



ASPEN NETWORK
OF DEVELOPMENT
ENTREPRENEURS

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East and Southeast
Asia Chapter

ENTREPRENEURIAL ECOSYSTEM SNAPSHOT

Climate and Environmental
Entrepreneurship in

Southeast Asia



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The Aspen Network of Development Entrepreneurs (ANDE) is a global network of organizations that propel entrepreneurship in developing economies. ANDE members provide critical financial, educational, and business support services to small and growing businesses (SGBs) based on the conviction that SGBs create jobs, stimulate long-term economic growth, and produce environmental and social benefits.

As the leading global voice of the SGB sector, ANDE believes that SGBs are a powerful yet underleveraged tool in addressing social and environmental challenges. Since 2009, we have grown into a trusted network of nearly 300 collaborative members that operate in nearly every developing economy. ANDE grows the body of knowledge, mobilizes resources, and connects the institutions that support the small business entrepreneurs who build inclusive prosperity in the developing world. ANDE is part of the Aspen Institute, a global nonprofit organization committed to realizing a free, just, and equitable society.

ANDE's East and Southeast Asia chapter, based in Bangkok, Thailand, was launched in 2017 with the aim of creating a platform that supports all stakeholders in the local SGB ecosystem through training, knowledge sharing, facilitating introductions, and fostering collaboration.

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About the Australian Department of Foreign Affairs and Trade

The Department of Foreign Affairs and Trade (DFAT) manages the Australian Government's development policy, *Partnerships for Recovery – Australia's COVID-19 Development Response*. Through *Partnerships for Recovery*, DFAT is exploring new ways to work with business and investors using new tools and approaches to unlock finance for climate and development. DFAT programs aim to support and catalyse private investment by addressing various barriers to capital flows as well as working with our partner countries in the Indo-Pacific to identify and address regulatory and other barriers to private investment. DFAT's Private Finance for Climate and Development Section supports, designs and manages a range of programs to channel private investment towards climate action and inclusive and sustainable COVID-19 economic recovery. For more information, please visit www.dfat.gov.au.

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SEI Asia, based in Bangkok, has a diverse team of multinational experts that integrates scientific research with participatory approaches to co-develop and share knowledge, build partnerships, and influence policy for resilient development. It focuses on gender and social equity, climate adaptation, disaster risk reduction, water insecurity and integrated water resources management, transitional agriculture, renewable energy, and urbanization. For more information, please visit www.sei.org.



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About this Report

ANDE's Entrepreneurial Ecosystem Snapshots are designed to collect basic information about the support available for small and growing businesses in a specific city, region, or country. This information acts as a census of the local actors and represents a specific moment in time.

While the results are ultimately static, ANDE's Entrepreneurial Ecosystem Snapshot methodology is practitioner-focused. Research is primarily conducted by local teams who engage practitioners throughout the process.

For those who are interested in the Southeast Asia climate and environmental entrepreneurial ecosystem, here are some ways you might use this snapshot:

- 1/ Understand what gaps exist in the support available to entrepreneurs in the ecosystem (noting that this is not an exhaustive list of actors in the ecosystem).**
- 2/ Create connections with other actors in the ecosystem that have similar goals/missions.**
- 3/ Use it as a tool to have conversations and collaborate with other players in the ecosystem.**

Although we have added context to the data, readers may extract other insights using the data available on the snapshot website. We hope that this will act as both a marker of the ecosystem at this particular time and as a starting point for ecosystem actors, facilitated by a common knowledge base.



Climate and Environmental Entrepreneurship in Southeast Asia

Southeast Asia is one of the fastest growing regions in the world, with a total GDP of over USD 2.7 trillion.¹ However, its progress is threatened by the increasingly adverse impacts of climate change. Over the past decade, Southeast Asia has witnessed rising temperatures and a surge in extreme weather events such as floods, droughts, and tropical cyclones,² and their impacts are likely to breed political and economic instability.³ If urgent action is not taken, climate change is predicted to cost the region up to 6.7% of the combined annual GDP by 2100.⁴

As a powerful force for groundbreaking innovation and wide-ranging benefits, entrepreneurship plays a vital role in developing solutions to both mitigate and adapt to climate change. Micro, small and medium enterprises (MSMEs) are a central component of all ASEAN⁵ economies, accounting for 88–99% of enterprises and contributing up to 97% of national employment.⁶ Thus, the MSME sector is widely regarded as a strategic opportunity for sustainable development.

This report evaluates the current support ecosystem for climate and environmental entrepreneurs in six developing Southeast Asian countries: Cambodia, Indonesia, Myanmar, the Philippines, Thailand, and Vietnam. Indonesia, the Philippines, Thailand, and Vietnam were selected based on their high regional contributions to climate emissions and other negative effects on the environment. In recent years, these countries have collectively accounted for close to 90% of regional greenhouse gas (GHG) emissions.⁷ Cambodia and Myanmar were selected because they are regarded as some of the fastest growing economies in the Asia-Pacific region and two of the most disaster-prone countries in the region.^{8,9}

The following sections offer insights on the set of organizations supporting entrepreneurs that aim to address climate change mitigation, adaptation, and non-climate related environmental protection challenges. The analyses are based on survey data and desk research conducted on organizations that support these entrepreneurs to identify important challenges as well as promising opportunities for driving entrepreneurship to meet the region's climate and environmental needs and help drive a more rapid transition to a low carbon economy.

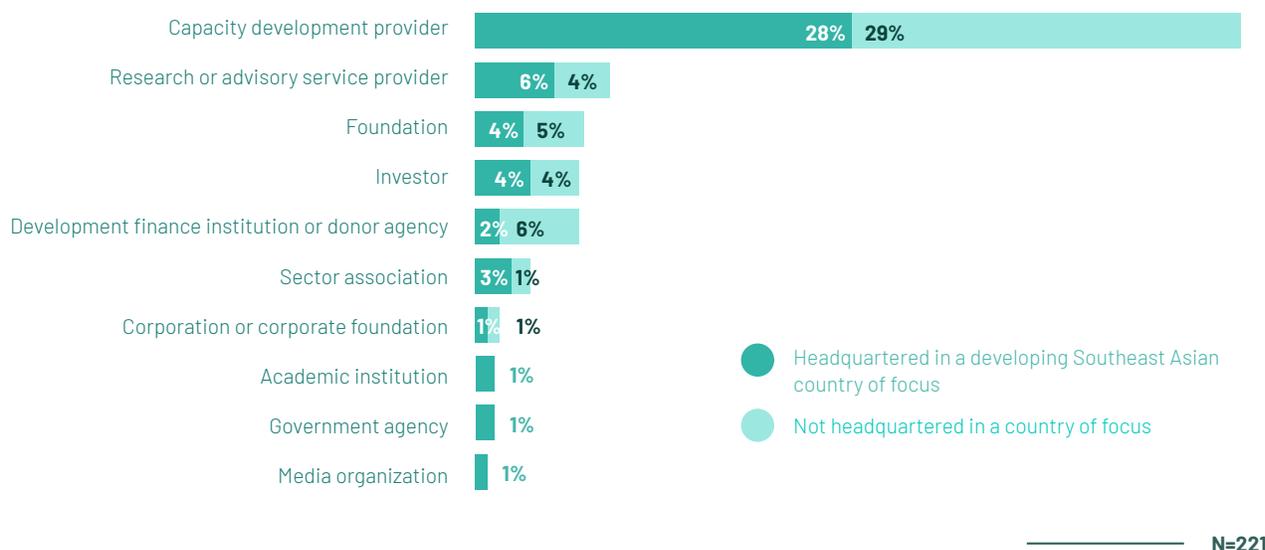
- 1 Organisation for Economic Co-operation and Development, 2019. [Active with Southeast Asia](#).
- 2 Beirne, J., Renzhi, N. and Volz, U., 2021. [Bracing for the Typhoon: Climate Change and Sovereign Risk in Southeast Asia](#). *Asian Development Bank Institute Working Paper*.
- 3 Dennis, D., 2020. [Southeast Asia's Coming Climate Crisis](#). *Center for Strategic and International Studies*. Accessed July 2021.
- 4 Asian Development Bank, 2009. [The Economics of Climate Change in Southeast Asia: A Regional Review](#).
- 5 The Association of Southeast Asian Nations (ASEAN) was established on 8 August 1967 and serves as the region's economic union. The Member States are Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam.
- 6 ASEAN, 2015. [ASEAN Strategic Action Plan for SME Development 2016-2025](#).
- 7 Asian Development Bank, 2016. [Southeast Asia and the Economics of Global Climate Stabilization](#).
- 8 [Cambodia – Climate Change Knowledge Portal](#). *The World Bank*. Accessed July 2021.
- 9 [Myanmar Overview](#). *The World Bank*. Accessed July 2021.

Ecosystem Data

Characterization of Support Organizations

Between March and July 2021, ANDE collected data on 221 organizations currently supporting climate and environmental entrepreneurs in developing Southeast Asia. Capacity development providers represent the largest proportion of the sample (57%). Other support organizations include research or advisory service providers (10%), foundations (9%), investors (8%), and development finance institutions or donor agencies (8%). We were unable to identify any banks or financial institutions that provide targeted support for climate and environmental entrepreneurship (as defined by explicitly stating climate or environmental considerations in their vision, mission statement, or strategy).¹⁰ Roughly half the organizations are locally headquartered in Southeast Asia, and several are supported by or work in partnership with government entities.

Figure 1: Organization type by headquarters location



Approximately 25% of the capacity development providers identify as conservation organizations, examples being Conservation International, World Wildlife Fund, and Rare. Some conservation organizations have moved towards bridging conservation and sustainable development, recognizing that it is not necessary to choose between environmental or economic development but rather that the two elements should be treated as complementary priorities.^{11, 12} By engaging rural and local communities in climate entrepreneurship to help sustain their livelihoods, environmental protection can also become an increasingly attractive and viable choice for them.¹³

¹⁰ Please see Appendix B for further information on the research methodology.

¹¹ Key stakeholder interview. 9 July 2021.

¹² Wells, Z. et al., 2020. [Can Conservation Agreements Catalyze Private Sector Support for Community-led Conservation? Lessons Learned and Recommendations for Replication.](#)

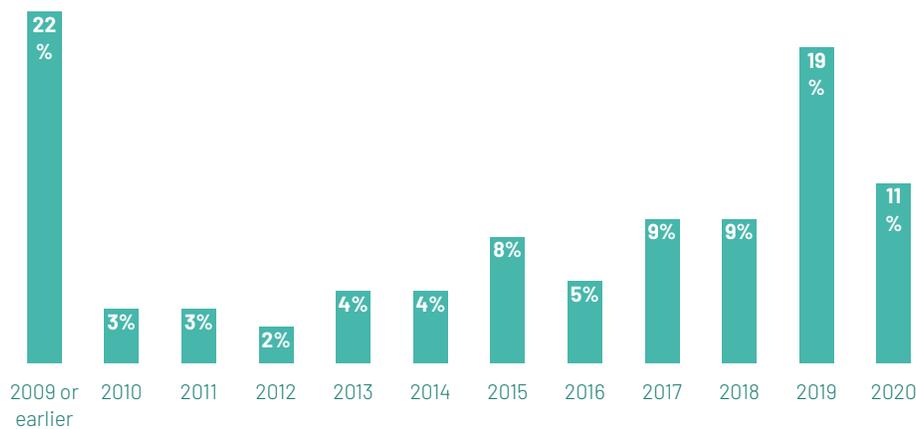
¹³ [Conservation Stewards Program \(CSP\)](#). Conservation International. Accessed July 2021.

Ecosystem Data

Starting Year of Climate and Environmental Entrepreneurship Support

Most organizations in this sample began supporting climate and environmental entrepreneurship recently, with almost 50% starting after 2016. This finding may be linked back to late 2018 when a special report by the Intergovernmental Panel on Climate Change (IPCC) sent a dire message to all global leaders alongside a timeline to act.¹⁴ Following this, the global wave of youth action against climate change hauled the climate emergency into the mainstream in the following year.¹⁵ As an increasing number of climate disasters struck Asia,¹⁶ the 2019 Asia-Pacific Disaster Report also revealed a region at risk.¹⁷ Thus, the accumulation of these events is likely a catalyst for the surge of climate and environmental entrepreneurship initiatives commencing in more recent years.

Figure 2: Year organizations started supporting climate and environmental entrepreneurship in Southeast Asia



N=181

14 Intergovernmental Panel on Climate Change (2018). *Global Warming of 1.5°C*.

15 Marris, E., 2019. *Why Young Climate Activists Have Captured the World's Attention*. *Nature*. Accessed July 2021.

16 *2019 Disasters Mirror Climate Crisis in Asia and the Pacific: Opportunities to Accelerate Adaptive Actions*, 2020. *United Nations Economic and Social Commission for Asia and the Pacific*. Accessed July 2021.

17 United Nations Economic and Social Commission for Asia and the Pacific, 2019. *The Disaster Riskscape Across Asia-Pacific*.

Ecosystem Data

Program Locations

Many organizations supporting climate and environmental entrepreneurs have ongoing initiatives in more than one country within the region. Located in the tropics and surrounded by the Indian and Pacific Oceans, Southeast Asia is highly susceptible to the frequency of climate extremes that will adversely affect the livelihoods of entrepreneurs, especially those dependent on aquaculture and agriculture-based industries.¹⁸ Performance in these sectors is of great concern as several Southeast Asian nations are among the world's top rice exporters¹⁹ as well as the major fish-producing countries globally.²⁰ Thus, similar exposure to climate-fueled calamities across the region may have influenced support organizations to target their mitigation or adaptation efforts beyond just one country.

Figure 3: Number of organizations implementing climate and environmental entrepreneurship support initiatives by country



N = 221

Nearly half of organizations identified in this research have active programming to support climate and environmental entrepreneurs in Indonesia. Aside from Indonesia being the world's fourth-largest country by population size at 273.5 million in 2020²¹ and having high levels of entrepreneurial activity,²² this concentration of support may additionally reflect its integral agriculture sector – employing one-third of the workforce²³ – combined with the country's extreme exposure to climate variability among its 17,508 islands. With 81,000 km of coastline and being among the world's most vulnerable to sea level rise,²⁴ the ever-present threats of climate change require Indonesia's small business entrepreneurs and support organizations to adopt more sustainable business practices. Conversion of its forests and carbon-rich peatlands, alongside a power sector still predominantly dependent on oil, gas, and coal, has also named Indonesia the world's fifth-largest emitter of GHG, prompting an urgent call for action to all stakeholders.²⁵

18 BIRTHAL, P. S. et al., 2019. *Transformation and Sources of Growth in Southeast Asian Agriculture*. International Food Policy Research Institute.

19 *Principal Rice Exporting Countries Worldwide in 2020/2021*. Statista. Accessed July 2021.

20 *Fisheries*. ASEAN. Accessed July 2021.

21 *Population, Total - Indonesia*. The World Bank. Accessed July 2021.

22 *Percentage of Population Involved in Business Start-ups in Asia in 2020, by Country*. Statista. Accessed July 2021.

23 Oxford Business Group, 2020. *How Technology Can Help Small-scale Farmers in Indonesia*, in *The Report: Indonesia 2020*.

24 *Climatelinks*, 2017. *Climate Risk Profile: Indonesia*.

25 *Forests and Landscapes in Indonesia*. World Resources Institute. Accessed July 2021.

Ecosystem Data

Nearly one-third of organizations in this sample support climate and environmental entrepreneurs in Vietnam, likely due to its rapid urbanization and association with climate and environmental degradation. The nation is undergoing one of the fastest urban transitions globally, with 50% of the population expected to live in urban areas by 2030.²⁶ This rapid pace of development does not come without environmental consequences. For instance, energy demand has intensified and raised alarms on clean, reliable, and affordable sources to meet these needs.²⁷ These concerns may have led to increased resources directed towards entrepreneurial solutions to climate and environmental challenges.

In less developed economies such as Cambodia and Myanmar,²⁸ socioeconomic conditions have forced other priorities to take precedence over climate-related actions. For Cambodia, quality and equitable access to health and education has remained a development priority;²⁹ in Myanmar, poverty reduction and infrastructure development have been of prime concern, complicated by recent political upheaval.³⁰ Thus, while climate change remains an important challenge, support organizations in these countries may prioritize achieving improved socioeconomic performance first.

Sectors of Focus

At the regional level, sustainable agriculture and aquaculture (61%) and circular economy and waste reduction (52%) are the top climate and environmental sectors of focus for organizations in this snapshot. Agriculture and aquaculture have formed much of Southeast Asia's employment³¹ and exports³² for the past decades, whereas plastic pollution has garnered attention throughout the region as a pressing concern.³³ Many countries in the region struggle with poor waste disposal and sorting practices, while explosive consumer demand has driven up the consumption of single-use plastics.³⁴ Such challenges highlight a clear opportunity for climate and environmental entrepreneurship to play a crucial role.

26 Asian Development Bank, 2013. [Viet Nam: Environment and Climate Change Assessment](#).

27 *Ibid.*

28 Strange, L., 2012. [ASEAN Small Less Developed Economies: Need for a New Approach](#), in *Moving Toward a New Development Model for East Asia- The Role of Domestic Policy and Regional Cooperation*.

29 [Cambodia Overview](#). The World Bank. Accessed July 2021.

30 Asian Development Bank, 2019. [Myanmar: Progress and Remaining Challenges](#).

31 *The World Bank*. Accessed July 2021.

32 Food and Agriculture Organization of the United Nations, 2020. [The State of World Fisheries and Aquaculture 2020](#).

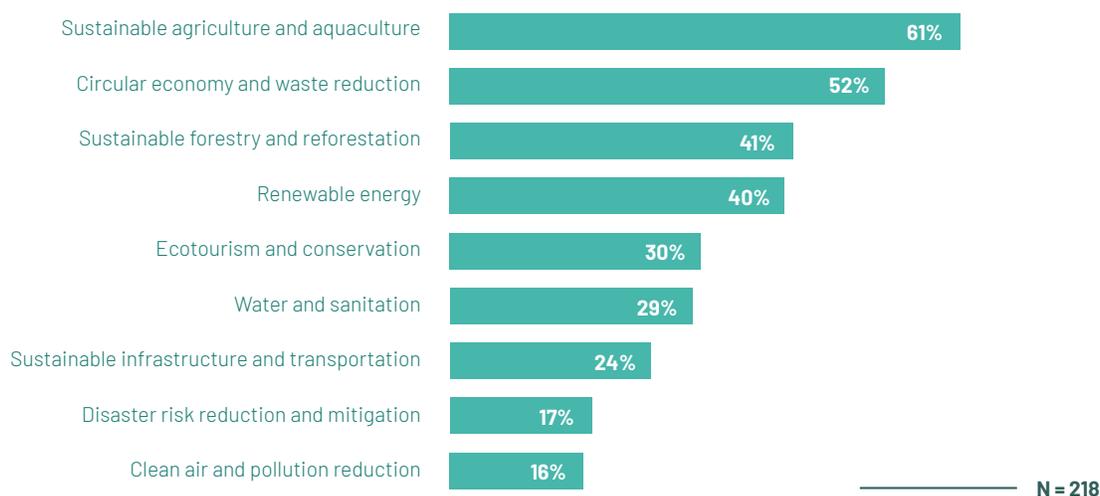
33 ASEAN Cooperation on Environment, 2017. [ASEAN Conference on Reducing Marine Debris in ASEAN Region: Conference Summary](#).

34 Tanakasempipat, P., 2019. [Southeast Asian Countries Need Tougher Plastic Policies to Curb Pollution](#): U.N. Reuters. Accessed July 2021.

Ecosystem Data

Renewable energy is also a common sector of focus (40%). While Southeast Asia is on its way to achieving universal electricity access by 2030, close to 45 million in the region are still living without any electricity and many more do not yet have access to clean cooking fuels.³⁵ Reaching full electrification becomes increasingly challenging as a large proportion of the region’s population resides in remote communities or on small islands that are often difficult to reach. Although, progressively more renewable energy microgrids are becoming a viable alternative to dependence on diesel fuel imports for the local power supply. Renewable energy solutions and enabling technologies have therefore presented new options for more cost-effective and sustainable access, particularly in remote areas.³⁶ Support organizations have used climate entrepreneurship to incorporate various clean energy systems and fuels in such communities – not only increasing access but also creating green jobs, improving public health, and addressing climate change in the process.³⁷

Figure 4: Percent of organizations by target climate and environmental sectors, regional level



At the national level, all six countries have sustainable agriculture and aquaculture (53% to 75%) as the top climate and environmental sector of focus. Nations with lengthier coastlines – Indonesia, the Philippines, Thailand, and Vietnam – also have circular economy and waste reduction (40% to 61%) as a top sector. This is not unexpected, as over half of the ocean’s plastic stems from these four countries and China.³⁸ Support organizations focusing on sustainable forestry and reforestation are prominent in Cambodia, Indonesia, and Myanmar (33–49%), which could be attributed to the deforestation occurring within these countries. As the largest exporter of palm oil globally,³⁹ Indonesia has also contributed to 7% of total global tree cover loss between 2001–2018.⁴⁰ Illegal logging and associated trade in Cambodia⁴¹ and Myanmar⁴² have led to extensive forest loss and may have prompted organizations to support entrepreneurs in this sector to generate more sustainable business models.

35 International Energy Agency, 2019. *Southeast Asia Energy Outlook 2019*.

36 Al-Saffar, A., 2017. *Bringing Electricity to All Corners of Southeast Asia*. International Energy Agency.

37 Apanada, M. J., 2020. *Clean Energy Can Help Southeast Asia Recover After COVID-19*. World Resources Institute.

38 Ocean Conservancy, 2017. *Stemming the Tide: Land-based Strategies for a Plastic-free Ocean*.

39 United States Agency for International Development, 2021. *Commodity-Driven Forest Loss: A Study of Southeast Asia*.

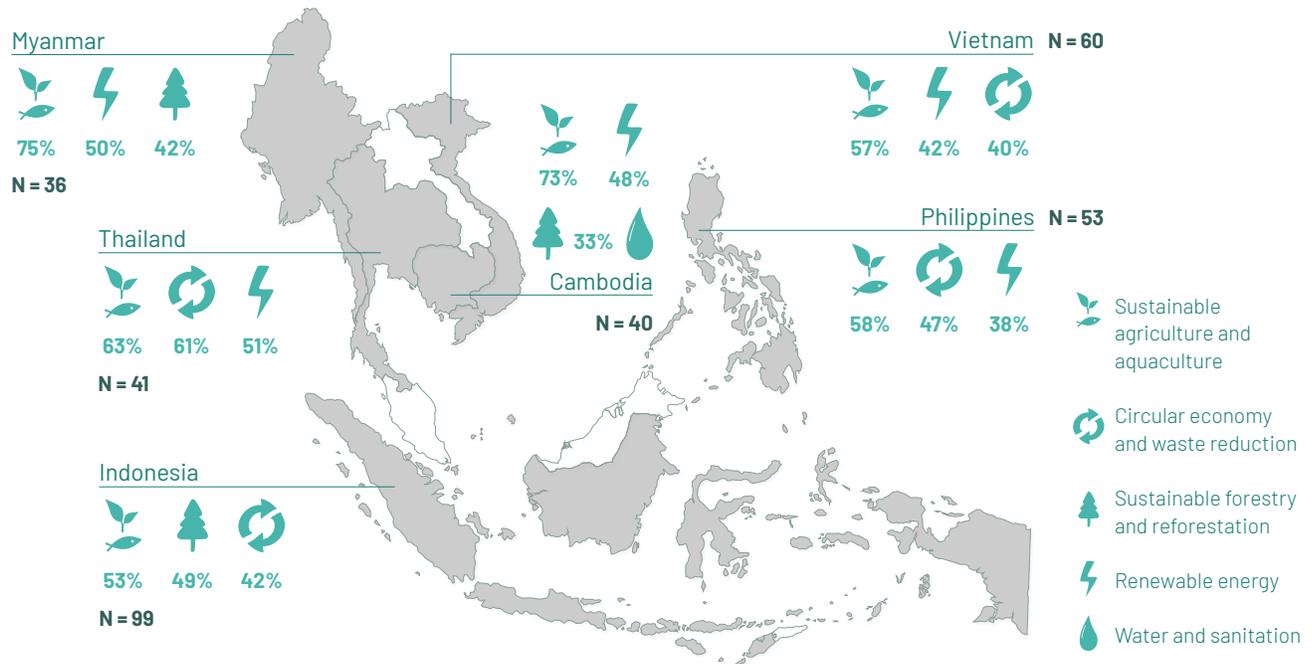
40 Indonesia. *Global Forest Watch*. Accessed July 2021.

41 Cambodia Timber Risk Profile. *Preferred by Nature*. Accessed July 2021.

42 Forest Trends, 2021. *Illegal Logging and Associated Trade in Myanmar: Impacts of Government Measures to Address Illegal Logging*.

Ecosystem Data

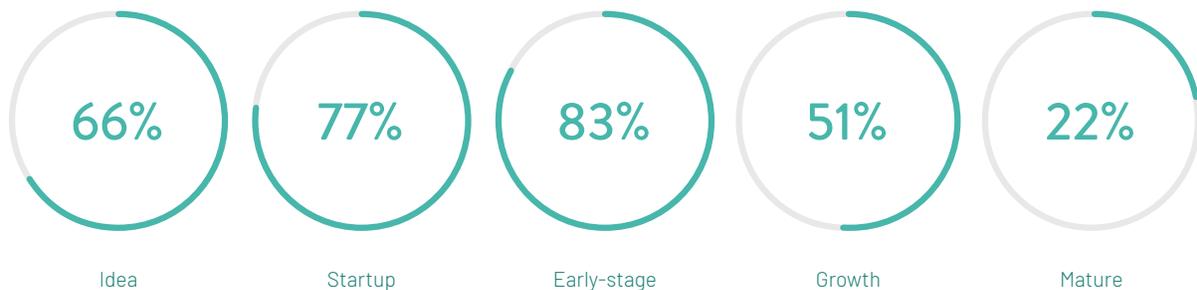
Figure 5: Percent of organizations by the top three target climate and environmental sectors, country level⁴³



Stages of Support

Organizations supporting climate and environmental entrepreneurs in Southeast Asia tend to focus on startup (77%) and early-stage ventures (83%). Over half also support businesses in the idea stage (66%) and growth stage (51%), while only 22% support mature ventures.

Figure 6: Percent of organizations by target stage, regional level



N = 218

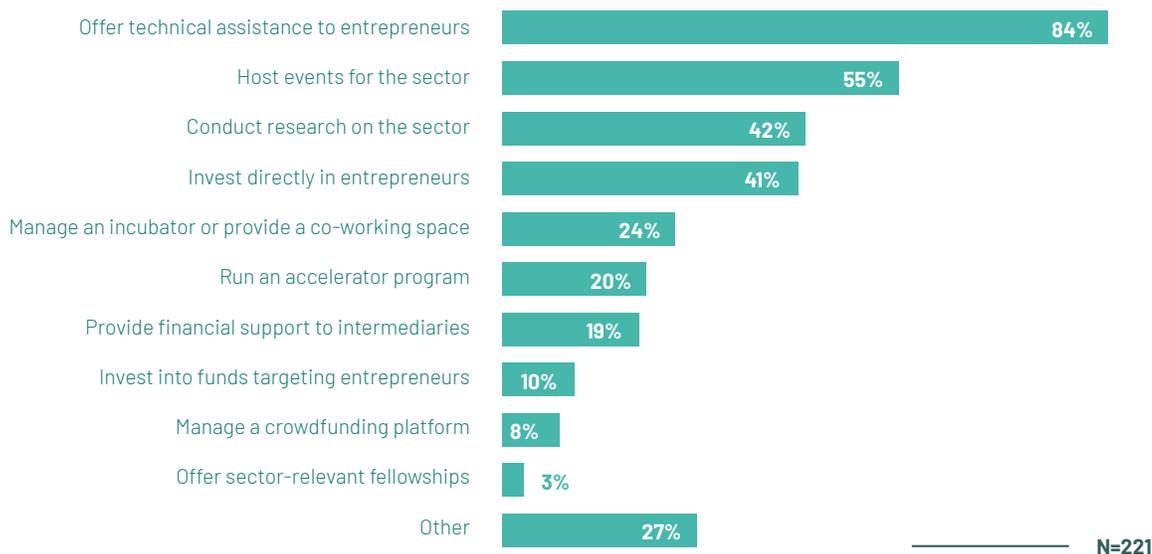
43 Please see Appendix A for the complete dataset.

Ecosystem Data

Services Offered

Most organizations supporting climate and environmental entrepreneurship in Southeast Asia provide technical assistance, capacity building, or other nonfinancial services to entrepreneurs (84%). Over half host events for entrepreneurs and intermediaries (55%), including market exhibitions and field visits, while 42% conduct research on the sector and 41% provide investment directly to entrepreneurs. Notably, nearly a quarter of organizations develop and advise on sector-relevant policies,⁴⁴ highlighting the importance of government engagement and the significance of policy frameworks in facilitating climate entrepreneurship.⁴⁵ Many organizations lead double roles, providing technical assistance and capacity building to both entrepreneurs and policymakers. For instance, the Philippines Safe Water project provides water service entrepreneurs and local government units with the partnerships and information required to create a water-secure future – strengthening the linkage between upstream and downstream stakeholders.⁴⁶

Figure 7: Percent of organizations that offer service, regional level



Pre-pandemic, most organizations delivered their services through a hybrid model that included both in-person and online or remote services (83%; N=151). This preferred method of delivery may reflect the number of organizations implementing regional programs. In order to enable cross-border participation, many competitions now take place via online platforms, including ClimateLaunchpad and Greenpreneurs.

44 This was captured in the "Other" category when respondents were asked to elaborate on their choice.

45 Oraftik, C. et al., 2021. *Climate Entrepreneurship in Developing Economies*. Aspen Network of Development Entrepreneurs.

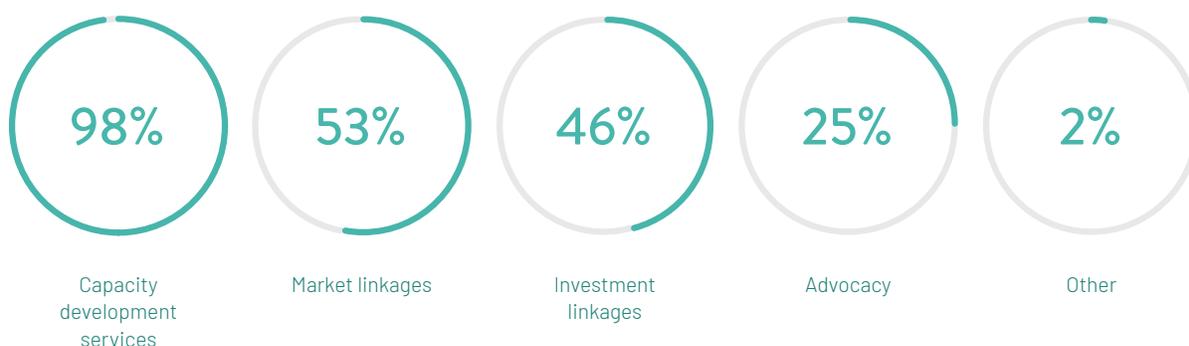
46 *Philippines – Safe Water*. DAI. Accessed July 2021.

Ecosystem Data

Nonfinancial Support Services

Of the 195 organizations that provide nonfinancial services to climate and environmental entrepreneurs in Southeast Asia, 98% offer capacity development services and around half provide market linkages and/or investment linkages (53% and 46%, respectively). In line with the importance of policy in enabling climate entrepreneurship, 25% also provide advocacy services. For example, the fishing sector in the Philippines faces several challenges, including inadequate participation of stakeholders in the decision-making process, alongside the absence of science in policy development. Thus, support organizations have helped fishery entrepreneurs as well as fishery scientists to have their voices heard in the higher levels of the ecosystem.⁴⁷

Figure 8: Percent of organizations by nonfinancial support service type



N = 195

Capacity Development Services

The most common capacity development service provided to climate and environmental entrepreneurs in Southeast Asia is access to networks and partners (85%). While network development is essential for all entrepreneurs, the intricate linkages between climate entrepreneurs and other ecosystem stakeholders make this support particularly important. Aside from connections with funders and policymakers, conversations may involve researchers and academia – not merely for innovation but also for validating the environmental impact.

⁴⁷ Garchitorena, E., 2020. [How to Improve Philippine Fisheries? Science and Stakeholders are Key](#). *Environmental Defense Fund*. Accessed July 2021.

Ecosystem Data

Many organizations also focus on business strategy and planning (74%) and talent development (63%). Aside from leadership skills, organizations emphasize cultivating climate awareness on both the entrepreneur and the consumer sides, which respondents have cited as a challenge for the ecosystem. A negative side effect of the climate trend has been the phenomenon of greenwashing.⁴⁸ Thus, organizations attempt to affect real behavioral change by incorporating culture, livelihoods, and values to ensure true impact.⁴⁹

Figure 9: Percent of organizations by capacity development services offered



N = 193

Market Linkage Services

Among ecosystem support organizations that focus on providing market linkages, most focus on facilitating access to new markets and customers (75%) and meeting product standards (44%). The latter is especially vital for climate and environmental entrepreneurs seeking to integrate their goods or services into sustainable and inclusive value chains, as transparency is a key component of green business practices. The achievement of certifications such as the Sustainable Rice Platform (SRP) Standard or the FAIRTRADE Mark can help entrepreneurs enter new markets through its membership network of ecosystem stakeholders. Pilot field implementation of the SRP Standard also revealed a 10% increase in farmers' incomes and 50% reductions in their GHG emissions through the adoption of climate-smart rice production.⁵⁰ Nevertheless, access to globally recognized certification does not come without challenges, as many climate and environmental entrepreneurs struggle to meet the costs of obtaining them.⁵¹

48 de Freitas Netto, S. et al., 2020. *Concepts and Forms of Greenwashing: A Systematic Review*, *Environmental Sciences Europe*, 32(19).

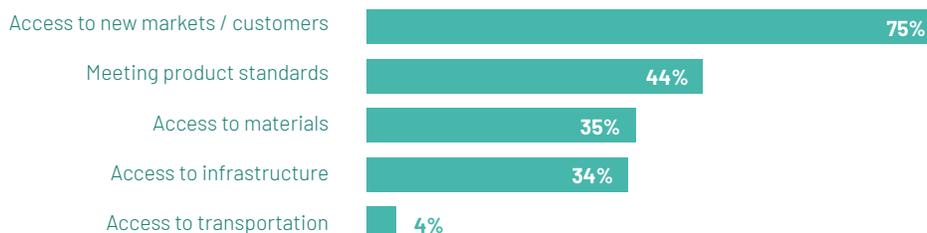
49 Key stakeholder interview. 9 July 2021.

50 *Sustainable Rice Platform*. *One Planet Network*. Accessed July 2021.

51 Pattanapant, A. and Shivakoti, G. P., 2009. *Opportunities and Constraints of Organic Agriculture in Chiang Mai Province, Thailand*, *Asia-Pacific Development Journal*, 16(1).

Ecosystem Data

Figure 10: Percent of organizations by market linkage services offered



N = 102

Investment Linkage Services

The investment linkage services predominantly offered by organizations focus on access to investors (79%), pitch readiness (59%), and access to relevant information and research (54%). Many stakeholders have cited the lack of investors in the region's climate and environmental entrepreneurial ecosystem as a major barrier. Complicated regulatory environments, longer investment return periods, and lack of public understanding all contribute a unique layer to the challenges climate and environmental entrepreneurs face.⁵² Subsequently, access to information is also important as the types of investment needed to finance climate ventures are not typically the 'business as usual' approach. Instead, these ventures often require innovative financing models that include concessionary capital to develop infrastructure or reduce higher risks associated with novel, unproven climate technologies.⁵³

Figure 11: Percent of organizations by investment linkage services offered



N = 91

52 Key stakeholder interview. 24 March 2021.

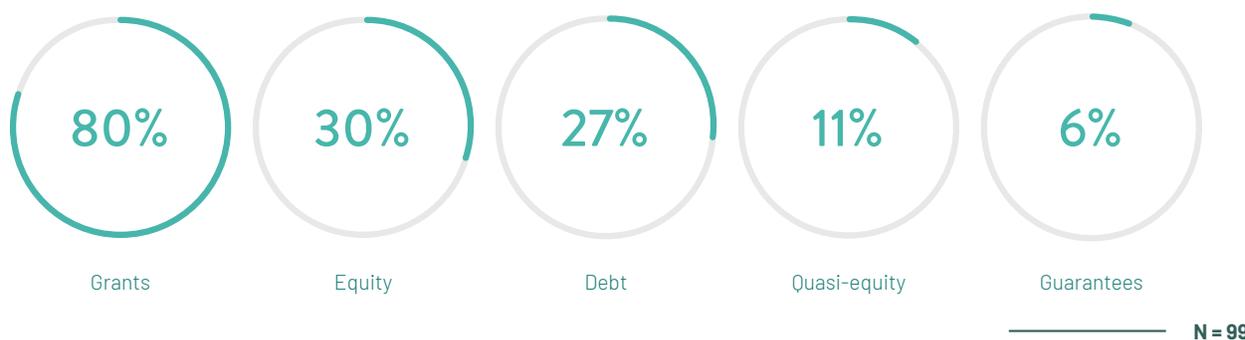
53 Food and Agriculture Organization, 2020. [FAO's Blue Growth Initiative: Blue Finance Guidance Notes – Blended Finance.](#)

Ecosystem Data

Financial Services

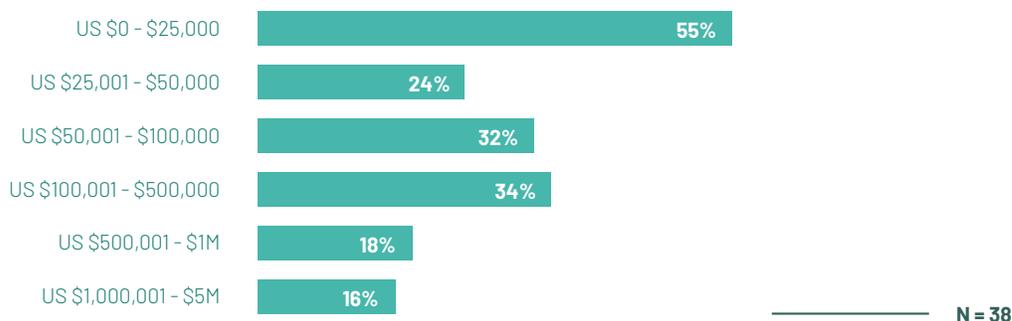
Forty-one percent of organizations in this snapshot provide some form of financing to entrepreneurs, most commonly in the form of grants (80%). This finding reflects climate and environmental entrepreneurs' need for highly risk-tolerant financing, especially at the early stage. However, various sources of finance are required at differing stages of a climate entrepreneur's growth, so the absence of any one type of financing along the pipeline will create a barrier.⁵⁴ Thus, there remains a great need for additional impact investors and other financiers in the Southeast Asian climate and environmental entrepreneurial ecosystem to fill the patient capital gaps, both debt and equity, that exist currently.

Figure 12: Percent of organizations by financing instruments used



Over half of organizations that invest using debt and/or equity offer ticket sizes that average on the low end of the spectrum (less than US \$25,000). The concentration of financing at the lower end may depict how young the climate and environmental entrepreneurial ecosystem in Southeast Asia is. Conversely, the lack of financial support above US \$500,000 also reveals a reluctance from traditional investors to offer larger deals. This may be due to the substantial risks associated with less-proven technology and long tenure times characteristic of climate and environmental initiatives, representing an important gap in the ecosystem. The design and adoption of innovative financing mechanisms to offer higher ticket sizes, with minimized risks, may therefore help to remove this barrier for climate and environmental entrepreneurs.

Figure 13: Percent of organizations by average investment ticket size



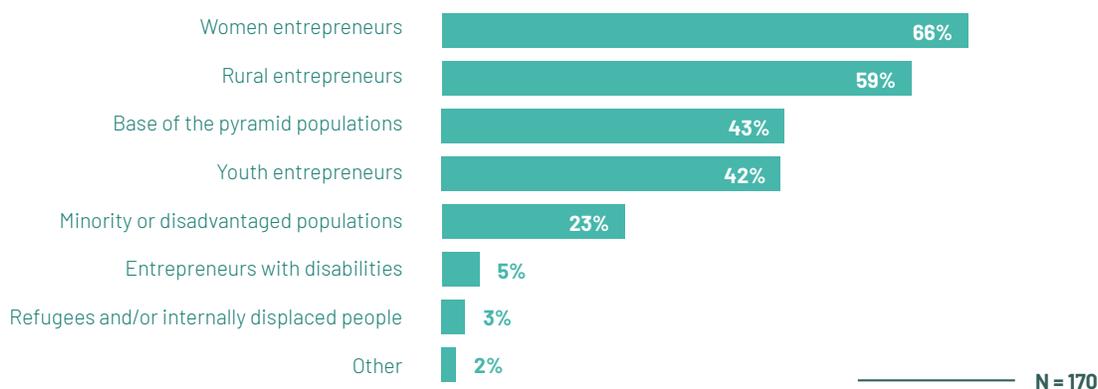
54 Ibid.

Ecosystem Data

Target Population

Organizations supporting climate and environmental entrepreneurs most commonly target women entrepreneurs (66%) and rural entrepreneurs (59%). Notably, 43% target their support to base of the pyramid entrepreneurs. Rapid economic growth in Southeast Asia has resulted in some adverse consequences, including rising disparity and inequality across ASEAN.⁵⁵ Thailand sits amongst the top three of the world's most unequal countries.⁵⁶ The four wealthiest individuals in Indonesia reportedly have more capital than the 100 million poorest combined.⁵⁷ As such, the impacts of climate change will not be felt equally, as those with the lowest capacity to adapt and respond will be most affected.⁵⁸

Figure 14: Percent of organizations that support underrepresented or marginalized populations



Youth entrepreneurs are targeted by 42% of support organizations. Young people make up 16% of the population in Southeast Asia,⁵⁹ and their growing involvement in climate action has led to several youth-focused platforms at regional and national levels. Some examples include YOUTHTOPIA, UNDP Youth Co:Lab, Greeneration Foundation in Indonesia, and CHANGE in Vietnam. Such programs aim to build leadership for youth, raise awareness on climate issues, and engage youth in climate entrepreneurship.

Many organizations also work with smallholders and indigenous or ethnic minority groups to secure land rights and strengthen the local management of natural resources. For example, on the international stage, Forest Trends advocates for full recognition of indigenous peoples' role in protecting forests as our global carbon sinks.⁶⁰ In the Mekong region, the organization engages with such communities by incubating business models and offering sustainable livelihood options through climate entrepreneurship.⁶¹ Such strategies help ensure that these natural landscapes can also rely on having local defenders for the long haul.

55 United Nations Economic and Social Commission for Asia and the Pacific, 2018. [Inequality in Asia and the Pacific in the Era of the 2030 Agenda for Sustainable Development](#).

56 Credit Suisse, 2016. [Global Wealth Report 2016](#).

57 Gibson, L., 2017. [Towards a More Equal Indonesia](#). *Oxfam International*.

58 [Climate Change in Asia and the Pacific: Hitting the Poor Hardest](#), 2012. *Asian Development Bank*. Accessed July 2021.

59 United Nations Economic and Social Commission for Asia and the Pacific, 2019. [Population and Development Indicators for Asia and the Pacific, 2019. Communities and Territorial Governance](#). *Forest Trends*. Accessed July 2021.

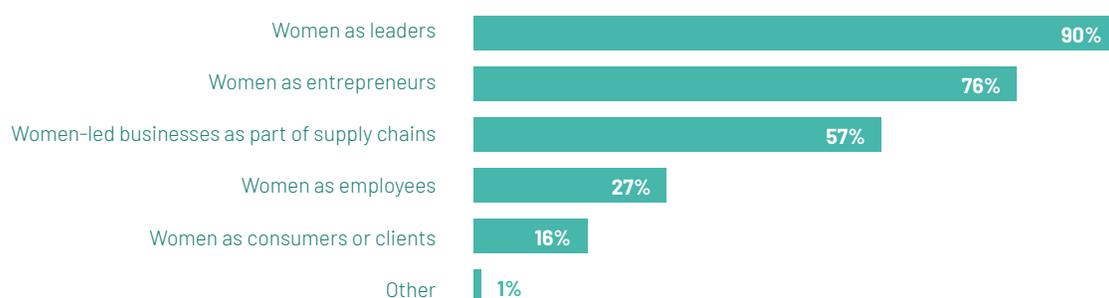
60 *Ibid.*

61 *Ibid.*

Women-focused Support

Many organizations have acknowledged the nexus between gender and climate change. Studies indicate that 80% of climate refugees are women, yet the mean representation of women in national and global climate negotiating bodies falls below 30%.⁶² Women are reportedly more inclined to make decisions about resource use in the interest and welfare of their families and communities. Thus, there is greater responsiveness to the people when women participate and have a say in the governance of environmental and energy processes.⁶³ In this sample, most organizations focus on supporting women as leaders (90%)⁶⁴ before women as entrepreneurs (76%). It is logical to start by empowering women to respond and adapt to climate change in order to help them design climate and environmental solutions that would best meet their needs.

Figure 15: Percent of organizations by target focus for women



N = 107

When asked about barriers specifically affecting women entrepreneurs, stakeholders pointed to traditional gender roles (47%), lack of mentors and representation (45%), and economic inequality (43%). In a broad sense, these hindrances for women climate entrepreneurs mirror restrictions faced by the female workforce as a whole. A study has shown that gender discrimination concerning social norms, practices, and laws in Southeast Asia remains high compared to other regions in the world.⁶⁵ There is also severe underrepresentation of women entrepreneurs in the region's green economy⁶⁶ – exposing a substantial gap, given their disproportionate vulnerability to climate change.

62 Halton, M., 2018. *Climate Change 'Impacts Women More than Men'*. BBC. Accessed July 2021.

63 United Nations Environment Programme, 2020. *Powering Equality: Women's Entrepreneurship Transforming Asia's Energy Sector*.

64 This means women being represented in decision-making roles, such as high-level managers or directors.

65 Organisation for Economic Co-operation and Development, 2021. *SIGI 2021 Regional Report for Southeast Asia*.

66 Asian Development Bank and The Asia Foundation, 2018. *Emerging Lessons on Women's Entrepreneurship in Asia and the Pacific*.

Ecosystem Data

Figure 16: Top challenges faced by women in engaging with the climate and environmental entrepreneurial ecosystem in Southeast Asia



N = 60

About a third of organizations emphasized the lack of tailored support for women climate entrepreneurs as a key challenge (32%). Program designs that consider the social pressures and nuances women face that affect their roles and capacities are helpful in this context. For example, the Women’s Earth Alliance has partnered with Conservation International in Indonesia to accelerate the leadership of indigenous women and scale their climate solutions.⁶⁷ Similarly, SHE Investments has designed incubator programs for conservation NGOs to deliver to women-led MSMEs in climate change-affected coastal villages of Cambodia and Myanmar.⁶⁸ Having tailored support can be essential to a women climate entrepreneur’s growth as it allows the creation of a safe space for women to share their concerns and receive mentorship from other women leaders.

Lack of access to education or skills development also presents a challenge for women climate and environmental entrepreneurs. Some stakeholders have found that women entrepreneurs are very hesitant to ask for business financing and tend to negotiate themselves down compared to men.^{69, 70} Others observed that women climate entrepreneurs often lack the skills for business development, therefore requesting support in setting up networks and establishing business relationships.⁷¹ On the innovation side, the Philippines and Thailand were the only Southeast Asian nations with an equal or above proportion of female researchers in science and technology.⁷² Options for skills development are also particularly restricted for those in remote areas, those experiencing early marriage, and those with disabilities.⁷³ This knowledge barrier imposes a significant drawback for women, given the substantial technical assistance required by climate entrepreneurs (84%; Figure 7).

67 [Mobilizing Indonesia’s Indigenous Conservationists](#). *Women’s Earth Alliance*. Accessed July 2021.

68 Key stakeholder interview. 30 March 2021.

69 Key stakeholder interview. 24 May 2021.

70 Key stakeholder interview. 8 July 2021.

71 *Ibid.*

72 United Nations Educational, Scientific and Cultural Organization and Korean Women’s Development Institute, 2015. [A Complex Formula: Girls and Women in Science, Technology, Engineering and Mathematics in Asia](#).

73 United Nations Development Programme and United Nations Children’s Fund, 2021. [Addressing Gender Barriers to Entrepreneurship Among Girls and Young Women in South-East Asia](#).

Ecosystem Data

Impact Focus and Measurement

Unsurprisingly, SDG 13: Climate Action was cited by most organizations (70%) as representative of their support for climate and environmental support entrepreneurship. Other environmental goals include SDG 12: Responsible Consumption and Production (53%) and SDG 7: Affordable and Clean Energy (44%), reflective of the main sectors of focus among organizations in the region. Key social and economic goals include SDG 8: Decent Work and Economic Growth (47%) and SDG 5: Gender Equality (44%), which makes sense as climate entrepreneurship can stimulate sustainable economic development and drive green jobs while also striving towards inclusive impact.

Figure 17: Percent of organizations that align with the UN Sustainable Development Goals

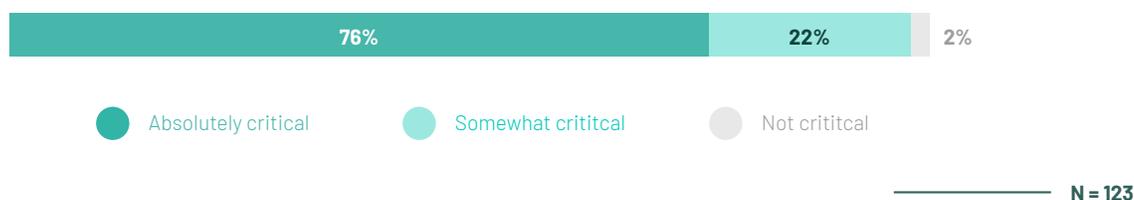


N = 140

Ecosystem Data

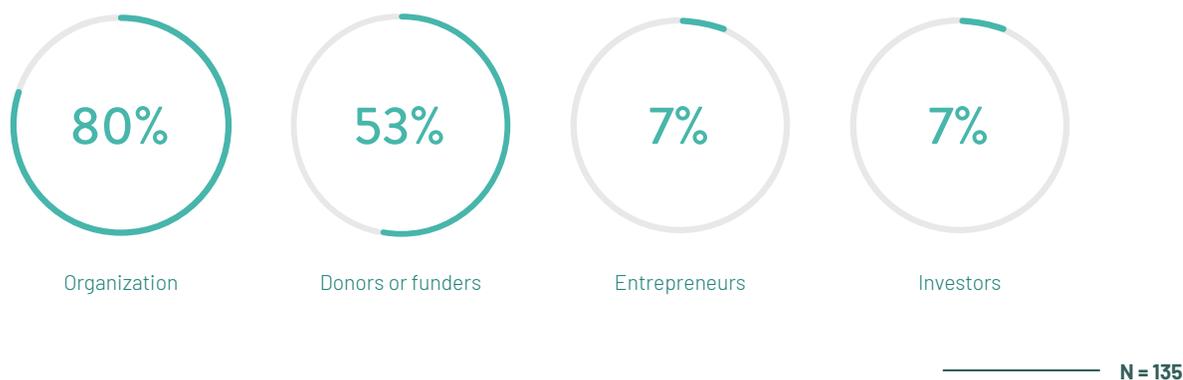
When organizations were asked to state how important they believe impact measurement is to the success of a climate and environmental entrepreneur, over 75% responded with “absolutely critical.” Monitoring and evaluation enable entrepreneurs to measure their progress toward achieving their aims, particularly significant for climate and environmental enterprises that need to communicate their impacts to their supporters as well as consumers who seek climate-friendly products or services. On the other hand, organizations that responded with “somewhat important” or “not critical” noted the lack of capacity or resources by climate and environmental entrepreneurs to conduct proper impact assessments. This may be attributable to the informal economy shaping up to 90% of many Southeast Asian countries,⁷⁴ where entrepreneurs rarely have the privilege of even putting an impact measurement framework in place. Nonetheless, this situation also presents a tricky impasse for climate entrepreneurs seeking to scale as impact assessments can be a part of the value proposition to attract potential funders and impact investors.

Figure 18: Percent of organizations by how critical impact measurement is to the success of a climate and environmental entrepreneur



Most organizations (83%; N=172) measure the impact of their climate and environmental entrepreneurship support activities, and over three-quarters (76%; N=161) track the climate and environmental impact of the work performed by their entrepreneurs or the intermediary organizations they support. The costs of impact measurement are primarily covered by the support organizations themselves (80%) or the programs’ donors or funders (53%).

Figure 19: Percent of organizations by who pays for impact measurement

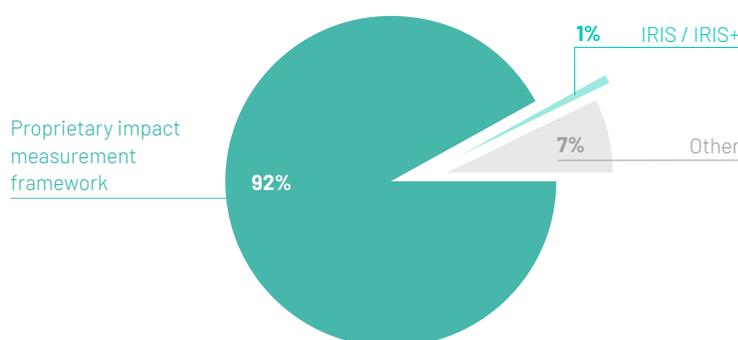


74 *Ibid.*

Ecosystem Data

Nearly all organizations in this snapshot measure their impact using a proprietary impact measurement framework. Such frameworks vary across projects and sectors, ranging from complex tracking of GHG emissions to assessing the physical appearance as an indicator for healthy crops. Due to the broad range of frameworks available, many entrepreneur support organizations have difficulty selecting the most suitable and affordable one to use.⁷⁵ Others did not find existing frameworks sufficient. Several stakeholders mentioned that finding an appropriate measure of climate and environmental awareness and behavioral change was particularly challenging.^{76, 77} Thus, while there is clear justification for organizations developing frameworks tailored to their needs, the lack of homogeneity does present challenges when comparing data across different organizations and programs.

Figure 20: Percent of organizations by impact measurement framework used



N = 138

Challenges Faced by Climate and Environmental Entrepreneurs in Southeast Asia

When asked about the greatest challenges facing climate and environmental entrepreneurs in Southeast Asia, respondents most commonly pointed to the region's unsupportive regulatory environment. Ministries often take on a siloed approach, where entrepreneurship and climate change are each managed by different departments. Aside from difficulties in aligning on internal mandates, this coordination gap also makes it challenging for both climate entrepreneurs and intermediaries to determine whom they can approach for support.⁷⁸

⁷⁵ Some examples of impact measurement frameworks mentioned by respondents and interviewees include: GIIRS, IRIS/IRIS+, GRI, and IFC Performance Standards.

⁷⁶ Key stakeholder interview. 31 May 2021.

⁷⁷ Key stakeholder interview. 2 June 2021.

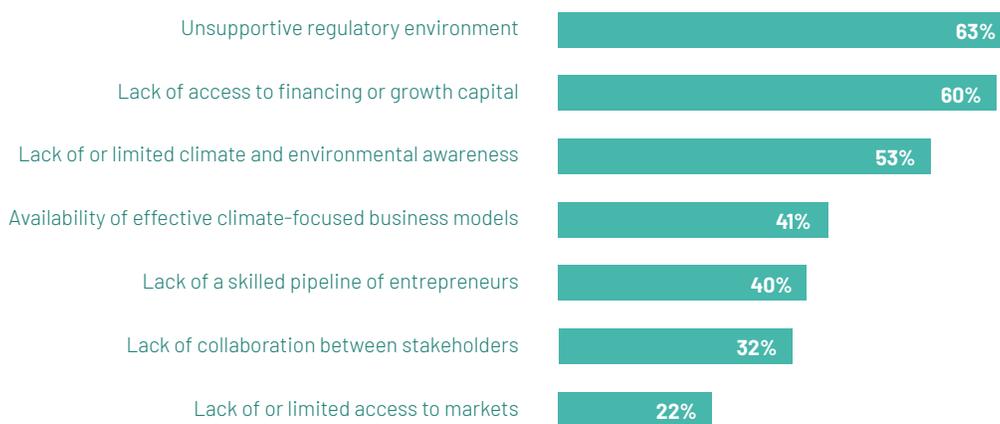
⁷⁸ Key stakeholder interview. 7 June 2021.

Ecosystem Data

In addition, the energy sector in many ASEAN countries is still monopolized by state-owned enterprises,^{79, 80} leaving little ability for newer climate-focused businesses to compete. Having monopoly utilities also dissuades nations from developing innovations, thus keeping both systems and regulations outmoded. Stakeholders have also expressed not having suitable policies for newer climate innovation, such as hybrid renewable energy systems, thereby creating impediments right from the start.⁸¹ In other cases, such as Indonesia, energy prices are highly subsidized by the government. While this helps maintain affordability for low-income groups, such regulatory environments also prevent market competition and growth.⁸²

The lack of physical climate infrastructure has also been linked to restrictive regulatory environments. In many Southeast Asian nations, this includes the entire distribution system. Consequently, the logistics – including distribution, supply chain, and back-end support – for ecologically beneficial services are not that scaled, leading to higher production costs.⁸³ Similarly, price systems within nations are also optimized for a carbon-intensive economy. Plastics, for example, are more affordable compared to recyclable materials as they are produced with heavily subsidized oil.⁸⁴

Figure 21: Top challenges faced by climate and environmental entrepreneurs in Southeast Asia



N = 73

79 Kristiansen, R. and Arboleya, L., 2021. *Southeast Asia can Reach Clean Energy Targets by Investing in Transmission*. International Energy Agency. Accessed July 2021.

80 Herberg, M. E. and Johnson, A., 2020. *Powering Southeast Asia: Meeting the Region's Electricity Needs*. The National Bureau of Asian Research.

81 Key stakeholder interview. 5 July 2021.

82 Laan, T. et al., 2011. *A Citizens' Guide to Energy Subsidies in Indonesia*. International Institute for Sustainable Development.

83 Key stakeholder interview. 9 June 2021.

84 *The Price of Plastic Waste and Solutions to Turn the Tide*. United Nations Economic and Social Commission for Asia and the Pacific. Accessed July 2021.

Ecosystem Data

The second most common challenge noted by stakeholders is access to finance. While climate innovation is crucial for realizing the Paris Agreement and achieving the SDGs, the actual or perceived novelty of many solutions often presents a substantial risk for traditional investors.⁸⁵ Comparably, conventional banks and financial institutions are predominantly designed to accommodate traditional business models and may be hesitant to recognize innovative climate-focused concepts. Support organizations also find it quite challenging to find a good match between investors and impact-driven startups, as investors may have too high expectations on either the profit or the impact side.⁸⁶

The lack of climate and environmental awareness throughout the ecosystem also poses a significant challenge. Education can be a powerful element in equipping societies with awareness and understanding of the impacts of climate change.⁸⁷ Middle to upper-income populations located in urban areas often have the privilege to be aware of the dangers posed by climate change and environmental degradation. Yet, the impacts are more strongly felt by rural and coastal dwellers. This segment of the population takes on climate entrepreneurship as a need rather than a choice. Furthermore, formal awareness-raising campaigns,⁸⁸ such as those in the Philippines, are usually in the form of a public lecture. Predominantly a one-way communication, the effectiveness of these platforms in initiating actual behavioral change remains questionable.

Roughly 40% of stakeholders cited the limited availability of climate-focused business models and successful examples as a major barrier. There is limited documentation and knowledge sharing on such models that have provided positive results for climate entrepreneurs.^{89,90} Some players working in conservation have found it challenging to shift from traditional approaches to incorporate sustainable business engagement.⁹¹ For example, the “Hutan Desa” (Village Forest) social forestry scheme in Indonesia achieved less than 40% of its target area as most villagers faced difficulties in making their enterprises profitable.⁹² On the other hand, while smallholder farmers in rural regions of Southeast Asia are already profoundly aware of how climate change affects their livelihoods,⁹³ many lack access to adaptation solutions and complementary business models that support adjustment in their practices.⁹⁴

Finally, it should be noted that most of the top challenges only slightly vary in proportion. As no challenge appears to be most prominent, it can be said that they are fundamentally interlinked – further demonstrating the complexity of the climate and environmental entrepreneurial ecosystem within the region.

85 *Ibid.*

86 Key stakeholder interview. 8 June 2021.

87 United Nations Educational, Scientific and Cultural Organization, 2017. [Changing Minds, Not the Climate: The Role of Education](#).

88 These may also take place as Information, Education and Communication Campaigns (IEC).

89 Key stakeholder interview. 9 June 2021.

90 *Ibid.*

91 Key stakeholder interview. 24 May 2021.

92 In this program, the Indonesian government provides communities the authority and capital incentives to regulate and manage village forests through the establishment of village enterprises. Source: Moeliono, M. et al., 2015. [Village Forests \(Hutan Desa\): Empowerment, Business or Burden?](#) World Agroforestry Centre.

93 Abidoye, B., Kurukulasuriya, P. and Mendelsohn, R., 2017. [South-East Asian Farmer Perceptions of Climate Change](#), *Climate Change Economics*, 8(3).

94 *Ibid.*

Ecosystem Data

Improvements in the Southeast Asian Climate and Environmental Entrepreneurial Ecosystem

Growing climate and environmental awareness across Southeast Asia was mentioned as the most notable improvement within the entrepreneurial ecosystem over the past three years. Recent traction may be attributed to the COVID-19 pandemic, which has served as a global wake-up call for the need to redefine human development and our co-existence with nature. The UN SDGs have also been mainstreamed at both national and regional levels, where the ASEAN community collectively monitors and shares its progress in achieving the global agenda.⁹⁵ Furthermore, social media is widely popular in the region – with 61% of the population active online⁹⁶ – and has played a vital role in raising climate awareness. In Thailand, the death of an orphaned baby dugong⁹⁷ took over the internet and sparked nationwide conversations on plastic overconsumption.⁹⁸ The Air Quality Yangon campaign, which takes daily air pollution measurements in Myanmar’s cities and presents the data online, also raised awareness on the importance of clean air.⁹⁹ Nonetheless, as climate and environmental awareness was also identified as a top challenge (53%; Figure 21), this suggests that there is plenty more to be done.

Following expanded climate and environmental awareness, the region has also seen increased financing for climate entrepreneurship. One of the world’s largest global climate funds, the Green Climate Fund, recently allocated US \$300 million to support the first Green Recovery Program in Southeast Asia.¹⁰⁰ Another example includes the European Union’s SWITCH-Asia grants program that has transferred EUR 280 million to help MSMEs integrate clean processes and technologies.¹⁰¹ Philanthropic grantmaking is also increasingly aligned with sustainable development,¹⁰² while investors have become more public about sustainability.¹⁰³

Subsequently, growing interest in supporting mitigation and adaptation costs has led to innovative financing models such as blended finance to become more prominent in Asia. The proportion of blended finance transactions in Asia rose from 27% in 2010–2012 to 31% in 2016–2018.¹⁰⁴ These models, such as the Asia Natural Capital Design Funding Window,¹⁰⁵ aim to use catalytic capital from public and philanthropic sources to elevate private sector investment in tackling climate change and close the financing gap. According to the United Nations, this momentum towards blended finance, as well as climate finance,¹⁰⁶ seeks to combine the “determination of the public sector with the entrepreneurship capacities of the private sector.”¹⁰⁷ However, immediate movement is also hindered by a limited evidence base on its effectiveness that can be largely ascribed to the novelty of these mechanisms and their longer investment return periods.¹⁰⁸

95 The ASEAN Secretariat, 2020. *ASEAN Sustainable Development Goals Indicators Baseline Report 2020*.

96 Norcross, D. *Social Media Trends 2019: Part 5 – Southeast Asia’s Digital Boom*. *Lexicon*. Accessed July 2021.

97 A medium-size marine mammal, commonly known as a “sea cow”.

98 *An Orphaned Dugong Becomes a Social Media Influencer in Thailand*, 2019. *United Nations Environment Programme*. Accessed July 2021.

99 Pwint, Z. P., 2020. *Wouldn’t It Be Nice to Breathe Clean Air?* *The Myanmar Times*. Accessed July 2021.

100 *\$300 Million from Green Climate Fund to Support ADB’s First Green Recovery Program in Southeast Asia*, 2021. *Asian Development Bank*. Accessed July 2021.

101 *SWITCH-Asia and the European Green Deal*, 2020. *SWITCH-Asia*. Accessed July 2021.

102 Fedirko, L., Cronin, C., and Kelly, C., 2019. *Prosperity for All: How Climate Change Mitigation Grantmaking Supports Sustainable Development*. *ClimateWorks Foundation*.

103 *Sustainability as BlackRock’s New Standard for Investing*. *BlackRock*. Accessed July 2021.

104 *Convergence*, 2019. *The State of Blended Finance 2019*.

105 *Asia Natural Capital Design Funding Window (RS Group)*. *Convergence*. Accessed July 2021.

106 *Introduction to Climate Finance*. *United Nations Framework Convention on Climate Change*. Accessed July 2021.

107 *The Trillion Dollar Climate Finance Challenge (and Opportunity)*, 2021. *United Nations*. Accessed July 2021.

108 Organisation for Economic Co-operation and Development, 2018. *Making Blended Finance Work for the Sustainable Development Goals*.

Ecosystem Data

Figure 22: Most significant improvements in the Southeast Asian climate and environmental entrepreneurial ecosystem in the last three years



N = 68

Youth engagement and increased collaboration and support within the ecosystem were also cited as top improvements in the region. The shift away from Southeast Asia’s carbon-intensive development trajectory requires decisive action from all stakeholders. A leading example would be the waste management sector. Recycling initiatives in the region – such as Rethinking Recycling Academy – are inclusive and engage all actors in the waste management cycle, from informal waste pickers and residents to multinational companies and municipal governments, to effectively close the loop.¹⁰⁹

Some countries in Southeast Asia have also seen improvement in regulatory environments and the creation of more enabling policies over recent years. In 2017, the Vietnamese government authorized the state-owned electric utility, Vietnam Electricity (EVN), to purchase solar power from independent producers. Such tariffs have been a forceful impetus for jump-starting growth in renewable energy, resulting in many emerging solar-related startups.¹¹⁰ The Low Carbon Development Initiative (LCDI) launched by the Indonesian Ministry of National Development Planning (BAPPENAS) and integrated into the country’s 2020–2024 development plan serves as another positive example.¹¹¹ Setting ambitious targets such as increasing the share of renewable energy in the power sector by at least 30% in 2045, and increasing land productivity by 4% each year,¹¹² have called for an integrated system approach and improved transparency in policy design.¹¹³ Despite some mismatch in regulatory development,¹¹⁴ this signal from Indonesia’s government may encourage more climate and environmental entrepreneurship to occur in the nation.

109 [Our Approach. Rethinking Recycling Academy, McKinsey.org](#). Accessed July 2021.

110 [The Government of Vietnam Declares the Feed-in Tariff for Solar Power in Vietnam at 9.35 UScents/kWh, 2017. Vietnam Energy](#). Accessed July 2021.

111 BAPPENAS, 2019. [Low Carbon Development: A Paradigm Shift Towards a Green Economy in Indonesia](#).

112 Increasing land productivity by 4% each year, to enable Indonesian farmers to grow more food and feed more people, while using fewer resources. Source: *Ibid.*

113 *Ibid.*

114 In the energy sector, renewables are being supported to take on a strong role – for example, through policies fostering the use of rooftop photovoltaic systems. However, the Indonesian government has also capped the price of domestic coal to boost consumption. Source: [Indonesia: Current Policy Projections. Climate Action Tracker](#). Accessed July 2021.

Insights and Implications

Challenges



Unsupportive regulations: The lack of a consistently supportive regulatory framework significantly impedes the growth of climate and environmental entrepreneurs. Hindering policies and coordination gaps within ministries can cause discouragement as entrepreneurs attempt to navigate the growth of their ventures. Moreover, infrastructure and logistics in Southeast Asia have traditionally been designed in favor of mass consumption, further challenging the ability of entrepreneurs to access new markets and putting them at a greater disadvantage to large-scale industries.



Limited understanding of climate and environmental business models: Climate and environmental business models have been widely discussed, but a knowledge gap remains on effective and replicable methods to combine sustainability, innovation, and management practices strategically into a profitable business model – while simultaneously adapting to or mitigating climate change.¹¹⁵ This also makes it difficult for any entrepreneur to transition to climate or environmentally-focused ventures, raising the question of whether the transformation genuinely reduces environmental destruction or is merely a greenwashing phenomenon.



Lack of appropriate financing mechanisms: Entrepreneurs introducing innovative business models face challenges finding effective financing mechanisms to support their growth. Currently, the financing market is dominated by grant financing, with little climate-focused equity and debt financing. This lack of knowledge and expertise among both investors and entrepreneurs has narrowed available financing options, making it hard for either side to find an ideal fit. Thus, while climate and environmental action have gained traction in the region, interests are not automatically transformed into monetary investment.



Inequitable opportunities for women: Socio-cultural biases, underrepresentation, and economic inequality are a few factors that make Southeast Asian women climate entrepreneurs lag behind their male counterparts. These challenges lead to missed opportunities that cause women entrepreneurs to lose out in areas that could create value and growth for their ventures and further the already disproportionate impact women face from climate vulnerability.

Insights and Implications

Opportunities



Inclusive engagement: The inequitable impacts of climate change may be seen as an opportunity to implement solutions with greater inclusivity – especially in a region of widening development gaps.¹¹⁶ Offering women more chances to partake in growing climate and environmental solutions could unlock further potential for expansion and innovation in Southeast Asia’s entrepreneurial ecosystem. Young people have also demonstrated their power in catalyzing transformative action at all levels.¹¹⁷ Equipped with the right tools, youth may lead the way with their high resilience and open-minded approach. Finally, supporting rural and indigenous communities to transition to climate or environmentally-friendly practices presents a win-win situation – supporting sustainable economic development and the enhanced resilience of natural ecosystems.



Commitments to the Paris Agreement and SDGs: Mounting international concern amidst growing climate momentum has pressured government commitments to international treaties and agendas.¹¹⁸ Aside from serious climate threats, Southeast Asia is also facing a pandemic-induced economic crisis, where poverty rates have increased for the first time in two decades.¹¹⁹ Alignment with these targets allows the push for more action and funding that contributes to sustainable development. Thus, climate and environmental entrepreneurship may be leveraged by stakeholders as a strategic approach in striving for both economic and environmental stability.



Impact measurement: As the value proposition of a climate and environmental entrepreneur lies primarily in their beneficial impact, there is an opportunity for support organizations to help entrepreneurs quantify and communicate their impacts more clearly to stakeholders. Supporting climate entrepreneurs with the resources to collect data or sharing knowledge on effective ways to track progress could help their businesses scale while driving for more clarity in the process. There is also great potential for academia and other scientific groups to play a vital role in ensuring that the product or service contributes to climate change mitigation or adaptation. This remains a challenge across the impact investing sector globally and not limited to Southeast Asia.



Innovative financing models: The shift towards blended finance and climate finance allows more funding to reach climate and environmental entrepreneurs. These innovative financing models are designed to be more risk tolerant by leveraging initial funding from public and philanthropic sources to get started. Once many of the risks have been mitigated, the business becomes more attractive to venture capitalists and private investors, who play a crucial role in closing the financing gap. Thus, innovative financing models allow climate and environmental businesses to receive commercial investment and help draw attention to developing regions such as Southeast Asia. As these models require effective collaboration between both public and private sectors, there is also an opportunity for other entrepreneur support organizations to play a key role in ensuring successful outcomes.

116 Kasper-Claridge, M., 2018. [Asia's Growing Wealth Gap is a Problem that Can No Longer Be Ignored](#). *Deutsche Welle*. Accessed July 2021.

117 Jha, P., 2019. [The Young Activists Fighting Southeast Asia's Climate Crisis](#). *The Diplomat*. Accessed July 2021.

118 [ASEAN Cooperation on Climate Change](#). *ASEAN*. Accessed July 2021.

119 Hutt, D., 2020. [Pandemic Pushes SE Asia Back into Poverty](#). *Asia Times*. Accessed July 2021.

Recommendations

Advocate for climate and environmental entrepreneurs: The unsupportive regulatory environment in many Southeast Asian nations is a significant barrier for climate entrepreneurs that may be addressed through advocacy from support organizations. By acting as an experienced mediator between governments and entrepreneurs, support organizations can work individually and leverage their collective voice to help ensure that approved regulations will meet the needs of those on the ground. Additionally, it is just as important to understand and know how to use existing policies effectively. Entrepreneurs often require guidance on what enabling policies are available to support their climate and environmental business. Thus, support organizations may also serve as a knowledge hub to help to direct entrepreneurs around the regulatory barriers.

Engage the private sector: Private companies play an essential role in shaping policies, making them ideal partners in forming pre-competitive coalitions. Such associations could be a space for multiple businesses in the sector to collaborate without competition as they try to identify the policy barriers hindering the growth of their climate or environmental businesses. In facing similar challenges, coalitions can jointly request that the government provide stricter enforcement, awareness-raising, or subsidies. Examples of policy recommendations may include tax incentives for biodegradable plastic products¹²⁰ or subsidized eco-labeling and certification schemes.¹²¹ Other support organizations, such as capacity development providers and donor agencies, can help bring these coalitions together and facilitate dialogue between public and private sectors to solidify the financial pipeline for climate entrepreneurs.¹²²

Develop targeted incubation and acceleration programs: A critical aspect of building the Southeast Asian climate and environmental entrepreneurial ecosystem is developing a skilled pipeline of entrepreneurs. While several notable programs are adapted to local contexts to assist climate entrepreneurs in the region, there is a demand for more approaches to extensively scale the ecosystem of support.¹²³ This may include providing direct examples of successful climate and environmental business models that affect positive change but are also profitable. Moreover, to ensure inclusive engagement, there is a need to recognize diversity among the stakeholders. Support organizations need to understand their target audience – their main concerns, language, and local culture.¹²⁴ Hence, designing a program for rural communities would immensely differ from how one would approach urban groups.

Tailor services to the needs of women climate entrepreneurs: There are many factors to consider when mainstreaming gender into climate entrepreneurship support programs. One approach may be to recruit female coaches, who would already be well-versed in the needs and challenges experienced by women, to offer more tailored support to the cohort.¹²⁵ Other specific interventions for women could account for areas in which they lag, such as financial negotiation or pitching.¹²⁶ Showcasing success stories of women climate entrepreneurs in the community and promoting their experiences can also help shed light on women as key actors of change in climate mitigation and adaptation efforts. Support organizations should set concrete targets for their support of women and consistently collect data broken down by gender to assess and adjust the design of their activities.

120 Umeyama, K., 2020. Thailand Announced a Tax Incentive for Biodegradable Plastic Products. *Envilience*.

121 Organisation for Economic Co-operation and Development, 2021. Facilitating the Green Transition for ASEAN SMEs: A Toolkit for Policymakers.

122 An example would be the Global Plastic Action Partnership, initiated by the World Economic Forum.

123 *Ibid.*

124 For example, the traditional Hiligaynon term, "Wala Usik," meaning 'nothing wasted' has been used as a substitute for the more foreign concept of the circular economy.

125 Key stakeholder interview. 8 July 2021.

126 Key stakeholder interview. 24 May 2021.

Appendix

Appendix A: Climate and Environmental Sectors



Table 1: Percent of organizations by target climate and environmental sectors, by country

Cambodia N = 40

Climate / environmental sector	Percent / %
Sustainable agriculture and aquaculture	73
Renewable energy	48
Sustainable forestry and reforestation	33
Water and sanitation	33
Circular economy and waste reduction	28
Ecotourism and conservation	25
Sustainable infrastructure and transportation	18
Clean air and pollution reduction	13
Disaster risk reduction and mitigation	10
Other	3

Indonesia N = 99

Climate / environmental sector	Percent / %
Sustainable agriculture and aquaculture	53
Sustainable forestry and reforestation	49
Circular economy and waste reduction	42
Ecotourism and conservation	27
Renewable energy	26
Water and sanitation	19
Sustainable infrastructure and transportation	14
Clean air and pollution reduction	9
Disaster risk reduction and mitigation	7
Other	4

Myanmar N = 36

Climate / environmental sector	Percent / %
Sustainable agriculture and aquaculture	75
Renewable energy	50
Sustainable forestry and reforestation	42
Water and sanitation	33
Ecotourism and conservation	31
Circular economy and waste reduction	22
Clean air and pollution reduction	22
Disaster risk reduction and mitigation	22
Sustainable infrastructure and transportation	14
Other	3

Philippines N = 53

Climate / environmental sector	Percent / %
Sustainable agriculture and aquaculture	58
Circular economy and waste reduction	47
Renewable energy	38
Sustainable forestry and reforestation	36
Sustainable infrastructure and transportation	34
Water and sanitation	32
Disaster risk reduction and mitigation	23
Ecotourism and conservation	23
Clean air and pollution reduction	17
Other	2

Appendix

Table 1: Percent of organizations by target climate and environmental sectors, by country (continued)

Thailand		N = 41	Vietnam		N = 60
Climate / environmental sector	Percent / %		Climate / environmental sector	Percent / %	
Sustainable agriculture and aquaculture	63		Sustainable agriculture and aquaculture	57	
Circular economy and waste reduction	61		Renewable energy	42	
Renewable energy	51		Circular economy and waste reduction	40	
Sustainable forestry and reforestation	44		Sustainable forestry and reforestation	38	
Clean air and pollution reduction	34		Water and sanitation	25	
Sustainable infrastructure and transportation	34		Ecotourism and conservation	22	
Water and sanitation	29		Sustainable infrastructure and transportation	20	
Ecotourism and conservation	27		Clean air and pollution reduction	15	
Disaster risk reduction and mitigation	20		Disaster risk reduction and mitigation	13	
Other	7		Other	3	

Appendix B: Survey Design

Definitions

Climate and environmental entrepreneurs are change agents who see venture creation as a way to address pressing challenges related to climate change and other critical environmental issues. In building their business, growth orientation is combined with the ambition to create a greener and more sustainable world.¹²⁷

Screening criteria

An initial screening criterion was developed to help identify entrepreneur support organizations that are key actors in the climate and environmental space. To be featured in this snapshot, the organization must:

- Provide capacity development, financial, or knowledge and advisory support to entrepreneurs
- Incorporate climate or environmental considerations in their vision, mission statement, or strategy
- Have an ongoing climate or environmental initiative that targets entrepreneurs
- Have a climate or environmental initiative operating in either: Cambodia, Indonesia, Myanmar, Philippines, Thailand, Vietnam

Climate and environmental sectors

The sectors listed in this report were primarily chosen to cover all the relevant UN Sustainable Development Goals (SDGs) – SDGs 6, 7, 11, 12, 13, 14, 15. A further literature review was completed on the products and services climate and environmental entrepreneurs offer to verify the selection.

127

Hörisch, J., Kollat, J. and Brieger, S.A, 2017. *What Influences Environmental Entrepreneurship? A Multilevel Analysis of the Determinants of Entrepreneurs' Environmental Orientation*, *Small Business Economics*, 48, 47–69.

Appendix

Appendix C: Limitations

The extensive entrepreneurial ecosystem

The organizations identified may not represent the entire climate and environmental entrepreneurial ecosystem in Southeast Asia. A contributing factor is the suspected large numbers of entities operating in an informal manner or other unknown microstructures.

The data and analysis presented in this report depend on the respondents answering the survey and the number of organizations from each country that contributed data. Also, some organizations may have been missed during the initial screening criteria, as they did not have an active climate or environmental initiative at the time of the data collection.

Data accessibility and availability

As desktop research contributed to a portion of the data collection, only information available on organization websites was used.

It is also important to note that this research was conducted amidst the 2021 Myanmar coup d'état, where many organizations have had to halt their programs due to the unrest. In this report, unless explicitly stated, data and analysis on Myanmar refer to the period before the coup.

Variability between countries and sectors

While this research focuses on the regional level, it must be noted that there are significant variations between each country regarding land, population, economic performance, and governance practices. Similarly, there are also disparities across each environmental sector.

Remote collection of primary data

Due to COVID-19 restrictions, on-site visits and in-person interviews were not possible. Interviews were completed over online calls.



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