



# **R5.5. ANGEL Policy recommendation 2**

WP 5. Dissemination and Exploitation

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## **Executive Summary**

Green entrepreneurship and leadership are critical for advancing sustainable development in the ASEAN region. This policy brief, part of the ASEAN Network for Green Entrepreneurship and Leadership (ANGEL) initiative under the Erasmus Capacity Building for Higher Education, explores the current landscape of green entrepreneurship in ASEAN, focusing on five countries: Malaysia, Indonesia, Vietnam, Cambodia, and the Lao People's Democratic Republic. It highlights success stories, ongoing challenges, and provides strategic recommendations for fostering a green economy. This brief aims to guide policymakers, academic institutions, and entrepreneurs in adopting policies that enhance green business ecosystems, enabling the region to meet its sustainability goals.

Countries like Indonesia, Malaysia, and Vietnam have made notable progress through renewable energy initiatives, sustainable agriculture, and eco-tourism. However, common obstacles such as limited financing, regulatory barriers, and inadequate infrastructure persist, particularly in Cambodia and Lao PDR. These challenges are compounded by climate change, which threatens both agricultural productivity and economic stability across the region.

To address these issues, this brief underscores the importance of government, private sector, and international collaboration. It emphasizes the need for enhanced educational frameworks, particularly in higher education, to cultivate future leaders who can drive sustainable economic growth. The ANGEL project, supported by the European Union, plays a key role in building the capacity of universities and marginalized communities, providing education, mentorship, and funding opportunities for green startups.

Key recommendations include strengthening regional collaboration, simplifying regulatory frameworks, expanding access to green financing, and promoting public-private partnerships. By leveraging these strategies, ASEAN can accelerate its transition toward a more sustainable and resilient future.

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# 1. Introduction

Green entrepreneurship and leadership are increasingly recognized as vital components for achieving sustainable development in the ASEAN region. As ASEAN member countries strive to balance economic growth with environmental stewardship, the promotion of green businesses and innovative leadership becomes essential. This policy brief explores the current landscape of green entrepreneurship and leadership across selected ASEAN countries (Malaysia, Indonesia, Vietnam, Republic of Lao and Cambodia), highlighting key initiatives, success stories, and the challenges that need to be addressed which leads to several key recommendations.

Specific ASEAN nation-members are making significant strides in fostering green entrepreneurship. These nations are leveraging their unique strengths and resources to drive sustainable practices in various sectors, including renewable energy, sustainable agriculture, and eco-tourism. Nation-members that have started their strides toward green transitions such as Indonesia is burgeoned with renewable energy startups, Malaysia is flourished with government-backed green technology initiatives, and Singapore is well-ahead with its ambitious Green Plan 2030. They exemplify the region's commitment to sustainability while other nation-members follow despite vulnerable climate change that ripple their agricultural sector and economic stability.

Each ASEAN nations faces distinct challenges. Aside from the adverse effects of climate change, there are common obstacles namely limited access to financing, regulatory barriers, insufficient infrastructure, and the need for greater public awareness and education on sustainability. Additionally, countries like Cambodia and the Republic of Lao grapple with issues such as governance and a lack of skilled workforce, which hinder the full realization of their green potential.

This policy brief aims to provide a comprehensive overview of the state of green entrepreneurship and leadership in the ASEAN region. It underscores the importance of continued support from governments, private sectors, and international organizations in overcoming these challenges. This document also highlights the most recent regional effort under the Erasmus Capacity Building for Higher Education project, funded by the European Union, named ANGEL (ASEAN Network for Green Entrepreneurship and Leadership) which not only explores the current state and gaps in green entrepreneurship and leadership of selected ASEAN nations, but also depict EU-ASEAN regional collaboration initiatives within the boundary of higher education in fostering the socio-economic aspects of green transition. The policy recommendation fosters a collaborative approach for enhancing green economies, contributing to a more sustainable and resilient future for the region.







2. Current state of Green Entrepreneurship and Leadership in Malaysia, Cambodia, Indonesia, Vietnam and Lao PDR



#### MALAYSIA

In recent years, Malaysia has emerged as a proactive player in the realm of green entrepreneurship and leadership. This transformation is driven by a blend of government initiatives, private sector engagement, and international collaborations, all aimed at fostering a sustainable future. Currently, Malaysia stands at a crucial point in its journey towards sustainable development. As a key member of the ASEAN community, Malaysia's strides in green entrepreneurship and leadership are vital for regional progress.

In terms of green entrepreneurship, the country is driven by both government initiatives and private sector innovation. The early-stage entrepreneurial activity (TEA) rate in Malaysia was 15.4% in 2021, slightly above the Southeast Asian average of 14.9%. This indicates a robust entrepreneurial ecosystem that is increasingly embracing sustainable practices. Key sectors contributing to this growth include renewable energy, waste management, and sustainable agriculture. The Green Technology Master Plan 2017-2030, led by Greentech Malaysia, outlines a comprehensive roadmap for integrating green technology across various sectors. This plan has been instrumental in guiding the country's efforts towards a greener economy.

The Malaysian government has been proactive in fostering green entrepreneurship through various policies and initiatives. The Green Technology Financing Scheme (GTFS) provides financial support to green projects, focusing on renewable energy, energy efficiency, and waste management. Additionally, the Net Energy Metering (NEM) program encourages the adoption of solar energy by allowing consumers to sell excess electricity back to the grid.





Malaysia's commitment to reducing carbon emissions is evident in its nationally defined contribution (NDC) to reduce carbon intensity against GDP by 45% by 2030, compared to 2005 levels. This ambitious target is supported by various initiatives, including carbon capture and storage (CCS) projects and nature-based solutions.

The private sector is also stepping up, recognizing the importance of Environmental, Social, and Governance (ESG) practices. The Malaysia Businesses Sustainability Pulse Report 2022 reveals a growing trend among businesses to view ESG not just as a risk mitigation measure but as a gateway to the thriving green economy. This shift is crucial as businesses seek to align with global sustainability goals and tap into new economic opportunities. Companies like Axiata Group Berhad are leading the way by integrating sustainability into their core business strategies.

On the other hand, entrepreneurship in Malaysia is also thriving, with a Total Early-Stage Entrepreneurial Activity (TEA) rate of 15.4% in 2021, surpassing the Southeast Asian average. The Established Business Ownership Rate (EBOR)also rose to 10.7%, indicating a robust entrepreneurial ecosystem that increasingly incorporates green and sustainable practices (Entrepreneurship Data, 2024).

Significant investments in green technology underscore Malaysia's commitment to sustainability. The government has accelerated a planned USD 3.2 billion investment to upgrade LED street lighting, install rooftop solar panels, and enhance transmission lines. Additionally, the opening of 1.4 gigawatts worth of tender contracts for solar power is expected to attract USD 1 billion in private investment and create 25,000 jobs (MIDA, 2023).

Malaysia's carbon capture services could create a considerable opportunity to tackle both domestic industry emissions, as well as those from neighbouring countries that lack proven storage potential and infrastructure. This could potentially lead to a sizeable revenue pool, create jobs, and help to decarbonize the oil and gas industry while rejuvenating the infrastructure and engineering sectors.

Malaysia is ideally placed to be one of the regional hubs for CCS for a variety of reasons. First, several major gas-producing fields are approaching the end of their lifespan, making them ideal for carbon storage (especially when existing infrastructure such as injection wells and platforms can be repurposed), giving Malaysia a unique cost advantage. According to Malaysia Petroleum Management, more than an estimated 46 trillion cubic feet (2.4 gigatons) of potential carbon storage capacity has been identified across 16 of Malaysia's depleted fields (Mazlan, 2023). Second, Malaysia's oil and gas enterprises already possess the technical and knowledge capabilities required to support CCS establishment and expansion (McKinsey & Company, 2022). And third, the 2023 Malaysia budget incorporated CCS tax incentives (including a 100 percent investment tax allowance for ten years), import duty and sales tax exemption from 2023 to 2027 for CCS technology equipment, and tax deductions on precommencement expenses up to five years prior to the commencement of the operation

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(Agarwal, Dua, Furnari, Mehta, and Sinha, 2024; Ministry of Finance, Government of Malaysia, 2022).

Malaysia's higher education sector is actively fostering green entrepreneurship and leadership among its students. With over 1.3 million students enrolled in higher education institutions (HEIs) nationwide, there is a growing emphasis on integrating sustainability into academic Universities are increasingly offering courses and programs focused on green programs. technologies and sustainable business models, preparing students to address environmental challenges through innovative solutions. These efforts are crucial in developing a new generation of leaders equipped to drive Malaysia's transition towards a greener economy. Malaysia's higher education sector is at the forefront of fostering green entrepreneurship and leadership, driven by an increasing emphasis on sustainability in education, research, and innovation. In supporting green transition, the government has also allocated significant funding. In 2023, RM 120 million was dedicated to university research focusing on renewable energy, waste management, and circular economy solutions. This funding is crucial for driving innovation and ensuring that Malaysia remains competitive in the global shift towards a lowcarbon economy. Universities are not only educating students but also engaging in research and development (R&D) that accelerates the adoption of sustainable practices in industries such as agriculture, manufacturing, and urban development.

Recent studies also indicate that approximately 40% of Malaysian university students are keen on entrepreneurship, with many aspiring to launch their own businesses within five years of graduation (Ministry of Higher Education Malaysia, 2023). In addition, university startups are on the rise, bolstered by initiatives such as the Ministry of Higher Education's (MOHE) Entrepreneurship Development Policy. This policy outlines strategic thrusts to instill entrepreneurial thinking and values in students, aiming to produce graduates who can contribute to sustainable economic growth. Additionally, various university-led incubators and national programs provide essential resources and mentorship to budding entrepreneurs.

Despite the progress, several challenges remain. The availability of ESG data, particularly from the private sector, is limited. Another significant hurdle is the limited access to financial resources for green initiatives, which can be costly to start and maintain. There is positively a growing awareness and knowledge about sustainable practices in some pocket population. However, small and medium-sized enterprises (SMEs) are still not fully enlightened, making it difficult to adopt green innovation. SMEs still view that green technologies and its full infrastructure are costly. Businesses aiming to transition to sustainable practices also indicates fragmented and lack of alignment between regulatory and policy frameworks (Mishaal and Haw, 2023; Earn, 2024). Despite these challenges, there is a growing recognition of the importance of sustainability, and efforts are being made to overcome these obstacles. The opportunities are vast. Malaysia's rich natural resources and strategic location position it well to become a regional hub for green technology and sustainable practices. By leveraging these strengths, Malaysia can lead ASEAN in green entrepreneurship and contribute significantly to regional sustainability goals.

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#### INDONESIA

Indonesia stands at a critical juncture in its pursuit of sustainable development, driven by its commitment to achieving net-zero emissions by 2060. As Southeast Asia's largest economy, Indonesia's journey towards fostering green entrepreneurship and leadership is both promising and challenging. Green entrepreneurship in Indonesia is gaining traction, propelled by supportive governmental policies and innovative private sector initiatives. However, the widespread adoption of eco-friendly business practices faces hurdles such as limited awareness, educational resources, and industry-specific expertise (Balasubramanian & Khoon, 2022).

The economic potential of Indonesia's green economy is substantial. Its renewable energy sector alone could attract investments worth USD 20 billion by 2030. The country boasts the world's largest nickel reserves and accounts for 25% of global geothermal potential, positioning it as a key player in the green economy. Entrepreneurial activity in Indonesia is on the rise. The Total Early-Stage Entrepreneurial Activity (TEA) rate is 14.5% in 2022 (GEM, 2022). There is a growing interest in sustainable business models, although only a small fraction of these ventures are explicitly focused on green entrepreneurship. Such a lukewarm uptake among SMEs is largely due to insufficient environmental awareness, lack of access to green financing, and inadequate support for small and medium enterprises (SMEs) in adopting sustainable practices.

The higher education sector in Indonesia is making significant progress in promoting green entrepreneurship and leadership. With over 4,500 higher education institutions (HEIs) and approximately 8 million students enrolled, the emphasis on sustainable development is becoming increasingly prominent. Recent data shows that around 38.9% of Indonesian students aim to become entrepreneurs immediately after graduation, with 60.2% planning to do so within five years (Liu et.al, 2022; Prabowo et.al, 2022). This entrepreneurial spirit is reflected in the rise of university startups, driven by initiatives like the Ministry of Education's "Kampus Merdeka" program, which encourages innovation and entrepreneurship among students (Ministry of Education and Culture, Republic of Indonesia. (2023). To support these efforts, the Indonesian government has implemented policies that integrate sustainability into the curriculum and provide funding for green startups. Programs such as the "1000 Startups Movement" aim to create a robust startup ecosystem, fostering an environment where students can develop the skills needed to address environmental challenges and drive sustainable economic growth. These initiatives are crucial in equipping the next generation of leaders with the tools to promote green entrepreneurship and leadership across the country.

Indonesia's leadership in green initiatives is characterized by ambitious targets and strategic collaborations. The government has set clear decarbonization goals, including 100% electric vehicle adoption by 2050 and ensuring that 70% of the power generation mix is renewable energy. These policies are bolstered by initiatives such as the McKinsey Platform for Climate Technologies (MPCT) Indonesia, which aims to develop and scale sustainable technologies (McKinsey & Company, 2022).

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The private sector is also playing a crucial role in green entrepreneurship, with efforts to create green business unicorns and establish networks of business leaders committed to sustainability. Community-based approaches are also seen essential in fostering green entrepreneurship. Indonesia has shown a strong commitment to green entrepreneurship among local communities, despite challenges such as resource scarcity and limited support (Papageorgiou, Tsappi, Konis, Adiguna and Indarti, 2023).

Key data and statistics underscore the potential and progress of Indonesia's green economy. Investment in renewable energy is projected to reach USD 20 billion by 2030. Indonesia holds the world's largest nickel reserves and 25% of global geothermal potential. The TEA rate was 14.5% in 2022, reflecting a growing entrepreneurial spirit. The government aims for 100% electric vehicle adoption by 2050 and a renewable energy mix of 70% by the same year (Climate Work Foundation, 2022; ASEAN Briefing, 2023; World Bank 2022; McKinsey & Company, 2022; Earth Journalism Network, 2024).

Against such backgrounds of Indonesia's journey towards green entrepreneurship and leadership, significant potentials seem balanced with the formidable challenges. By addressing barriers such as environmental awareness and access to green financing, and by leveraging community involvement and private sector engagement, Indonesia can pave the way for a sustainable and inclusive green economy. Continued efforts and strategic collaborations will be essential in realizing the nation's ambitious sustainability goals and setting a benchmark for ASEAN green entrepreneurship and leadership

#### VIETNAM

Vietnam is rapidly emerging as a leader in green entrepreneurship and sustainable development. The country's commitment to achieving net-zero carbon emissions by 2050 has catalyzed significant advancements in green business practices and leadership. Green economic activities in Vietnam generated approximately \$6.7 billion USD in 2020, accounting for 2% of the total GDP. The sector has shown robust growth, with an annual increase of 10-13% between 2018 and 2020. This growth is driven by investments in renewable energy, sustainable agriculture, and eco-friendly manufacturing processes (Open Development Vietnam, 2024).

The focus toward green transition has path ways for Vietnam to attain substantial progress in expanding its renewable energy capacity. The country aims to increase the share of renewable energy in its total energy mix to 30% by 2030. As of 2023, Vietnam's installed solar power capacity reached 16.5 GW, making it one of the largest solar markets in Southeast Asia. Additionally, wind power capacity is expected to grow to 11.8 GW by 2025 (OECD, 2023).

The Vietnamese government has implemented several policies to support green entrepreneurship. These include tax incentives, subsidies for renewable energy projects, and grants for research and development in green technologies. The government also launched the National Green Growth Strategy in 2012, which aims to reduce greenhouse gas emissions and promote sustainable economic development. In tandem with this national strategy,

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Vietnamese entrepreneurs are increasingly focusing on green innovation. Startups in the country are developing solutions in areas such as waste management, water purification, and sustainable agriculture. To illustrate, Biomass Energy Solutions is a startup that converts agricultural waste into bioenergy, reducing reliance on fossil fuels. Another notable company, GreenID, focuses on promoting sustainable energy solutions and environmental protection.

Furthermore, Vietnam's higher education system plays a pivotal role in fostering green entrepreneurship and leadership. Universities and colleges are increasingly integrating sustainability into their curricula, research, and community engagement efforts, thereby nurturing a new generation of environmentally conscious entrepreneurs and leaders. One significant initiative is the Innovative Partnership Program (IPP), launched in collaboration with the Finnish government. Through IPP, universities develop specific programs to spur establishment of entrepreneurship hubs developed by scholars and students with a focus on sustainable development and innovation. Hence, universities gain exposure from Finland in developing entrepreneurial innovation ecosystems that support students to enhance their resources and networks toward commercializing green technologies and sustainable business practices. The program has further spur the development of entrepreneurship education among Vietnamese universities. Courses, modules and workshops as well as outreach community programs are designed to enhance students' understanding of green business practices are becoming more prevalent with modules on renewable energy, green business and environmental knowledge geared towards developing mindsets for sustainability and innovation (Le, Nguyen & Nguyen, 2023).

Despite the progress, Vietnam faces several challenges in its green transition. These include limited access to financing for green projects, a need for more skilled labour in green technologies, and regulatory hurdles. However, the growing awareness of environmental issues and the increasing demand for sustainable products present significant opportunities for green entrepreneurs.

#### CAMBODIA

In recent years, Cambodia has been actively shifting its economy towards sustainability as demonstrated by its National Green Growth Roadmap. In 2012, the country established the National Council for Green Growth, which was later upgraded to the National Council for Sustainable Development in 2015. This Council includes members from all government ministries and relevant inter-ministerial councils/committees, playing a crucial role in policymaking. Additionally, all governors of the capital and provincial administrations are members, which is vital for supporting and implementing initiatives at the subnational level. Within the Secretariat, the Department of Green Economy is pivotal in promoting green economic development by overseeing national policies and strategic plans, managing projects, and mobilizing resources. Through the Department's coordination, Cambodia became a member of the United Nations Partnership for Action on Green Economy at an opportune time, with the new government's Pentagonal Strategy providing strong support and clear

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political commitment. The Council's role in governing this transition is significant for both policymaking and implementation, fostering inclusive green economic development in Cambodia (Chan, 2024).

Hence, in totality, green entrepreneurship in Cambodia is gaining momentum, driven by the need to address environmental challenges and capitalize on new economic opportunities. The Cambodian government has set ambitious goals, such as becoming an upper-middle-income country by 2030 and achieving carbon neutrality by 2050. Perspectives toward green entrepreneurship could be viewed from three angles. Firstly, Cambodia has abundant solar energy resources, making it well-positioned to increase investment in renewable energy. The Asian Development Bank (ADB) emphasizes the importance of scaling up green investment in renewable energy and energy efficiency. Currently, renewable energy accounts for a growing share of Cambodia's energy mix, with significant potential for further expansion. Secondly, agriculture is a vital sector for Cambodia. It contributes significantly to food security and economic growth. The ADB report highlights the need for climate-smart agriculture practices to enhance resilience and productivity. Investments in sustainable farming techniques and natural capital management are crucial for long-term sustainability. Thirdly, green transition and growth requires Cambodia to commit to substantial investment. The ADB estimates that \$1.4 billion of private investment per year is needed to meet the 2050 carbon neutrality target. This investment is essential for developing climate-resilient infrastructure, renewable energy projects, and sustainable agriculture (Cambodia Investment Review, 2023).

On the other hand, leadership in green initiatives is essential to drive Cambodia's transition to a sustainable economy. The Cambodian government has demonstrated commitment through various policies and strategies as indicated below:

- National Strategic Plan on Green Growth (2013-2030): This plan outlines Cambodia's vision for green growth, focusing on sustainable development, environmental protection, and social equity. It serves as a roadmap for integrating green practices across sectors.
- Long-Term Strategy for Carbon Neutrality by 2050: Cambodia's long-term strategy aims to reduce greenhouse gas emissions and promote sustainable development. Key areas of focus include renewable energy, energy efficiency, and sustainable land use.
- Public-Private Partnerships: Collaboration between the government, private sector, and international organizations is crucial for advancing green initiatives. Public-private partnerships can mobilize resources, share expertise, and drive innovation in green technologies.

While Cambodia has made significant strides in green entrepreneurship and leadership, several challenges remain. In terms of climate impact, Cambodia is highly vulnerable to climate change, with frequent floods and extreme weather events posing risks to economic stability. Hence, the nation needs to enhance its climate resilience through infrastructure development and adaptive practices. There is also a challenge when discussing issues on Cambodia's governance and capacity building. Strengthening governance and building







institutional capacity are critical for effective implementation of green policies. Cambodia has to improve on its regulatory frameworks, enhancing transparency, and fostering stakeholder engagement. Finally, access to markets and financing remains a challenge for green entrepreneurs. It is timely for Cambodia to seriously consider developing financial instruments, such as green bonds, and creating supportive market conditions that focus on facilitating investment in green projects.

#### LAO PEOPLE DEMOCRATIC REPUBLIC (LAO PDR)

The Lao PDR began actively promoting green entrepreneurship and leadership in the early 2010s as part of its broader national strategy to foster sustainable development. The government, in collaboration with international organizations like the United Nations Development Programme (UNDP) and the World Bank, introduced policies and programs aimed at encouraging eco-friendly business practices, especially in sectors like agriculture, renewable energy, and ecotourism. Notably, the launch of the Lao Green Growth Strategy in 2019 further solidified the country's commitment to fostering green enterprises, focusing on balancing economic growth with environmental sustainability while building capacity for leadership in these areas.

In addition, the country has seen a surge in initiatives aimed at promoting green entrepreneurship. One notable event was the Green Entrepreneurship Forum for Young Entrepreneurs held in Vientiane Capital in 2022. Organized by the Global Green Growth Institute (GGGI) in collaboration with the Young Entrepreneur Association of Lao PDR (YEAL), the forum aimed to promote green innovation and climate technologies. It was attended by over 60 participants, including 37 women, from various organizations. The forum focused on building business management skills for young entrepreneurs and start-ups, enhancing their competitiveness in the market. It also provided a platform for networking with national and international experts, facilitating knowledge transfer and potential investment mobilization in green technology. A year before, the Lao National Chamber of Commerce and Industry (LNCCI) signed a Memorandum of Understanding (MoU) with GGGI to bolster green and climate technology entrepreneurship and innovation. Additionally, the Ministry of Planning and Investment, supported by GGGI and the World Bank, hosted the Lao PDR National Green Growth Forum to discuss progress on the National Green Growth Strategy and identify future priorities. The collaboration between GGGI and YEAL is also a testament to the commitment of Lao leaders to foster a green entrepreneurial ecosystem. Lao's leaders emphasize the importance of green entrepreneurs in achieving national greenhouse gas emission reduction targets and supporting sustainable development. Furthermore, the MoU between LNCCI and GGGI aims to create a larger program to support green and climate technology transfer, incubation, and acceleration in Lao PDR. This initiative underscores the leadership's dedication to creating an enabling environment for green innovation (Global Green Growth Institute, 2022; World Bank, 2022).

Higher education institutions in Lao PDR play a crucial role in advancing green entrepreneurship and leadership by integrating sustainability into their academic, research,

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and community programs. Universities like the National University of Laos (NUOL) have taken the lead by offering courses and degree programs in environmental science, sustainable development, and green technologies. These institutions are not only teaching theoretical knowledge but are also fostering practical skills through partnerships with international organizations and the private sector, giving students hands-on experience in green entrepreneurship. These collaborations create valuable opportunities for students to apply what they learn in real-world settings, thereby preparing them to address environmental challenges and promote sustainable economic growth.

Despite notable progress, challenges remain. Economic factors like high inflation and market volatility, coupled with slow growth, present obstacles to the widespread adoption of green entrepreneurship. However, the country's focus on capacity-building initiatives and developing strong business management skills among young entrepreneurs is creating a foundation for overcoming these hurdles. By equipping the next generation of leaders with the tools needed to innovate and manage risks, Lao PDR is laying the groundwork for a resilient and sustainable green economy.



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# 3. ASEAN NETWORK FOR GREEN ENTREPRENEURSHIP AND LEADERSHIP (ANGEL)



The ASEAN Network for Green Entrepreneurial Leadership (ANGEL) emerges as a flagship project under the Erasmus Capacity Building in Higher Education (CBHE) initiative, co-funded by the European Union. This innovative project aims to address pressing environmental challenges within the Association of Southeast Asian Nations (ASEAN) region by nurturing a cadre of green entrepreneurs equipped with sustainable business acumen. The project which started in 2021, during the pandemic reached more than 12,000 individuals across ASEAN and other regions through its online presence and physical engagement by the time it ended on July, 2024. Through its comprehensive approach, ANGEL thrives sustainable impact by mainstreaming green entrepreneurship education and fostering a culture of environmental responsibility within ASEAN. By equipping future generations of entrepreneurs with the skills and knowledge to navigate sustainable business landscapes, ANGEL contributes to long-term environmental preservation, economic resilience, and social well-being across the region.

### ANGEL's

#### **Specific Objectives**

- Promoting Sustainable Development: ANGEL aims to cultivate a generation of green entrepreneurs across ASEAN countries. Through targeted educational programs and capacity-building activities, the project aims to embed principles of environmental responsibility and sustainable practice into the entrepreneurial mindset.
- Enhancing Educational Frameworks: Leveraging the Erasmus CBHE framework, ANGEL works to enhance educational and training modules based on modern design, yet applicable for community learning, focused on green entrepreneurship. By



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collaborating with universities, specific marginal community groups and industry partners, ANGEL seeks to integrate innovative green business practices to practically support SDG8, namely Decent Work and Economic Growth while promoting Green Transition across ASEAN.

#### Fostering International Cooperation:

ANGEL serves as a catalyst for international cooperation and knowledge exchange between European and ASEAN educational institutions, fostering partnerships that support the development of sustainable entrepreneurship ecosystems. This collaboration enhances mutual understanding and promotes best practices in sustainable business education and implementation.

- Supporting Policy Alignment:
- ANGEL engages with policymakers and regulatory bodies within ASEAN to advocate for policies that incentivize and support green entrepreneurship. By promoting conducive regulatory frameworks and offering evidence-based policy recommendations, ANGEL aims to create an enabling environment for sustainable business growth.

#### Empowering Youth and Marginal Communities:

Recognizing the role of entrepreneurship as engine for economic growth, ANGEL partners particularly among ASEAN higher education institutions act as agents of change, ANGEL empowers youth (among students) university and marginal through MOOC (Massive communities Online Open Course on Green Business), mentorship programs, green innovation competition and networking opportunities. By nurturing innovative solutions to environmental challenges, ANGEL cultivates a pipeline of green startups poised to close socio-economic gaps and drive sustainable economic development in ASEAN.

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#### **ANGEL'S Structure**

ANGEL operates through a consortium of European and ASEAN universities, led by Universiti Teknologi Malaysia (UTM). The ASEAN partner institutions include Universiti Tun Hussein Onn, Malaysia (UTHM), Universiti Kelantan (UMK), Malaysia Universitas Gadjahmada (UGM), Universiti Islam Indonesia (UII), Can Tho University (CTU), Hanoi University of Mining and Geology (HUMG), Institute Technology of Cambodia (ITC), Royal University of Phnom Penh (RUPP), University of South East Asia (USEA), Champasak University (CU) and Savannakhet University (SU). On the other hand, ANGEL has EU partners consisting European University of Cyprus (EUC), Research, Innovation and Development Lab (ReadLab), Center for Social Innovation (CSI) and Hellenic Open University. ANGEL is supported by industry experts, relevant government ministries and agencies. The project also target specific marginal communities within the world of each ASEAN partner institutions



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#### **ANGEL's Implementation**

The ANGEL (ASEAN Network for Green Entrepreneurship and Leadership) Implementation Project is a three-year initiative (2021-2024) aimed at fostering green entrepreneurship and leadership across ASEAN member countries, including Malaysia, Indonesia, Cambodia, Laos, and Vietnam. The project follows a structured and phased approach, starting with a comprehensive gap analysis in the first year. This analysis focuses on identifying strengths, weaknesses, and opportunities in existing green entrepreneurship and leadership programs across the selected countries. The findings from this analysis serve as the foundation for developing the ANGEL Innovate Model and crafting strategic plans tailored to the specific needs and contexts of institutional partners in each country. During the second year, the project shifts to a development mode. The curriculum for ANGEL's specialized modules, the Virtual Learning Environment and the ANGEL's infrastructure, known as ANGEL Innovate Hub are established. The third and final year focuses on scaling up these efforts by conducting comprehensive training sessions for students, faculty staff, and marginalized communities. In ensuring that the knowledge and skills are widely disseminated, the final year also sees broader outreach activities, including Info Days, International and National Conferences, the development of case studies and policy recommendations. These efforts aim to consolidate the project's impact and provide long-term multiplier-effect for sustaining green entrepreneurship initiatives across the ASEAN region. By the end of the project, the ANGEL initiative is expected to have created a robust ecosystem for green innovation and leadership in Southeast Asia, supporting both academic institutions and local communities.



#### Year 1:

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#### Gap Analysis

This task benchmark best practices of existing Green Entrepreneurship and Leadership across all regions and compare as well as contrast with current situation in partner universities. Data were collected through primary data that are questionnaires and focus group meetings. The questionnaires' analysis revealed the setbacks that hinder entrepreneurship creation in each university and provided a basis for strategy development in the respective universities. Each ASEAN partners held focus group meetings with their top management, government agencies and local industry players aside from academia to uncover the needs of the green entrepreneurship and leadership ecosystem. The Gap Analysis report has provided the basis for the development of the training material and Institutional strategies. In addition to that, the Gap analysis report has also been transformed into two conference articles that have been published in Scopus-Indexed Journal.



1-Think Big for Excellence for identifying global best practices and work standards of entrepreneurship centres.

#### Angel Innovate Unit Model

The consortium has worked together to develop the Angel Innovate Unit Model that can suit each partnering university in the Southeast Asia Region. The proposed model led by the Hellenic Open University has guided the partnering institutions to explore the options of how to bridge the gap to enhance engagement with the stakeholders of the universities to develop green entrepreneurship and leadership. The suitable organizational and functional model for each university and its strategic goals and needs were identified. There are three stakeholder groups (university - faculty members, students, and communities). Each university

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strategically and tactically choose a contextual approach to achieve the goal of enhancing the engagement of these stakeholders in their effort to boost green entrepreneurship and leadership. Their innovative organizational model shall facilitate this transformation. The intervention of the University in its environment may not be a radical one, to impose change but more to facilitate change, when change is acknowledged as a necessity. To do that each partnering university in this project has taken several steps, such as: a) Making decisions and formulating the Key Work Standards for Success, b) Deciding the Role of the University in its environment, c) Formulating the University's Strategy to achieve its goals, and d) Select the model of University Governance to be implemented. Each partnering university has designed a model that corresponds to its needs and goals.



Figure 1: Angel Innovate Unit Model Proposed for Partnering University

#### Angel MOOC Platform

Ther Massive Online Open Courses (MOOC) has been created to facilitate the virtual elearning environment for Green Entrepreneurship for trainees, students, the community all anyone who wishes to follow the ANGEL training. The Courses in the MOOC allow the collaborative interaction between their users through both learning and assessment activities. The MOOC support English, Bahasa Melayu, Bahasa Indonesia, Lao, Vietnamese and Khmer.

#### Training of Trainers (TOT) Workshops

The TOT Workshop was organized in November 2022 at Universiti Teknologi Malaysia Kuala Lumpur. This task aims to create and train the core teams for ANGEL implementation in partner universities: the ANGEL Master Trainers. Participants were the five key academic and administrative staff from each partner university that followed an intensive one-week-long hands-on training. The training aims to introduce participants to the theory and practice of university-led entrepreneurial development. Training objectives are: a) to familiarize participants with entrepreneurial learning principles, ideas, and techniques, b) to explore the practical aspects of the setting up and day-to-day functioning of a university entrepreneurial

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center c) to develop networking techniques for liaising with the intra-university (faculty, administrative and technical staff, and students) and extra-university actors (local, regional and international business environment and state services) d) to find or raise grants and funding resources. By the end of the training, participants were equipped to a) support and present entrepreneurial and innovation-focused ideas, solutions, and recommendations to their local settings, b) bring fresh ideas and services to traditional education, including a specific mentoring scheme, c) address the big innovation challenges and lead the way to a high calibre network of future entrepreneurs and thinkers that connects with the local/regional and international market ecosystem.

#### Strategic Planning Document

Each partnering Southeast Asia university has developed a strategic planning document that details the core important elements throughout the Angel Project, which are: context, analysis, strategy, strategic levers, model of Angel, accompanying measure, institutionalization, infrastructure and equipment, Angel Programs, Action Plan and Resources Available. This strategic plan was based on the Think Big ANGEL excellence objectives and undertook a SMART strategy to guarantee efficiency and impact. SMART stands for Specific, Measurable, Attainable, Relevant, and Time-based objectives and has aligned with the ANGEL project objectives. Strategic plans were drafted with the support of each university's leadership in cooperation with all relevant university stakeholders together with active participation of teaching, administrative, and technical staff and students.

#### Year 2:

#### The Establishment of Angel Innovate Unit Hub

The ANGEL Innovate Units are located at the main University campus of each University. The Unit functions to locate equipment of Angel for the use of trainers, students, and the community. The knowledge transfer program was held here to provide hands-on guidance during the green entrepreneurship training. Not only that, but the unit also becomes a hub for students' startup gathering and brainstorming activities. The mission of the ANGEL Innovate Units is to sustain and advance ANGEL project in the long term through a) the support of entrepreneurial learning, b) partnership-building with intra and extra University actors (ie. University leadership, faculty members, administrative and technical staff – mentors, businesses, state agencies, funding agencies, etc.) and c) the development of expertise in the commercialization of Universities' knowledge and technology. The ANGEL Innovate Units' opening was widely disseminated; University leadership participated in the opening 'ceremony' and all University departments' staff and students were invited as well as key societal and entrepreneurial actors of the region.

#### Angel Guide for Setting Up a Green Business

The ANGEL Guide for setting up a green business has been prepared with the support of all project partners according to the context of each partnering country. The guide is available







online on the website to provide guidance and practical information to faculty members and students to build their enterprise (esp. legal and regulatory conditions, accounting, business planning, commercialization). The template has been prepared which was then differentiated following national specificities, concerning for example legal and regulatory conditions. The resulting Guides were available in English, Bahasa Melayu, Bahasa Indonesia, Lao, Vietnamese, and Khmer. ANGEL also work to creating expertise across partner universities through train the trainers program within each institution. There is transfer of knowledge which was acquired during the first Master Trainer workshop in UTM Kuala Lumpur concerning green entrepreneurship.



#### Training the Trainers for Academic and Administrative Staff

The workshops aimed to transfer the knowledge acquired during the 1<sup>st</sup> Phase of Training the trainers (to the Master Trainers) to the academic and administrative staff of the university. The transfer of training concerning green entrepreneurship building in partnering Universities adapted to the specific University needs and by each University's strategy.

The training objectives were: a) to familiarize academic and administrative staff with entrepreneurship principles, teaching, and support, b) to present the University strategy for ANGEL and to shape participant's involvement, c) to create a sustainable network of individuals that will support the intra-university network, d) to explore possibilities for widening the ANGEL extra-university network (with society and the market). The participants were able to: a) include entrepreneurial principles in their teaching (for academic staff), b) guide aspiring entrepreneurs (faculty members and/or students) on their first steps and explain to them the ANGEL strategy and tools, d) engage in the ANGEL strategy through their participation in one or more of the ANGEL intra-university networks: ANGEL Community, Hub, Innovate, Student and Law Units. Finally, training was to mainstream ANGEL principles and structures in the Partner Universities' administrative procedures.

The training material and methodology were based on 1<sup>st</sup> phase workshops, reviewed, and adjusted, to create a joint training program that will be sustained and exploited after the project's lifespan. The training was delivered based on the native speaking language of the country. The slides have also been translated into their language. Training participants were

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carefully selected among these University departments and services that can bring the most added value to the project implementation (eg. engineering, business management, marketing and law, departments, ICT services, careers guidance, etc.). The training is implemented with a collaborative, peer learning strategy, encouraging active participation, and leaving room for learners to create and share, as they will form the basis for the student training.

#### Angel Community and Angel Hub

The Angel Community Facebook account of each partnering university has been created to link to the Angel Facebook formal account and ANGEL website. The development of this Angel Community Facebook was because Facebook is widely used in partner universities as the main tool of communication between academic staff and students and university and students. Therefore, postings on Angel Community Facebook have reached more audiences, easily and without cost. Followers are encouraged to participate in the ANGEL Community available through the ANGEL site.

ANGEL Hubs which have been established at each partnering university have become centres for technology entrepreneurship development, and joint ventures for the development of early-stage startups in green technologies, energy, natural sciences, ICT, and engineering. They focused on green technologies, energy, and sustainable development, in line with the national developmental priorities. ANGEL Hubs provided the space and resources for creating a stimulating environment for aspiring start-ups. Although they will be developed with the support of the relevant departments, with the support of both their faculty staff, researchers, and PhD students, they are open to all departments, encouraging a multidisciplinary approach. Their operation will be supervised and supported by the ANGEL Innovate Units. The hubs foster a feeling of ownership among students and faculty members. Within the ANGEL Innovate Hubs, partner institutions established a unit, complete with proper organizational structure. This formal organization would spur participation of business/marketing, engineering and computer science students to meet; orienting students to the process of codesign and co-innovate along perspectives of green technologies, energy, and sustainable development applications.

#### **Development of Angel MOOC**

The MOOC has implemented the ANGEL pedagogy, based upon collaborative learning approaches. It has used resources that the Moodle Platform offers for collaborative learning, such as discussion forums, Chats, Wiki, and Workshops. Trainees will have access to a 'practice area' in the ANGEL MOOC where they will be able to share their entrepreneurial ideas and projects. The Angel MOOC has linked to the ANGEL website.

#### Year 3:

ANGEL Training Program 'Developing Entrepreneurial Mindset'







The development of the module of this training program was crafted together with contributions from each partnering country, by including the context of the Southeast Asia countries scenario which aims to develop entrepreneurial mindsets and skills for successful start-ups. The objective of the ANGEL Training Programme, titled 'Developing an entrepreneurial Mindset' is to become a leading entrepreneurship program in the ASEAN region that will be sustained long after the end of the project. This is considered the 3<sup>rd</sup> Phase of the ANGEL training program with participation among the students and community. The module has covered the conception, design, management, and commercialization of new enterprises, focusing on green start-ups. The training material has been transformed into MOOC contents as ANGEL thrusts on equal access of education for all. The physical training on the other hand, has guided aspiring entrepreneurs from idea to opportunity identification, launch, growth, financing, and profitability. Students and the disadvantaged communities have been selected to participate in this training program. The program took several days to complete with intensive, facilitated workshops, followed by several weeks of coaching and mentorship for the best entrepreneurial ideas. Monitoring and evaluation of the ideas were done by the mentor of each group of participants. The students were also guided by the mentors to pitch ideas and prepare a video presentation for the ANGEL competition at the institutional level.



#### **ANGEL Innovation Competition**

The ANGEL Entrepreneurship prize has been awarded to the best, innovative idea that emerges from Green Business ideas. All staff and students having followed the ANGEL Training in Partner Universities have the chance to enter the competition. They submitted their video presentation, and the Q&A session was held virtually with the panel judges from the European Union. Each ASEAN partner university submitted their best winning team to

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represent their institution for Final ANGEL Innovation competition during the ANGEL International Conference.



#### The ANGEL International Conference

This is the pinnacle of the ANGEL project. It was a three-day event that brought together a diverse group of stakeholders, including academics, industry experts, policymakers, and green entrepreneurs from across ASEAN and beyond. The conference has achieved its objectives in developing dialogues in the field of green entrepreneurship and leadership, focusing on sustainable development and addressing environmental challenges in the region. The conference features keynote speakers from prominent international organizations, as well as panel discussions and workshops on topics like green innovation, climate technology, and sustainable business models. It also provides a platform for showcasing the ANGEL Innovate Model and the progress made by the project's partner institutions. Additionally, the event highlights the success stories of student and community-based green enterprises fostered through the ANGEL initiative. One of the key outcomes of the conference is the presentation of case studies of thriving green companies and initiatives in Cambodia, Vietnam, Lao PDR, Indonesia and Malaysia. The conference also provides valuable networking opportunities, facilitating collaborations that will help sustain the project's impact beyond its duration. By connecting experts and practitioners in green entrepreneurship, the ANGEL International Conference plays a crucial role in driving forward the dialogue and action on sustainable economic growth in the ASEAN region.

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## 4. What We Envision : Recommendations

## a. General Policy Recommendations

#### 1. Strengthen Regional Collaboration:

 ASEAN member states should foster stronger partnerships to share best practices, resources, and technologies for green entrepreneurship. Establishing a regional green entrepreneurship network can facilitate knowledge exchange and collaboration, ensuring that successful initiatives in one country can be replicated across the region. This network can also serve as a platform for joint ventures and regional projects, enhancing the collective impact on sustainability.

#### 2. Enhance Regulatory Frameworks:

 Developing and harmonizing policies that support green businesses is crucial. Governments should provide incentives for sustainable practices, such as tax breaks and subsidies, while also imposing penalties for non-compliance. Simplifying regulatory processes can encourage the establishment and growth of green enterprises, making it easier for entrepreneurs to navigate the legal landscape and focus on innovation.

#### 3. Promote Education and Awareness:

 Integrating green entrepreneurship and sustainability into educational curricula at all levels can cultivate a new generation of environmentally conscious leaders. Public awareness campaigns highlighting the benefits of green businesses and sustainable practices can shift consumer behavior and increase demand for eco-friendly products and services. Educational institutions should also offer specialized programs and courses to equip students with the skills needed for green entrepreneurship.

#### 4. Facilitate Access to Finance:

 Creating funding mechanisms, such as green bonds and grants, can provide much-needed financial support to green startups and projects. Encouraging financial institutions to develop green financing products tailored to the needs of green entrepreneurs can also help bridge the funding gap. These measures can stimulate investment in sustainable ventures and drive economic growth while protecting the environment.

#### 5. Support Innovation and Technology:

 Investing in research and development for green technologies and sustainable solutions is essential for driving innovation. Governments and private sectors should support green tech incubators and accelerators to nurture innovative startups. By providing resources and mentorship, these incubators can help entrepreneurs develop and scale their green technologies, contributing to a more sustainable economy.







## b. Country-Specific Policy Recommendations

#### Malaysia

#### 1. Incentivize Green Certifications:

 The Malaysian government should provide tax breaks and subsidies for businesses that obtain green certifications, such as the Green Building Index (GBI). This can encourage more companies to adopt sustainable practices and reduce their environmental footprint. Additionally, expanding the Green Technology Financing Scheme (GTFS) to include more sectors and increase funding limits can further support green initiatives across various industries.

#### 2. Expand Green Financing:

 Enhance the Green Technology Financing Scheme (GTFS) to include more sectors and increase funding limits. This can provide greater financial support for green projects, encouraging more businesses to adopt sustainable practices.

#### 3. Promote Sustainable Agriculture:

• Encourage sustainable agricultural practices through subsidies and training programs for farmers. This can help reduce the environmental impact of agriculture and improve food security.

#### 4. Develop Green Infrastructure:

 Invest in green infrastructure projects, such as renewable energy installations and energy-efficient buildings. This can create jobs, reduce carbon emissions, and promote sustainable development.

#### 5. Support Higher Education Initiatives:

 Continue to support higher education institutions in integrating sustainability into their curricula and research. This can help develop a new generation of leaders equipped to drive Malaysia's transition towards a greener economy.

#### Indonesia

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#### 1. Strengthen Waste Management Policies:

 Implementing stricter regulations on waste management and promoting recycling initiatives can help Indonesia address its waste challenges. Increasing investment in renewable energy projects, particularly in rural areas, can reduce reliance on fossil fuels and promote sustainable development. These measures can also create job opportunities and stimulate economic growth in underserved regions.

#### 2. Support Renewable Energy Projects:

 Increase investment in renewable energy projects, particularly in rural areas, to reduce reliance on fossil fuels. This can help promote sustainable development and create job opportunities in underserved regions.

#### 3. Promote Sustainable Tourism:

 Develop eco-tourism initiatives that highlight Indonesia's natural beauty while promoting conservation efforts. This can attract tourists, generate revenue, and support local communities.

#### 4. Enhance Green Education:

• Integrate sustainability into educational curricula at all levels, from primary schools to universities. This can help raise awareness about environmental issues and encourage students to pursue careers in green industries.

#### 5. Facilitate Access to Green Financing:

 Create funding mechanisms, such as green bonds and grants, to support green startups and projects. Encouraging financial institutions to develop green financing products tailored to the needs of green entrepreneurs can also help bridge the funding gap.

#### Cambodia

#### 1. Develop Eco-Tourism:

 Promoting eco-tourism as a key sector for green entrepreneurship can provide training and support for local communities, helping them capitalize on their natural resources sustainably. Encouraging sustainable agricultural practices through subsidies and training programs for farmers can enhance food security and resilience to climate change, contributing to long-term economic stability.

#### 2. Enhance Agricultural Practices:

 Encourage sustainable agricultural practices through subsidies and training programs for farmers. This can help reduce the environmental impact of agriculture and improve food security.

#### 3. Promote Renewable Energy:

• Invest in renewable energy projects, such as solar and wind power, to reduce reliance on fossil fuels and promote sustainable development.

#### 4. Strengthen Governance and Capacity Building:

 Nalmprove regulatory frameworks, enhance transparency, and foster stakeholder engagement to support the implementation of green policies. Strengthening governance and building institutional capacity are critical for effective implementation of green policies.

#### 5. Facilitate Access to Green Financing:

 Develop financial instruments, such as green bonds, and create supportive market conditions to facilitate investment in green projects. This can help bridge the funding gap and support the growth of green businesses.







#### Vietnam

#### 1. Promote Renewable Energy:

 Increase investment in renewable energy projects, such as solar and wind power, to reduce reliance on fossil fuels and promote sustainable development. This can help Vietnam achieve its goal of increasing the share of renewable energy in its total energy mix to 30% by 2030.

#### 2. Support Green Innovation:

 Encourage startups to develop solutions in areas such as waste management, water purification, and sustainable agriculture. Providing funding and mentorship can help these startups grow and contribute to Vietnam's green economy.

#### 3. Enhance Green Education:

• Integrate sustainability into educational curricula at all levels, from primary schools to universities. This can help raise awareness about environmental issues and encourage students to pursue careers in green industries.

#### 4. Facilitate Access to Green Financing:

• Create funding mechanisms, such as green bonds and grants, to support green startups and projects. Encouraging financial institutions to develop green financing products tailored to the needs of green entrepreneurs can also help bridge the funding gap.

#### 5. Strengthen Public-Private Partnerships:

 Foster collaboration between the government, private sector, and international organizations to advance green initiatives. Public-private partnerships can mobilize resources, share expertise, and drive innovation in green technologies.

#### Lao PDR

#### 1. Promote Sustainable Forestry:

 Implementing policies to support sustainable forestry practices and combat illegal logging is crucial for preserving Lao PDR's rich biodiversity. Launching initiatives to improve energy efficiency in buildings and industries, and providing incentives for retrofitting and adopting energy-saving technologies, can reduce energy consumption and lower greenhouse gas emissions.

#### 2. Enhance Green Education:

 Integrate sustainability into educational curricula at all levels, from primary schools to universities. This can help raise awareness about environmental issues and encourage students to pursue careers in green industries.

#### 3. Support Green Innovation:

Encourage startups to develop solutions in areas such as waste management, water purification, and sustainable agriculture. Providing funding and mentorship can help these startups grow and contribute to Lao PDR's green economy.

#### 4. Facilitate Access to Green Financing:

Create funding mechanisms, such as green bonds and grants, to support green startups and projects. Encouraging financial institutions to develop green financing products tailored to the needs of green entrepreneurs can also help bridge the funding gap.

#### 5. Strengthen Public-Private Partnerships:

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• Foster collaboration between the government, private sector, and international organizations to advance green initiatives. Public-private partnerships can mobilize resources, share expertise, and drive innovation in green technologies.



# c. ANGEL's aspirations in generating a multiplier effect for ASEAN

#### 1. Scale Up Successful Initiatives:

 Identify and scale up successful green transition projects within the ANGEL framework to other ASEAN countries. This can amplify their impact and ensure that best practices are shared and implemented across the region. By leveraging the success stories and proven models, ANGEL can create a ripple effect, encouraging more institutions and communities to adopt sustainable practices.

#### 2. Leverage Public-Private Partnerships:

 Foster public-private partnerships to enhance the impact and reach of ANGEL projects. These partnerships can bring together diverse stakeholders, including government agencies, private companies, and non-profit organizations, to drive sustainable development. Public-private collaborations can provide the necessary resources, expertise, and support to scale green initiatives effectively.

#### 3. Promote Green Education:







 Integrate sustainability into educational curricula at all levels, from primary schools to universities. This can help raise awareness about environmental issues and encourage students to pursue careers in green industries. ANGEL can develop and implement educational programs that focus on green entrepreneurship, sustainable business practices, and environmental stewardship.

#### 4. Facilitate Access to Green Financing:

Create funding mechanisms, such as green bonds and grants, to support green startups and projects within the ANGEL framework. Encouraging financial institutions to develop green financing products tailored to the needs of green entrepreneurs can help bridge the funding gap. This can stimulate investment in sustainable ventures and drive economic growth while protecting the environment.

#### 5. Support Innovation and Technology:

 Invest in research and development for green technologies and sustainable solutions. ANGEL can support green tech incubators and accelerators to nurture innovative startups. By providing resources, mentorship, and networking opportunities, these incubators can help entrepreneurs develop and scale their green technologies, contributing to a more sustainable economy.

#### 6. Enhance Monitoring and Evaluation:

 Establish robust monitoring and evaluation frameworks to assess the impact of ANGEL projects. This can ensure continuous improvement and accountability, helping to achieve long-term sustainability goals. Regular assessments can provide valuable insights into the effectiveness of various initiatives and identify areas for enhancement.

#### 7. Empower Youth and Marginal Communities:

 Recognize the role of entrepreneurship as an engine for economic growth and empower youth and marginal communities through targeted programs. ANGEL can offer mentorship programs, green innovation competitions, and networking opportunities to nurture innovative solutions to environmental challenges. By focusing on these groups, ANGEL can cultivate a pipeline of green startups poised to close socio-economic gaps and drive sustainable economic development in ASEAN.

#### 8. Promote International Cooperation:

 Serve as a catalyst for international cooperation and knowledge exchange between European and ASEAN educational institutions. ANGEL can foster partnerships that support the development of sustainable entrepreneurship ecosystems. This collaboration can enhance mutual understanding and promote best practices in sustainable business education and implementation.

#### 9. Support Policy Alignment:

 Engage with policymakers and regulatory bodies within ASEAN to advocate for policies that incentivize and support green entrepreneurship. By promoting conducive regulatory frameworks and offering evidence-based policy recommendations, ANGEL can create an enabling environment for sustainable business growth.

#### 10. Develop Comprehensive Educational Frameworks:







 Enhance educational and training modules based on modern design, yet applicable for community learning, focused on green entrepreneurship. By collaborating with universities, specific marginal community groups, and industry partners, ANGEL can integrate innovative green business practices to practically support SDG8, namely Decent Work and Economic Growth, while promoting Green Transition across ASEAN.

These recommendations aim to provide a comprehensive framework to support the ANGEL project's goals of fostering green entrepreneurship and leadership across ASEAN. By focusing on collaboration, education, financing, innovation, and policy alignment, ANGEL can significantly contribute to a more sustainable and resilient future for the region.







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