related association DIDP Biology-based assessment





## Evaluating Educational Readiness in Malaysia

I strongly believe that engaging the community and the younger generation is the key to successfully mitigating and adapting to climate change. At our university and others in Malaysia, we have conducted extensive research on the impacts of climate change, proving its urgency. However, our focus must now shift towards incorporating climate change education into the school syllabus, starting from primary and secondary levels.

Currently, science textbooks cover general topics, but there's a lack of specific discussions on climate change and environmental management. It's time to collaborate with the Ministry of Education to develop a comprehensive syllabus that goes beyond theories. We should involve students in field visits and real-world experiences to witness the impacts of climate change firsthand.

I firmly believe that early exposure to climate-related challenges will empower students with the knowledge and motivation to devise effective mitigation strategies. By involving the government and educational authorities in the process, we can create an impactful climate change syllabus that shapes the minds of the future generation to be proactive and responsible environmental stewards.

- Assoc. Prof. Dr. Zaini Sakawi

## Preparing Tomorrow's Leaders: Climate Change Adaptation Education for Students

The program's practical component involved students participating in real-world projects and community meetings to foster discussions and collaborative solutions on climate change. This systematic approach significantly contributed to students' understanding of the subject, despite academic limitations in teaching technical aspects. The focus was on appreciating knowledge and solutions within their respective fields.

- Ast. Prof. Dr. Meredian Alam

Creating specialized courses tailored for underserved communities, with reduced tuition fees and certificates for career advancement, is a commendable initiative. For instance, the University of Oslo's academic program provides holistic education on climate change, covering scientific aspects like sea-level rise and greenhouse gases, as well as exploring consequences and mitigation strategies at local and global levels. The program emphasizes adaptation strategies involving various stakeholders, including government, community leaders, civil society, and religious organizations.

## Examining the Program Structure at Rangsit University

choose to study climate change as their major course in Thailand. It seems that graduates in fields like engineering have better job opportunities, but for those specializing in climate change, there may be limited options, especially in government jobs.

Another issue I've noticed is the gap between the strong community networks and the policy-makers. The local communities often lack a significant voice in decision-making, especially when it comes to projects in their areas. I believe that local leaders, such as governors, should be elected by the people to ensure their needs and concerns are adequately represented in climate change adaptations and other policies. This is my opinion on the matter, and I believe addressing these challenges is essential for creating a more resilient and sustainable community.

- Assoc. Prof. Dr. Seree Supharatid

# Bridging the Gap: Unlocking Career Opportunities in Climate Change and Sustainability



Source: Quang Nguyen Vinh. "Anonymous ethnic harvesters collecting tea leaves in agricultural field." Pexels, 2nd November 2023, https://www.canva.com/photos/MAEP44tX2KM/

While concerns exist about job prospects for graduates with climate change degrees, the field of sustainability is gaining importance in various sectors, including business and government. Forward-thinking organizations recognize the need to address climate risks and sustainability. Industries like agriculture, energy, and finance seek professionals skilled in climate risk assessment for informed decision-making. Demonstrating the value of climate change and sustainability qualifications to potential employers is crucial. Emphasizing skills like climate risk assessment and sustainability practices can bridge the gap between academic programs and industry needs, offering students better job opportunities and promoting sustainability.

# Community-Centric Governance and Multidisciplinary Perspectives on Climate Change

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As I mentioned earlier, this is a common practice in many developed countries. Local governments are typically elected by the people, which means that if they fail to connect with and serve the community effectively, especially on climate-related issues, they risk not being re-elected in the next term, whether it's two or four years. Therefore, it's crucial to work closely with the community.

I concur with Professor Simon's viewpoint that having a multidisciplinary approach is essential. It's not limited to climate change topics alone. Students who possess knowledge of scientific principles and computer programming languages like AI, Matlab, or Python can secure excellent job opportunities because they can apply their skills in various fields. On the other hand, students who focus solely on climate change may have a deep understanding of the subject, but their employment prospects could be limited.

- Assoc. Prof. Dr. Seree Supharatid

# Fostering Climate Resilience through Community-Based Adaptation in ASEAN Nations: Cultural Dynamics and Engagement

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In my opinion, community-based adaptation can indeed increase climate resilience. It is important to work with different cultures to address climate change effectively. While cultures may vary in different ASEAN countries like Brunei, Singapore, Thailand, and Malaysia, the common goal is to reduce the impacts of climate change on communities. Community involvement is crucial in environmental management and climate change awareness.

The community plays a significant role as the most sensitive receptor affected by climate change. Climate change solutions require a holistic approach and collective action. To achieve climate resilience, we can become citizen scientists, share climate change concerns with others, organize community efforts, and take political actions to advocate for climate-friendly policies. Despite cultural differences, communities can improve climate resilience by appreciating and preserving their local environment and traditional knowledge.

- Assoc. Prof. Dr. Zaini Sakawi

## The Impact of Cultural Differences on Climate Change Engagement and Awareness

The cultural differences across ethnicity, races, and subcultures play a significant role in addressing climate change, especially when it comes to medications and adaptation strategies. There are three key things that we can do with the community to foster climate resilience, namely:



Cultural capital within communities, including local knowledge, should be integrated into climate initiatives.

Technology and tools, like mobile phones and messaging apps, aid in climate information dissemination.



3

Collaboration among various community stakeholders, such as government, NGOs, and businesses, is crucial for effective climate governance.

# Accelerating Climate Change Information Dissemination: Meeting Community Expectations

Community engagement is essential for addressing climate change and complex issues like urban relocation. Learning from the experiences of countries like Indonesia, which decided to move its capital to Kalimantan, can offer valuable insights into knowledge dissemination, public education, and stakeholder involvement. Large-scale projects involving multiple stakeholders require careful management to navigate business interests, land prices, and community concerns. Successful and sustainable solutions to climate change and other challenges are achievable through collaboration, shared knowledge, and active community engagement, paving the way for a more resilient and sustainable future.

For instance, in Thailand, the challenge of relocating Bangkok requires a careful and well-organized approach, considering the diverse opinions and interests of stakeholders involved. Learning from countries like the Netherlands, Venice, Korea, or Japan, where such large-scale projects have been undertaken, can provide valuable lessons on how to handle complex issues like this effectively.

- Assoc. Prof. Dr. Seree Supharatid

# Addressing Challenges in Climate Change Mitigation and Adaptation: Strategies for Effective Implementation

Persuading people about the economic benefits and long-term impact of addressing climate change is indeed a challenge. Different time scales and priorities among politicians and stakeholders often create obstacles in implementing effective solutions. One key factor is the short-term focus of elected officials, who may prioritize policies that yield immediate results or align with their election cycles.

## ADAPTATION AND MITIGATION STRATEGIES

#### 1. Youth influence

Pointing out the significance of young voters, consumers, and business leaders in shaping policies and decision-making due to their long-term stake in the issue.

#### 3. Global initiatives and conferences

Mentioning the role of international conferences like COP and global initiatives like the UN's Sustainable Development Goals in addressing long-term environmental challenges.

#### 2. Role of universities

Recognizing the role of universities as long-term institutions in educating and influencing the younger generation, who will bear the consequences of current decisions.

#### 4. Youth-led activism

Highlighting examples like Extinction Rebellion to illustrate how youth-led activism can influence public opinion and environmental policies.

# Equity in Climate Action: Empowering Vulnerable Communities through the Green Agenda

Universities play a crucial role in educating the next generation of leaders, teachers, and the marginalized, who can potentially shape policy and behavior. Short-term needs like housing, jobs, and food often take precedence over long-term plans, so it is essential to support the marginalized while promoting sustainable lifestyles. The energy transition, advocated by groups like Extinction Rebellion, is essential for addressing the climate crisis but also brings potential energy poverty. Transitioning to sustainable energy requires economic changes, and managing this transition without further marginalizing the poorest is a critical consideration. These problems are systemic and require thoughtful, comprehensive solutions. Universities should lead in thought leadership and provide advice to policymakers on these complex topics, ensuring that the marginalized are not further marginalized.

While energy transition is essential for addressing the climate crisis, it also brings potential energy poverty. Cheap energy from fossil fuels has contributed to the current crisis, and transitioning to sustainable energy will involve economic changes. Managing this transition without further marginalizing the poorest in society is a critical consideration.

-Prof. Simon Redfern



## Empowering Communities to Reduce Plastic Usage: Strategies for Maximizing Potential

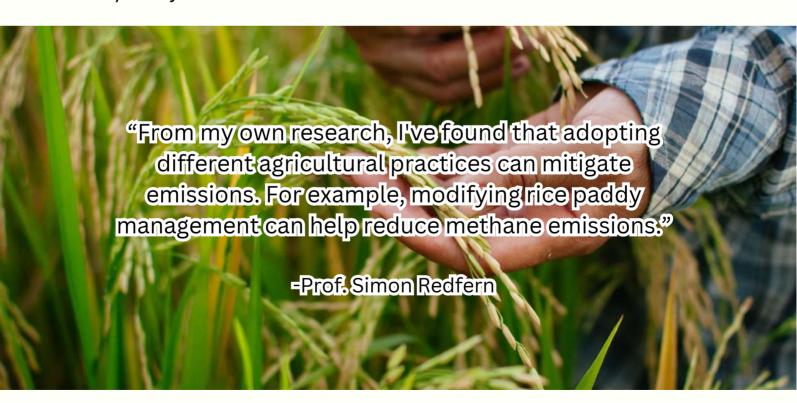
We've engaged in numerous programs, involving both the community and local stakeholders. However, the crucial aspect lies in the implementation process. This perspective comes from not only my point of view, but also from the research my students and I have conducted on waste management at the community level. While we excel in technical research and guidelines, we find ourselves lacking when it comes to execution. Our team has noticed that many communities are adept at reducing plastic usage, yet struggle with the implementation phase. There's a discrepancy between awareness and action.

Furthermore, some businesses even offer minor incentives, such as discounts for not using plastic bags, highlighting people's willingness to cooperate. In my assessment, the heart of the matter is enforcement. Comparatively, countries with more stringent regulations tend to succeed in waste management. In contrast, Malaysia faces challenges in this area. It's imperative that we address this gap and focus on effective enforcement to bridge the divide between awareness and practice. This, in my opinion, is a key consideration.

- Assoc. Prof. Dr. Zaini Sakawi

# Equipping ASEAN Communities to Address Climate Change's Impact on Agriculture

Climate change significantly impacts agriculture, especially rice production. Solutions involve genetically modified crops to reduce agrochemical use and mitigate emissions. On the consumption front, understanding the climate impact of foods, like beef having a high impact and vegetarianism a lower one, is important. However, shifting societal expectations, particularly regarding increased meat consumption, is challenging. Climate change also affects agriculture through changes in water and temperature, with varying regional and ecosystem impacts. Adaptation is essential in addressing these multifaceted challenges that impact every aspect of life beyond just the climate.



Source: Suxco. "Untitled." Pexels, 2nd November 2023, https://www.canva.com/photos/MAEP44tX2KM/

### UNIVERSITY'S ROLE IN THE CLIMATE CHANGE BATTLE: LEADERSHIP FROM ASEAN UNIVERSITIES



Assoc. Prof. Dr. Sharina Abdul Halim (Moderator)

Deputy Director, Institute for Environment and Development (LESTARI) UKM, Malaysia

Assoc. Prof. Datuk Dr. Ramzah Dambul

Chief Executive Officer, Institute for Development Studies, Sabah, Malaysia



L.Arch. James Christopher P. Buño

Director, Diliman Environmental Management Office, University of Philippines Diliman, Philippines



Professor Banchong Mahaisavariya

President, Mahidol University, Thailand



### Professor Djoko Santoso Abi Suroso

Director of Climate Change Center, Institute of Technology Bandung, Indonesia



## Maximizing University Leadership and Expertise in Combating Climate Change in Diverse Asian Climates



In the context of addressing climate change, it is crucial to recognize the importance of university knowledge. To make the most of this knowledge, bridging the gap between universities and the external sector is essential. Policies be implemented to facilitate effective communication between universities, industries, and communities. Engaging universities in climate change research and incentivizing successful studies is a valuable approach to ensure that the generated knowledge benefits society as a whole. Furthermore, scientists in universities should proactively engage with the community enhance the understanding and application knowledge. Additionally, universities must ensure that their knowledge and research are geared towards problemsolving and positive environmental and community impact. Effective communication with industry and the community is key to maximizing the benefits of this knowledge in addressing climate change.

-Assoc. Prof. Datuk Dr. Ramzah Dambul

Collaboration between universities and government agencies is essential to utilize research in shaping climate policies and sustainable development at national and local levels.

-Professor Djoko Santoso Abi Suroso



I am highlighting the critical role of higher education with a strong ethical foundation. Researchers should continuously develop their knowledge, skills, and adapt to emerging technologies. Universities are entrusted with the mission of conducting research, fostering innovation, and solving problems. Engaging with the community is essential in pursuing these objectives. Universities nurture future leaders and experts while fostering connections with mentors from diverse disciplines. Both domestic and international collaborations are vital, and global university research should provide the essential knowledge to address issues like climate change.

-Professor Banchong Mahaisavariya



Efforts to combat climate change must prioritize the translation of knowledge into actionable solutions for maximum effectiveness.. Besides acquiring knowledge, universities must prioritize research and practical innovation to address climate change. They actively collaborate with industries and local communities to promote green technologies and sustainable lifestyles. By integrating knowledge and action, universities can serve as drivers for climate change mitigation and expedite the shift towards sustainability.

-L.Arch. James Christopher P. Buño

## Adapting Higher Education Leadership to Post-Covid Era: Implications for Climate Change Initiatives



1

Datuk Dr. Ramzah emphasized the importance of addressing climate change comprehensively across disciplines, particularly in Malaysian universities. He highlighted the need to shift from specialization to multidisciplinary approaches and integrate climate change into various fields, including engineering and medicine. This holistic approach is essential to effectively tackle the impacts of climate change and promote sustainability.



Source: Piyaset. "Climate Change compare image with drought, green field and ocean metaphor." Getty Images Pro, 2nd November 2023,

https://www.canva.com/photos/MADuPkdib5g/

Education through example is essential for raising awareness and promoting responsible action for a sustainable environment.

-Professor Banchong Mahaisavariya



2

Professor Banchong highlighted climate change as a critical global issue with significant environmental and societal impacts. He commended Mahidol University's efforts, including projects for sustainability and education, as examples for others to follow in addressing climate change.



Source: Fauxels. "Photo Of People Near Wooden Table." Pexels, 2nd November 2023, https://www.canva.com/photos/MADyQ\_pttCc/



Landscape Arch James presented Diliman University as a hub for academic programs related to environmental studies and climate change. Various courses and research projects have contributed to industry and society. They also engage in national service training with a focus on disaster risk reduction and environmental protection. The university promotes sustainability through green initiatives on campus.



Ч

Prof. Djoko highlighted multidisciplinary approaches to climate change mitigation and adaptation. The IDB leverages its scientific expertise with departments in meteorology, oceanography, agricultural engineering, and design. Research spans weather forecasting and impact assessments across sectors like fisheries and agriculture. Recent investigations into sea surface temperatures and coral reefs in Raja Ampat were shared, with findings contributing to awareness and policymaking in the Ministry of Marine and Fisheries.

## Leveraging University-Community Collaboration for Positive Climate Action

Climate change and non-climate change sectors are intertwined, with coastal regions facing greater land subsidence than sea-level rise. Climate-induced weather factors predominate in floods, while land-use changes upstream significantly affect climate issues. A comprehensive assessment at multiple levels, involving local universities, is vital. Effective climate change solutions necessitate collaboration with the political sector.

-Professor Djoko Santoso Abi Suroso

While societies seek security, it should also lead well-being. Overemphasis on societal increasing customer demand in business can lead to resource overuse and future problems, negatively impacting the planet. Slowing resource consumption, adopting green energy economies, and considering and circular effects crucial for environmental are sustainability. Thailand's government Mahidol University align with these principles. Professor also mentioned the Ubuntu philosophy.

2

<sup>-</sup>Professor Banchong Mahaisavariya



3

Policy programs should involve dialogue and cooperation with community sectors, aligning with climate justice. Climate change disproportionately affects some communities. Awareness that affected communities are part of the solution is crucial. Local efforts to address constraints benefit everyone, including regions and nations.

-L. Arch. James Christopher P. Buño



Source: izanbar. "Climate Justice Banner outside building." Getty Images, 2nd November 2023, https://www.canva.com/photos/MADm8bip4sI/

#### Enhancing Climate Change Policies and Initiatives in Southeast Asian Universities and the ASEAN Region



Source: panida wijitpanya. "national flags of Southeast asia countries, AEC, ASEAN Economic Community flags." Getty Images, 2nd November 2023, https://www.canva.com/photos/MADNXSj\_PYQ/

Universities and communities frequently collaborate on initiatives, addressing local priorities while sharing expertise and best practices, promoting effective solutions within and beyond ASEAN. Inter-university issues in ASEAN are rare, fostering regional and international cooperation in tackling shared challenges.

Additionally, leveraging universities' unique strengths across ASEAN nations, such as expertise in agriculture, coastal management, and IT systems, enhances both adaptation and mitigation efforts against climate change. Lessons from transitioning to renewable energy sources can be valuable in addressing Indonesia's expected greenhouse gas emissions by 2030.

Building a common understanding among ASEAN universities, given their shared climate challenges and geographic conditions, is essential for effective climate action through partnerships and information sharing. This collaborative approach aims to maximize the positive impact of universities and communities in addressing climate change and related issues in Southeast Asia.



#### **Ask Us Questions**

Type Something...

Is the problem of climate change related to the behavior problems of community groups, such as the example of burning forests? What are the preventive methods from a sociocultural perspective?

#### >>>>>>ANSWER

Forest fires and illegal logging are often driven by economic needs, not all community members are responsible. To address these issues, community-based environmental assessments should be conducted to understand the root causes and offer tailored solutions. Alternatives could include employment opportunities, non-financial incentives, and government support for environmental protection. Traditional folklores can also be incorporated to educate and foster a stronger connection between people and their environment.

#### Ast. Prof. Dr. Meredian Alam

What is the role that academia can play in addressing climate change and its impacts, beyond traditional academic programs like master's and PhD degrees?

#### >>>>>> ANSWER

The role of academia in addressing climate change extends beyond traditional education and degrees. It involves knowledge transfer to communities, as seen through initiatives like C-NATO and tree conservation projects, aimed at fostering awareness and influencing behaviors. Community engagement and consistent enforcement of environmental practices are key components of academia's contribution to climate change mitigation and adaptation.

Assoc. Prof. Dr. Zaini Sakawi



Is climate change a reversible process?

#### >>>>>> ANSWER

In my firsthand experience, climate change is an irreversible and worsening reality. For 25 years, I lived in coastal regions where I witnessed the relentless rise in sea levels. This annual event serves as a haunting reminder of climate change's tangible effects. Beyond rising sea levels, prolonged droughts have adversely affected local farmers, forcing them to adapt to changing conditions, including less effective organic fertilizers.

Additionally, my visits home revealed distressing stories of stranded whales and dolphins in the bay. These creatures have become disoriented by rapidly shifting ocean climates, impacting their survival. This trend of stranded marine life has increased significantly over the past decade. These personal experiences highlight that climate change is not a distant issue but a pressing reality with profound environmental consequences.

#### Ast. Prof. Dr. Meredian Alam

Is climate change a reversible process?

#### >>>>>>ANSWER

Not within our human time frame. While adaptation is crucial on our timescale, we must not stop there. Striving for negative emissions is essential, even as we move into the next century. This approach is critical for a sustainable future in the face of the ongoing and intensifying climate challenges.

#### QUESTION>>>>>>>>>

What happen if we do nothing to stop climate change?

#### >>>>>> ANSWER

Earth's natural ability to self-regulate is evident in the paleocene eocene thermal maximum 53 million years ago. However, our current carbon emissions, primarily from burning fossil fuels, release carbon stored in the Earth for millions of years. The real issue is the impact on humans and biodiversity. We are currently in the sixth mass extinction event, and our task is to learn from this to address current problems. Research focuses on speeding up Earth's natural feedback mechanisms to control greenhouse gases. To achieve a 2-degree limit, we need to go negative, removing CO2 from the atmosphere and storing it in plants, rocks, and oceans.

#### Prof. Simon Redfern



What are the consequences if no action is taken to mitigate climate change?

#### >>>>>> ANSWER

The latest IPCC AR-6 report suggests that rising temperatures are attributed to human activities, not natural forces. However, predicting the future is challenging due to limitations in our knowledge and predictions. The Earth's climate is intricately linked, and even a slight temperature increase can lead to cascading effects like heatwaves and storms. If emissions are not curbed, the likelihood of severe consequences is high. More frequent extreme events and potential shifts in long-term climate patterns are anticipated. Proactive action is crucial to mitigate climate change and its impacts, even if we don't witness the Earth splitting into two.



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Are there standardized guidelines for operational climate change efforts, and should universities create local standards to ensure the integrity of climate change measurements?

#### >>>>>> ANSWER

Higher education institutions, with their scholarly expertise and lack of bias, have a responsibility to collaborate and share truths with society. They should also advocate for policies and governance that align with their knowledge, indirectly influencing the private sector and government. The goal is to use information to empower society, enabling it to shape private sector actions and government policies to achieve collective objectives. This, is from the perspective view on the fundamental role of higher education institutions.

Professor Banchong Mahaisavariya

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Are there standardized guidelines for operational climate change efforts, and should universities create local standards to ensure the integrity of climate change measurements?

#### >>>>>>ANSWER

The significance of collaboration between universities and external sectors, particularly the private industry. They argue that while universities may have scientifically sound recommendations, imposing them directly on the private sector is not feasible. Instead, they emphasize the importance of professionals working alongside universities to promote and implement standards related to climate change. This collaboration is seen as vital for improving industry operations and climate addressing change concerns, recognizing that all sectors are affected and have a stake in this issue.



How can we balance the shift from fossil fuels to more expensive renewable energy sources, which affects vulnerable groups, especially in third-world countries, by raising food and service costs and reducing job opportunities?

#### >>>>>>ANSWER

Balancing livelihood and environmental protection during the transition from fossil fuels to renewables is challenging. The emphasis should shift away from costly green technology towards changing lifestyles. This perspective highlights that climate change is driven by human greed and disproportionately impacts the underprivileged. Promoting sustainable lifestyles at both individual and industry levels remains crucial. The focus on a long-term approach, coupled with policies to produce only what's necessary, offers a pathway to achieve the balance required to tackle climate change.



Assoc. Prof. Datuk Dr. Ramzah Dambul

How can we balance the shift from fossil fuels to more expensive renewable energy sources, which affects vulnerable groups, especially in third-world countries, by raising food and service costs and reducing job opportunities?

#### >>>>>>ANSWER

It's essential to emphasize that the world has enough for everyone's needs but not for everyone's greed. This perspective highlights the crucial role of higher education institutions in inspiring students to prioritize integrity, responsibility, and a deep understanding of societal issues. Beyond imparting knowledge, higher education should cultivate future leaders who consider the long-term effects of their actions on the community and society. This approach embodies the philosophy of Ubuntu from South Africa, focusing on responsibility and the well-being of future generations, making higher education's mission even more significant.

Professor Banchong Mahaisavariya

How can we balance the shift from fossil fuels to more expensive renewable energy sources, which affects vulnerable groups, especially in third-world countries, by raising food and service costs and reducing job opportunities?

#### >>>>>>ANSWER

The role of universities in addressing climate change through green energy is questioned. It is suggested that universities serve as crucial platforms for discussion and innovative problemsolving, even when scientific answers aren't readily available. They emphasize the importance of universities, particularly national ones, using their influence to advocate for the welfare of the people in policymaking activities and research, aligning their efforts with the public's agenda and the betterment of society.

L.Arch. James Christopher P. Buño



Are we on track to meet the Sustainable Development Goals as we approach the year 2030, and how do you envision our progress in achieving them?

#### >>>>>> ANSWER

Universities should reevaluate their focus on climate change and emphasize empowering local communities through their unique traditional knowledge. They argue that the current emphasis on mitigation and adaptation strategies often neglects the underprivileged, who lack resources and means to adapt. The importance of reviving indigenous practices and empowering communities based on their environmental contexts. This approach, tailored to each community, can serve as a valuable tool against the impacts of climate change. Universities worldwide, according to the author, should lead in this initiative to empower communities with their traditional knowledge as a defense against climate change.

Assoc. Prof. Datuk Dr. Ramzah Dambul

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Are we on track to meet the Sustainable Development Goals as we approach the year 2030, and how do you envision our progress in achieving them?

#### >>>>>>ANSWER

The transition from the U.N.'s Millennium Development Goals (MDGs) to the Sustainable Development Goals (SDGs) with a focus on the importance of peace and partnership (the additional "P"s) in achieving these goals. The role of higher education institutions as centers for knowledge creation, global networking, and training future leaders. While institutions cannot address all SDGs, they should leverage their strengths and contribute in areas where they excel. The significance of supporting neighboring achieving well-being and in countries sustainability, as it indirectly benefits one's own nation is being highlighted. His opinion emphasizes collective efforts by institutions to make a positive global impact on sustainability and SDGs.

Professor Banchong Mahaisavariya

### **Essential Insights**

- Universities play a crucial role in promoting sustainable communities and a green agenda
- Cultural differences can impact climate change efforts, including adaptation strategies
- Mobile Technology and messaging apps, can aid in disseminating climate information
- Persuading people about the economic benefits and long-term impact of addressing climate change can be challenging
- Short-term focus and priorities of elected officials can create obstacles in implementing effective climate change solutions
- Effective enforcement is crucial to bridge the gap between awareness and practice in addressing climate change

# Climate Leaders LEADING THE ACTION AGAINST CLIMATE CHANGE

A webinar titled "The Climate Leaders: Leading the Action Against Climate Change" was organized by the Higher Education Leadership Academy (AKEPT) in collaboration with Institute of Climate Change (IPI), Universiti Kebangsaan Malaysia (UKM). Universities contribute to sustainable communities fostering industry-university partnerships and sharing knowledge and experiences in managing such collaborations. Universities, as centers of education, have the capacity to make a substantial impact in addressing climate change. The topic covered It emphasizes the Southeast Asian region's vulnerability to climate disasters, with a significant number of events categorized as climate-related. Releasing this book, which compiles the essential topics discussed in the webinar, is essential to quarantee that the information provided reaches a broader audience.







