

Access to Finance: Issues and Challenges to ASEAN

**ASEAN Socio-Cultural Community Flagship
Report No. 6 (2024)**

ASCC Research and Development Platform on Climate Change



one vision
one identity
one community



ASEAN Socio-Cultural Community Trend Report

ASCC Research and Development Platforms Programme

The ASEAN Secretariat
Jakarta

The Association of Southeast Asian Nations (ASEAN) was established on 8 August 1967. The Member States are Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam.

The ASEAN Secretariat is based in Jakarta, Indonesia.

For inquiries, contact:

The ASEAN Secretariat

Community Relations Division (CRD)

70A Jalan Sisingamangaraja

Jakarta 12110, Indonesia

Phone: (62 21) 724-3372, 726-2991

Fax: (62 21) 739-8234, 724-3504

E-mail: public@asean.org

Catalogue-in-Publication Data

ASEAN Socio-Cultural Community (ASCC) Trend Report Jakarta, ASEAN Secretariat

Classification Number:

363.7

1. ASEAN – Socio-Cultural – Climate Change

2. Climate Action – Climate Finance – Financial Investment

ISSN: 22986 - 4224

Vol. 6 (2024)

ASEAN: A Community of Opportunities for All

The text of this publication may be freely quoted or reprinted, provided proper acknowledgement is given and a copy containing the reprinted material is sent to the Community Relations Division (CRD) of the ASEAN Secretariat, Jakarta.

General information on ASEAN appears online at the ASEAN Website: www.asean.org

Copyright The Association of Southeast Asian Nations (ASEAN) 2024. All rights reserved.



This trend report was made possible with the support of:
The Government of Japan through the Japan-ASEAN Integration Fund (JAIF)

Editorial Committee of the ASCC Research and Development Platforms Programme

Advisor:	Dr. Kao Kim Hourn , <i>Secretary-General of ASEAN</i>
Chairperson:	Ekkaphab Phanthavong , <i>Deputy Secretary-General of ASEAN for ASEAN Socio-Cultural Community</i>
Members:	Rodora T. Babaran , <i>Director of Human Development Directorate</i> Ky-Anh Nguyen , <i>Director of Sustainable Development Directorate</i> Roger Yap Chao Jr. , <i>Head of Education, Youth and Sports Division</i> Ferdinal Fernando , <i>Head of Health Division</i> Mega Irena , <i>Head of Labour and Civil Service Division</i> Miguel Musngi , <i>Head of Poverty Eradication and Gender Division</i> Jonathan Tan , <i>Head of Culture and Information Division</i> Riyanti Djalante , <i>Head of Disaster Management and Humanitarian Assistance</i> Vong Sok , <i>Head of the Environment Division</i>
Managing Editor:	Benjamin Loh , <i>Head of ASCC Monitoring Division</i>
Production Editors:	ASCC Analysis Division

This report is a publication of the ASEAN Socio-Cultural Community Department of the ASEAN Secretariat. The views expressed in this publication are those of the authors, and do not necessarily reflect the views of ASEAN, ASEAN Member States, the ASEAN Secretariat, or ASEAN Dialogue Partners. For more information about the ASCC Research and Development Platforms Programme contact the ASCC Analysis Division at ASCCAD@asean.org.

Table of Contents

Executive Summary	8
<hr/>	
1. Introduction	9
<hr/>	
2. Climate Financing Issues and Gaps	10
2.1	Widening Funding Gaps for Climate Financing 10
2.2	High Reliance on Government Funding 11
2.3	Increasing, but Slow Pace of International Contribution 13
2.4	Climate Financing Resources Focus on Selective Sectors and are Skewed Towards Mitigation Activities 15
2.5	Growing Private Participation but Still at the Nascent Stage 17
2.5.1	Bank-Backed Financing 18
2.5.2	Bond market financing 19
2.5.3	Equity market financing 21
2.6	Uneven Development and Distribution of Finance Among the AMS 24
<hr/>	
3. Addressing Climate Financing Challenges and Narrowing the Gap	25
3.1	Improve Public Finance and Increase Allocative Efficiency for Post-Pandemic Recovery 25
3.2	De-Risking Investments in Green Infrastructure 27
3.3	Strengthening Regulatory Readiness and Addressing the Definitional Gap 27
3.4	Addressing Data Gaps 31
3.5	Building Capacity 32
<hr/>	
4. Conclusion	33
<hr/>	
References	34

Table of Figures

Figure 1.	Global climate finance flows	10
Figure 2.	Global climate finance by region	11
Figure 3.	Tax revenue (% of total government revenue)	12
Figure 4.	Government revenue (% of nominal GDP)	12
Figure 5.	Climate finance provided and mobilised in 2013-2021 (in billion USD)	13
Figure 6.	Climate-related development finance in ASEAN (Principle + Significant)	14
Figure 7.	Climate-related development finance in ASEAN by providers from 2010-2019	15
Figure 8.	Climate-related development finance in ASEAN by top 10 sectors, 2010-2019	16
Figure 9.	Provision of public financial by type of support in ASEAN	17
Figure 10.	Developing countries primarily dependent on bank-backed financing	18
Figure 11.	Domestic credit to the private sector by banks (% of GDP)	19
Figure 12.	Consolidated sustainable bonds outstanding in ASEAN, 2017-2021 (US\$ Million)	20
Figure 13.	Consolidated sustainable bonds outstanding in ASEAN (US\$ Million)	20
Figure 14.	ESG scoring increased across the ASEAN Equity Markets	23
Figure 15.	Official development assistance for climate in selected AMS, 2019	24
Figure 16.	Impact of stimulus on climate change	26

List of Tables

Table 1.	Initiatives and reporting requirements in major equity markets in ASEAN	22
Table 2.	Climate change efforts by ASEAN Central Banks and other regulators	28

Access to Finance: Issues and Challenges to ASEAN

ASEAN Socio-Cultural Community Flagship Report No. 6 (2024)

ASCC Research and Development Platform on Climate Change

Gopi Krishnan (C&G Analytica), **Sonia Kumari** (Universiti Malaya), and
Sarpaneswaran Subramaniam (C&G Analytica)

Executive Summary

ASEAN is highly vulnerable to the impacts of climate change, and the ASEAN Member States (AMS) have set exceedingly high targets in reducing carbon emissions which requires access to climate financing.

Funding gap in ASEAN has widened despite various initiatives at the national and regional levels. The COVID-19 pandemic exacerbated this gap, especially for AMS, which highly depend on public funding for climate mitigation and adaptation.

Barriers to climate change financing include existing policies that limit AMS' access to concessional funding, lack of private sector financing, and uneven distribution of finance in the region. In addition, data and information gaps inhibit stakeholders from easily accessing and critically reviewing ongoing initiatives and proposals on climate-related risks to the financial system.

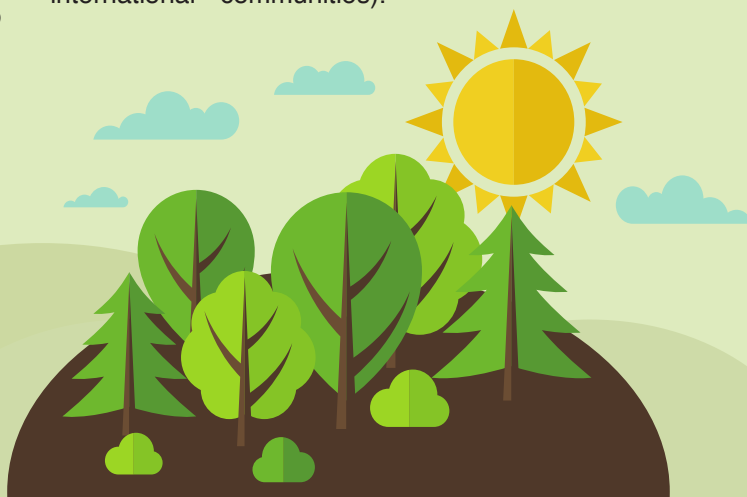
Private sector investment is gaining traction but is still in the early stages. It plays a central role in climate finance by investing directly in mitigation projects or de-risking investments to attract private capital investment. Access to private capital depends on developing financial and capital markets in the AMS. ASEAN's efforts to develop sustainable standards and a taxonomy can potentially improve access to capital market financing.

The pace of financial access is uneven across AMS, and harmonising standards and addressing definitional gaps can enable AMS to leverage domestic savings and mobilise foreign capital to finance climate change. Leveraging international

organisations and multilateral development banks through concessional loans, grants, guarantees, and philanthropic contributions is key to maximising economic and social returns on investment. Pledged contributions from developed countries are also critical in achieving Nationally Determined Contribution (NDC) goals, especially for countries bound by NDC targets.

Establishment of funding arrangements and dedicated funds can improve the adaptive capacity of vulnerable countries, and help AMS mitigate the adverse effects of climate change.

In moving forward, ASEAN needs to (1) Improve public finance and increase allocative efficiency for post-pandemic recovery; (2) De-risk investments in green infrastructure; (3) Strengthen regulatory readiness and address definitional gap; (4) Address data gaps (e.g., information availability and accessibility of climate finance data as well as requirements); and (5) Build capacity to further improve access to climate finance (awareness among all stakeholders on climate finance landscape, building talent and capacity to regularly update climate action plans and strengthen risk reduction measures, in line with the funding trends and prioritisations areas of international communities).



1. Introduction

Climate change is already causing catastrophic damage to the planet, with half of the world at risk of water shortages and global warming, putting billions of people at risk of extreme heat, disease, and hunger. In 2020, it was estimated that economic losses from natural disasters is at US\$ 268 billion (AON, 2021). In February 2022, the Intergovernmental Panel on Climate Change (IPCC) reported that climate collapse might occur sooner than expected, with many parts of the world deteriorating in the coming decades (IPCC, 2022). As the impacts of climate change worsen, it is critical to scale up investments, particularly in climate actions. Climate financing can help countries cut greenhouse gas emissions to zero and meet the goals set out in the Paris Agreement.

Climate action requires significant financial investments, such as new energy systems and infrastructure. Climate finance that supports the reduction of greenhouse gas emission helps countries cope with the current and future impacts of climate change. Finance from public, private, and alternative sources is critical in mitigating climate change, as large-scale investments are needed in sectors that emit significant amounts of greenhouse gases. The Asian Development Bank (ADB) estimates that ASEAN will require annual investments of US\$ 210 billion between 2019 and 2030 to finance climate-resilient infrastructures (Asian Development Bank, 2021).

With climate finance still in its early stages in ASEAN, it is essential to ensure that ASEAN Member States (AMS) can access climate finance not only from domestic sources but also multilateral and bilateral funds as well as mobilising foreign capital. The Nationally Determined Contributions' (NDC) targets for several AMS depend on external financial support. While most AMS have reaffirmed their commitment to addressing the impact of climate change, they have also emphasised the need for adequate financing to meet their NDC commitments.

2. Climate Financing Issues and Gaps

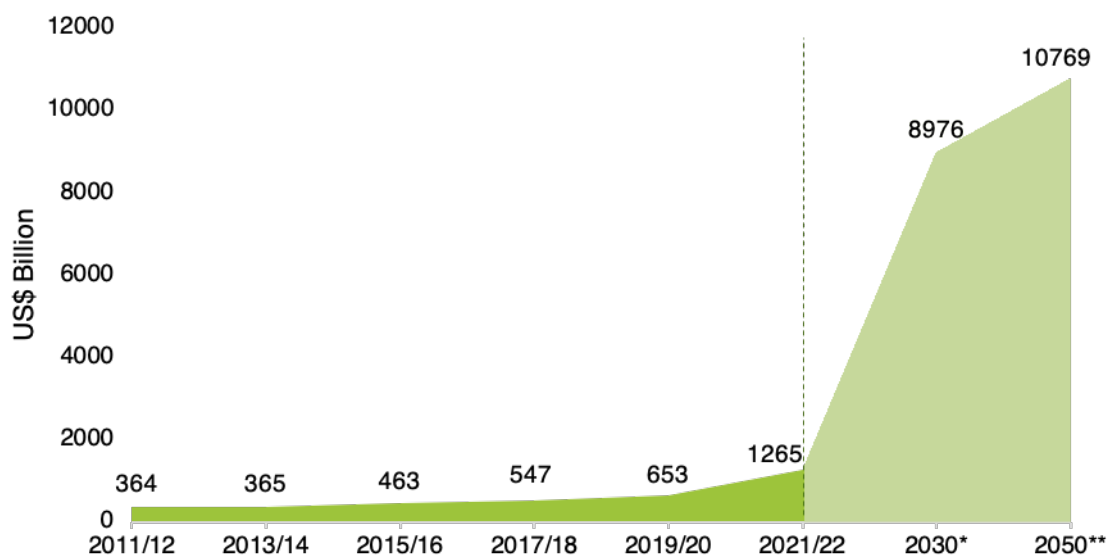
Climate finance is a relatively new area for most AMS and needs further study. Nevertheless, gaps in climate finance limit the integration of climate action for businesses and the financial sector, which threatens the success of green finance in ASEAN. Several AMS rely heavily on public financing from government funding and multilateral and bilateral agreement in meeting their NDC commitments. Private sector participation is gaining pace; however, it is dependent on the development of financial and capital markets.

2.1 Widening Funding Gaps for Climate Financing

Global climate finance flows have steadily increased, reaching almost USD 1.3 trillion in 2021/2022 (Climate Policy Initiative, 2023). Nevertheless, the current flows only represent about 1% of global GDP in 2022. It is far from reaching the annual climate finance needed through 2030, which has increased from USD \$8.1 trillion to about \$9 trillion. Failure to narrow the financing gaps will result in higher cost of

mitigation and exacerbate impacts of climate change in the future. This situation poses serious climate implications, particularly for vulnerable regions like ASEAN, where a global temperature rise will severely impact the economy, environment, and people.

Figure 1. Global climate finance flows

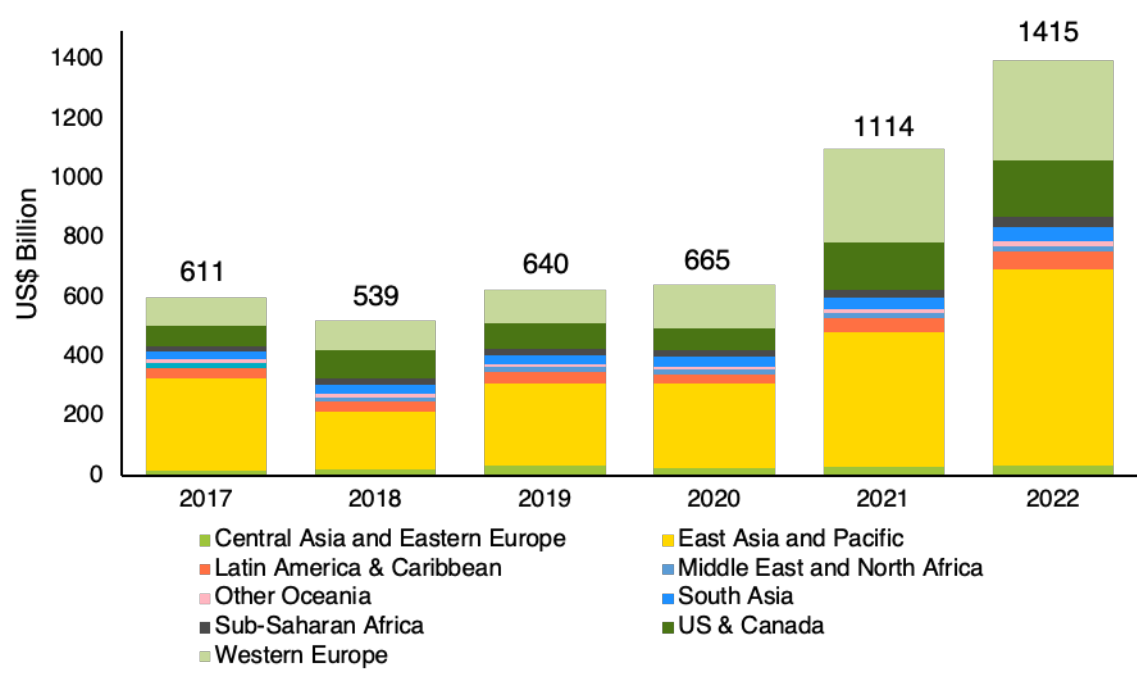


Source: Climate Policy Initiative (2023)

The East Asia and Pacific region, accounts for nearly half of the total climate financial flows (Figure 2). However, most of the climate financing in East Asia and the Pacific is from the public sector, accounting for 61% compared to the private sector contribution

of 39%. In contrast, 77% of climate change financing in the US and Canada is contributed by the private sector, whereas 23% comes from the public sector (Climate Policy Initiative, 2023).

Figure 2. Global climate finance by region



Source: Climate Policy Initiative (2023)

Since the establishment of NDCs in ASEAN, there has been advancements in accessing climate finance. However, the ability to raise funds depends on the attractiveness of climate investments relative to competing investment opportunities. Climate finance primarily focuses on mobilising new funds and reshaping existing investment behaviours. Financing flows from donor countries and multilateral organisations play a significant role as a key resource for climate financing, especially among the low and low-middle income economies in the region.

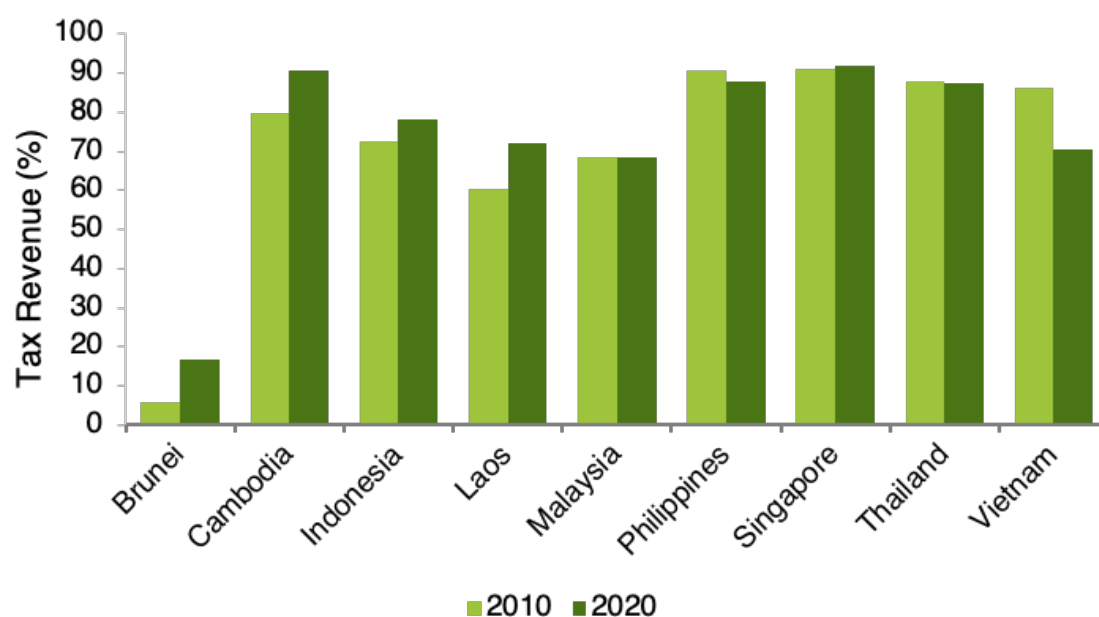
2.2 High Reliance on Government Funding

Government and international institutions provide financial support for climate change initiatives in most of the AMS. These funds exist at regional, national, local, and municipality or district levels, contributing to the entire climate finance ecosystem. As climate finance is still in its infancy in the ASEAN region, the role of the government in providing finance is critical. In addition, climate change projects are often described as public goods and welfare-oriented projects. The government must play a catalytic role in attracting private capital to fulfil the NDCs as

promised. Private sector participation is risky and becomes non-bankable, without risk mitigation for such investments. In the meantime, the public sector must continue to provide capital to finance climate change initiatives.

Tax revenues are critical source of government funding for developing countries. While it is important to have adequate and complete data on the use of tax revenue for climate financing, it is clear that tax revenue is critical in financing climate-

Figure 3. Tax revenue (% of total government revenue)

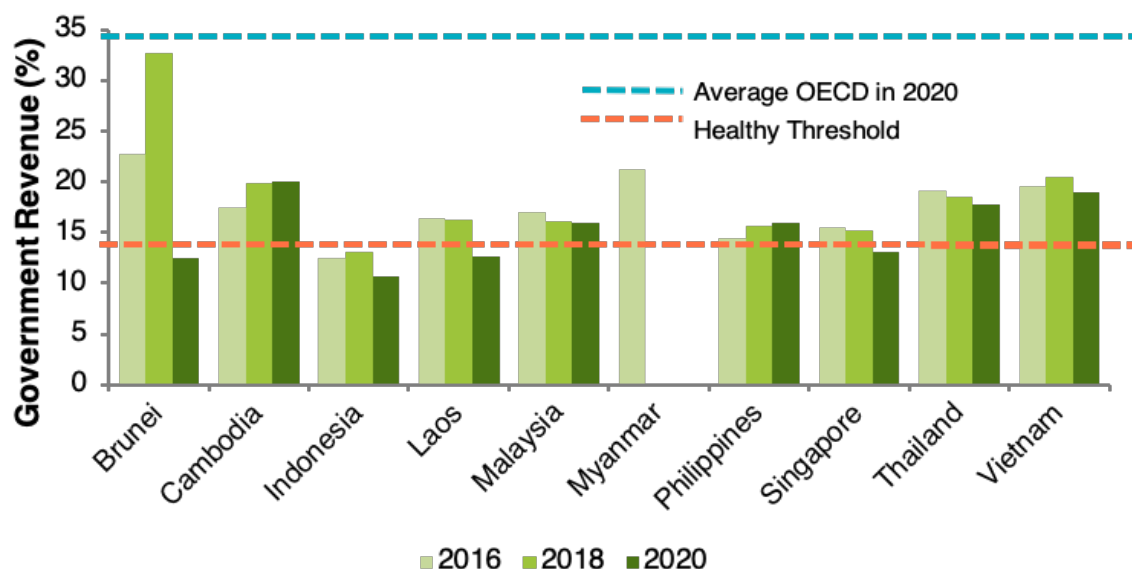


Source: World Bank; Authors' calculation

related initiatives and programmes. In several AMS, tax revenues account for nearly 90% of the total government revenues (Figure 3). Despite being the largest contributor to government budget financing, the share of tax revenues in the gross domestic product (GDP) still needs to be higher in most AMS. Tax revenues as a share of GDP are far below the Organisation for Economic Cooperation and Development (OECD) average in AMS. The

COVID-19 pandemic has worsened the conditions, as government revenues in ASEAN have declined significantly. Several AMS experienced a decline in government revenues to below 15% of the GDP, which according to the Junquera-Varela & Haven (2018), is a critical threshold for economic growth and poverty reduction (Figure 4).

Figure 4. Government revenue (% of nominal GDP)



Source: OECD and World Bank (2021)

Asia-Pacific countries have taken steps toward implementing environmental tax reforms (UN ESCAP, 2018). In ASEAN, several AMS implemented environmental taxes such as Indonesia’s execution of fossil fuel subsidy reform and Vietnam’s implementation of the Environmental Protection Tax. Indeed, environmental taxes effectively embed economic, social, and ecological costs into the price of environmental goods and services, thus encouraging environmentally responsible practices. Therefore, environmental tax reforms should be an integral component of national development strategy, and reforms should be taken forward to contribute to an environmentally sustainable economy.

2.3

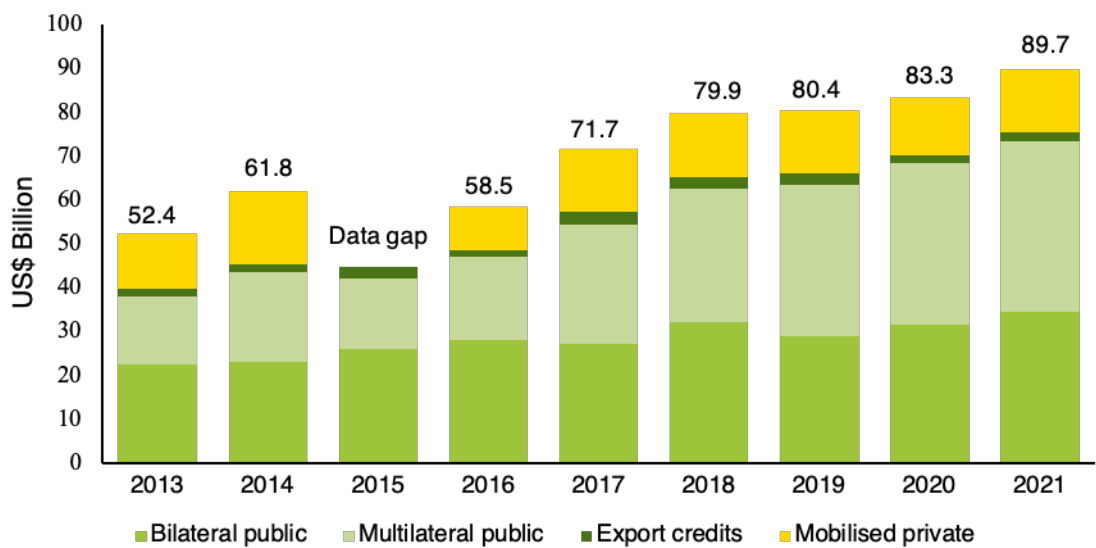
Increasing, but Slow Pace of International Contribution

Although several AMS have pledged their commitment to NDCs and the Conference of Parties (COP) 26 to reduce carbon emissions, the contribution of international parties have been slow. Public finance, ranging from transnational financing to regional climate funds, is vital to economic development, particularly in low and middle-income economies. Collective action on climate change is critical to ensure that the global economy can meet the climate goal of decarbonisation. As highlighted in the ASEAN Joint Statement on Climate Change to the United Nations Framework Convention on Climate Change (UNFCCC) COP 28, developed country Parties should fulfil their commitments on financing, technology development and transfer, as well as capacity building to enable developing

countries to progress towards decarbonisation goals. ASEAN urges developed countries to deliver their commitment to provide US\$ 100 billion annually and increase climate finance beyond this objective before 2025. Moreover, ASEAN calls for establishing a new collective quantified goal after 2025 to support climate change initiatives in developing countries, including ASEAN.

Climate finance mobilised by developed countries to fund climate initiatives in developing countries is growing over the years, but at a slower pace, remaining below US\$100 billion (Figure 5) (OECD, 2023). ASEAN stresses the urgency for developed countries to scale up further mobilization of climate finance to the Green Climate Fund (GCF), the

Figure 5. Climate finance provided and mobilised in 2013-2021(in billion USD)



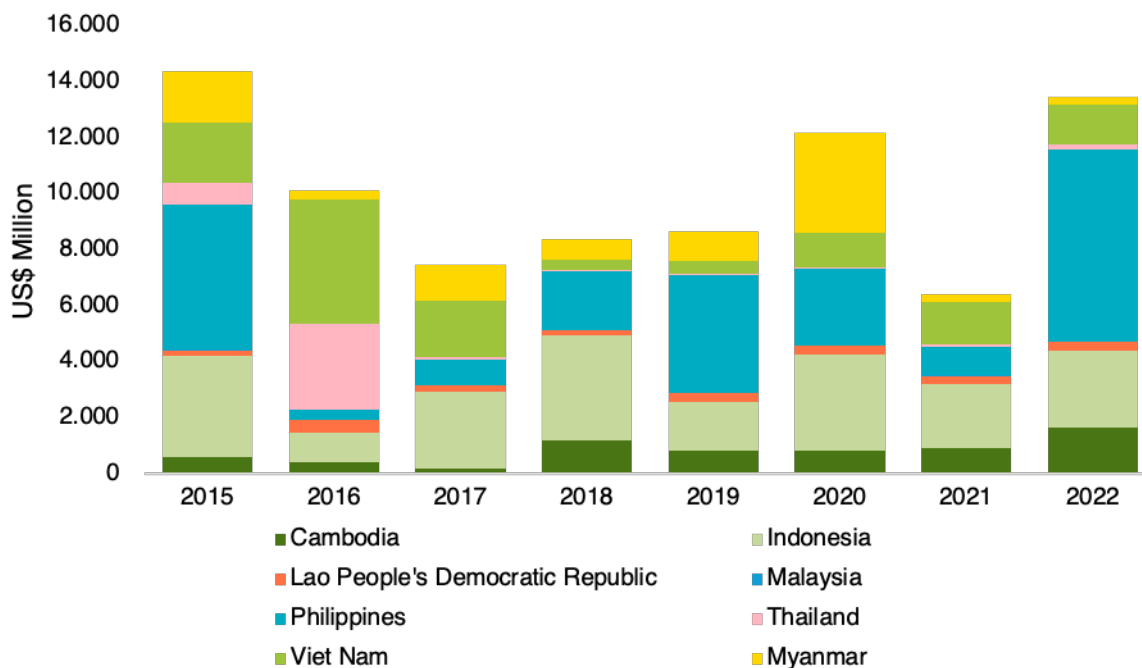
Note: The gap in the time series data for mobilized private finance in 2015 is attributed to the adoption of enhanced measurement methodologies starting from 2016 onwards.

Source: OECD (2023)

Global Environment Facility (GEF), the Adaptation Fund, and the Least Developed Country Fund. This increased support is crucial to assist AMS' pathway towards achieving low greenhouse gas (GHG) emissions. Climate-related external finance for ASEAN economies experienced growth from

2017 to 2020 but declined sharply in 2021 (Figure 6). Although climate-related finance has rebounded in 2022, urgent attention is still required to ensure continuous support for promoting climate initiatives, particularly among the low-income economies within the region.

Figure 6. Climate-related development finance in ASEAN (Principle + Significant)



Source: OECD (2024)

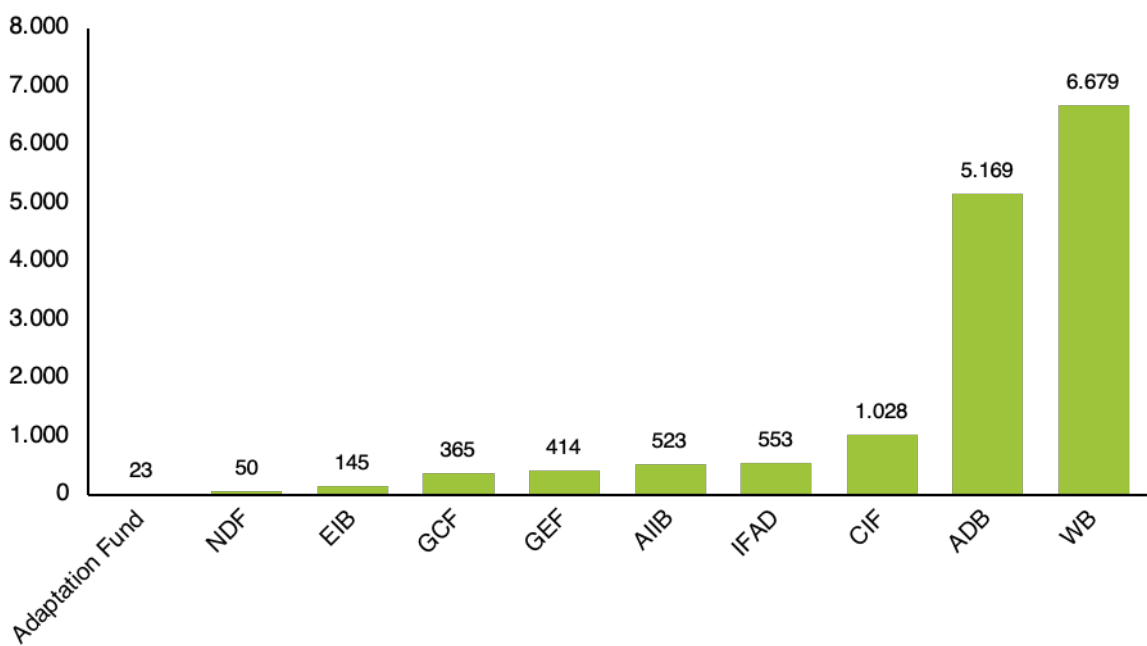
The World Bank (WB) and the ADB are key funding agencies in ASEAN that play a critical role in providing financing and capacity-building support related to the Climate Change Initiative (Figure 7). The Climate Change Action Plan 2021-2025 from WB introduces the GRID (Green, Resilient, and Inclusive Development) approach to eradicate poverty and promote shared prosperity from a sustainable perspective. This plan represents a shift from focusing on green projects to greening the entire economy. The WB projects focus on creating impact rather than an input-driven approach to address the challenges of climate change. The WB aims to increase group funding for climate financing from an average of 26% in 2016-2020 to 35% for 2021-2025. In addition to financing development projects, the WB also plays a critical role in establishing the Southeast Asia Disaster Risk Insurance Facility (SEADRIF) with ASEAN+3 countries (SEADRIF, 2018). SEADRIF is the first regional facility in Asia to provide financing and insurance solutions for climate and disaster risks.

As a regional platform, SEADRIF will provide AMS with financial solutions and technical advice to better manage the impacts of climate-related disasters.

Likewise, the ADB has a significant role in supporting development projects and eradicating extreme poverty Asia and the Pacific. During the COVID-19 pandemic, ADB responded with a US\$ 29 billion package with the Southeast Asia region as the biggest recipient with 282 development projects worth US\$ 11.4 billion. However, not all allocated funds go to climate change financing. Concerning climate financing in ASEAN, the ADB plays an instrumental role in managing the ASEAN Catalytic Green Finance Facility (ACGF) which is an ASEAN infrastructure fund that promotes environmentally sustainable infrastructure development projects (Asian Development Bank, 2022). The ACGF adopts a two-pronged approach- offering technical assistance to governments in identifying and preparing commercially viable green infrastructure

projects, while ACGF loans are utilized to cover the upfront capital investment costs. The ACGF helps de-risk green infrastructure projects and makes climate investment more attractive for private capital participation. The ASEAN Green Recovery Platform is also an ADB-managed initiative linked to ACGF to accelerate green infrastructure pipeline projects for post-pandemic recovery. The platform, which is subjected to ADB’s standard process and due diligence, aims to assist in financial restructuring, technical assistance for green bond issuance, and de-risking loan funds to accelerate financing for climate-related activities (Asian Development Bank, 2019).

Figure 7. Climate-related development finance in ASEAN by providers from 2010-2019



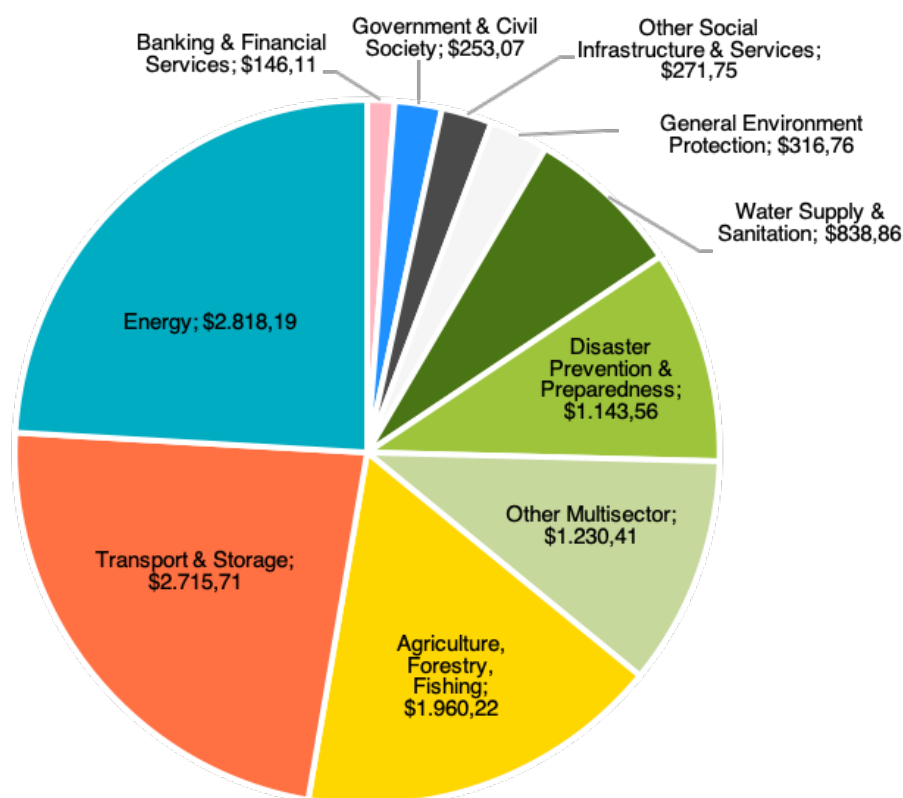
Source: OECD DAC External Development Finance Statistics

2.4 Climate Financing Resources Focus on Selective Sectors and are Skewed Towards Mitigation Activities

Likewise, the ADB has a significant role in supporting development projects and eradicating extreme poverty Asia and the Pacific. During the COVID-19 pandemic, ADB responded with a US\$ 29 billion package with the Southeast Asia region as the biggest recipient with 282 development projects worth US\$ 11.4 billion. However, not all allocated funds go to climate change financing. Concerning climate financing in ASEAN, the ADB plays an instrumental role in managing the ASEAN Catalytic Green Finance Facility (ACGF) which is an ASEAN infrastructure fund that promotes environmentally sustainable infrastructure development projects (Asian Development Bank, 2022). The ACGF adopts a two-pronged approach- offering technical assistance to governments in identifying and

preparing commercially viable green infrastructure projects, while ACGF loans are utilized to cover the upfront capital investment costs. The ACGF helps de-risk green infrastructure projects and makes climate investment more attractive for private capital participation. The ASEAN Green Recovery Platform is also an ADB-managed initiative linked to ACGF to accelerate green infrastructure pipeline projects for post-pandemic recovery. The platform, which is subjected to ADB’s standard process and due diligence, aims to assist in financial restructuring, technical assistance for green bond issuance, and de-risking loan funds to accelerate financing for climate-related activities (Asian Development Bank, 2019).

Figure 8. Climate-related development finance in ASEAN by top 10 sectors, 2010-2019

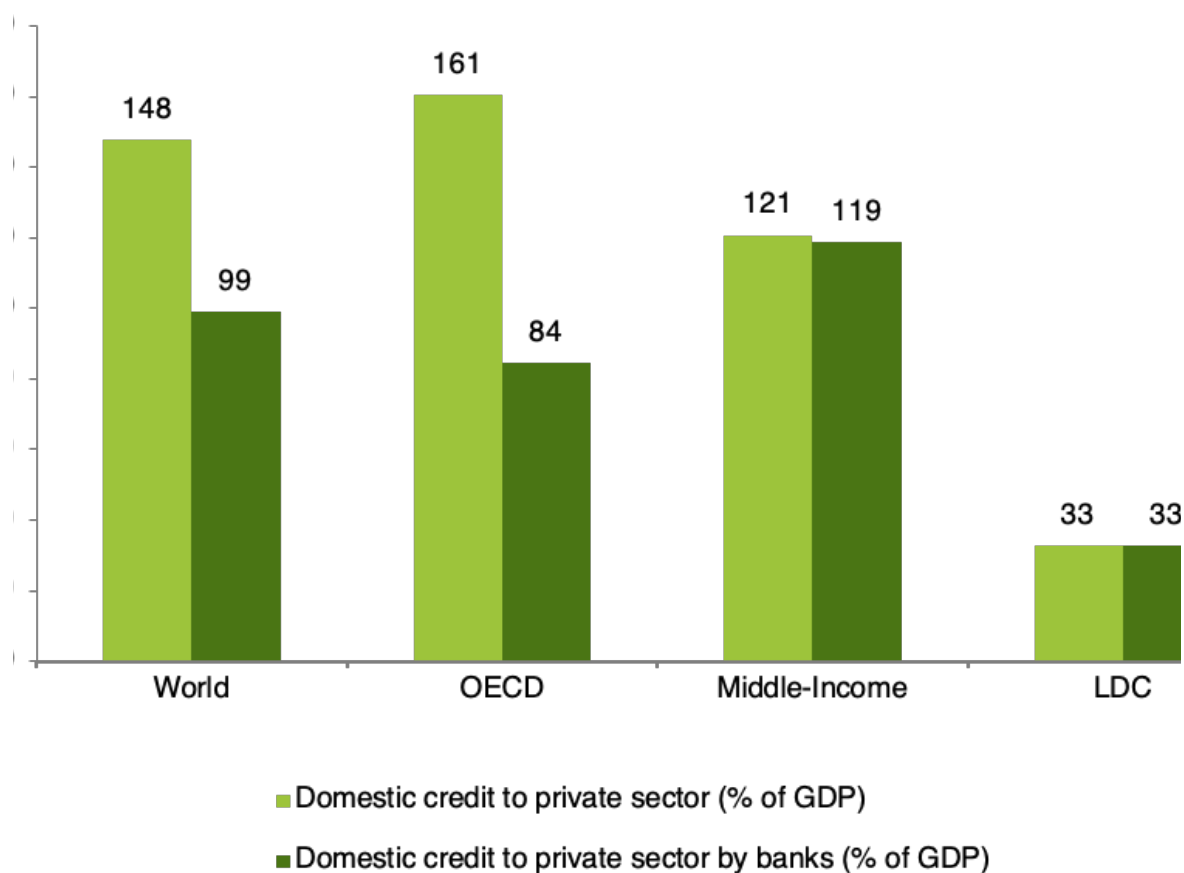


Source: OECD DAC External Development Finance Statistics

Meanwhile, allocating funds between mitigation and adaptation is a significant point of discussion in climate finance. Most public climate finances provided to developing countries are for mitigation projects that reduce carbon emissions rather than for facilitating adaptation initiatives for climate change. Article 9.4 of the Paris Agreement emphasises increasing funding to balance adaptation and mitigation activities. Adaptation finance is key to building climate resilience and developing the capacity to respond to the physical risks of climate change. Although adaptation funding increased by 53% globally in 2019/2020, it accounts for only 7% of the total funds and is predominantly public-funded. A similar trend can be observed in ASEAN, where the allocation of finance from public funds covered in the Fifth Biennial Report shows that climate finance primarily focuses on supporting mitigation activities at 68% while adaptation finance accounts for 29% of total public funding allocation (Figure 9). Private donors tend to favour mitigation projects because they produce clear and measurable results, while it takes more work to define successful adaptation actions.

To effectively achieve net-zero target under NDCs, equal emphasis should be placed on the mitigation and adaptation approaches. Promoting adaptation finance is challenging in ASEAN because of the fragmented nature of the financial sector development in the region and the lack of climate-related data available to countries (Climate Policy Initiative, 2021). Addressing this issue is critical in meeting NDC targets and attracting international climate change finance in the coming years. For example, the US\$100 billion pledge from developed countries will focus on adaptation funding and the G7 countries have announced specific plans to accelerate adaptation funding. An informal Adaptation Finance Champion Group has been formed to increase global funding for adaptation and resilience and to encourage other developing countries to leverage their funds for adaptation finance .

Figure 9. Provision of public financial by type of support in ASEAN



Source: UNFCCC Fifth Biennial Reports (2020)

The report from developed countries co-led by Canada's Minister of Environment and Climate Change, Jonathan Wilkinson and Jochen Flasbarth, Germany's State Secretary at the Ministry for Environment, Nature Conservation and Nuclear Safety.

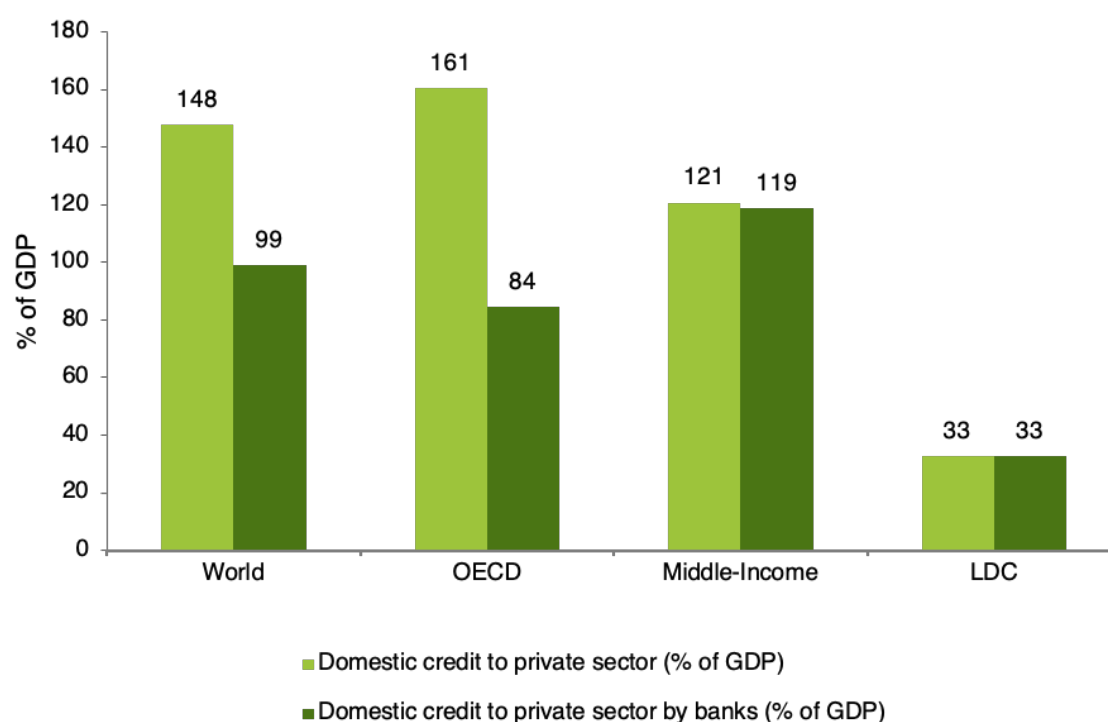
2.5

Growing Private Participation but Still at the Nascent Stage

Despite the widely recognized need, private sector engagement remains in its infancy and faces several profound challenges. While public financing plays a central role in providing catalytic capital and de-risking investments, additional resources beyond public funding are essential to meet NDC targets for decarbonization. In most advanced economies, private sector investment accounts for a larger share

of climate finance than public finance, as seen in the U.S.A and Canada. Bank-based and market-based finances mainly support private finance. While market-based finance mainly supports investments in developed economies, most developing countries rely heavily on bank-based finance as a source of credit for the private sector (Figure 10).

Figure 10. Developing countries primarily dependent on bank-backed financing



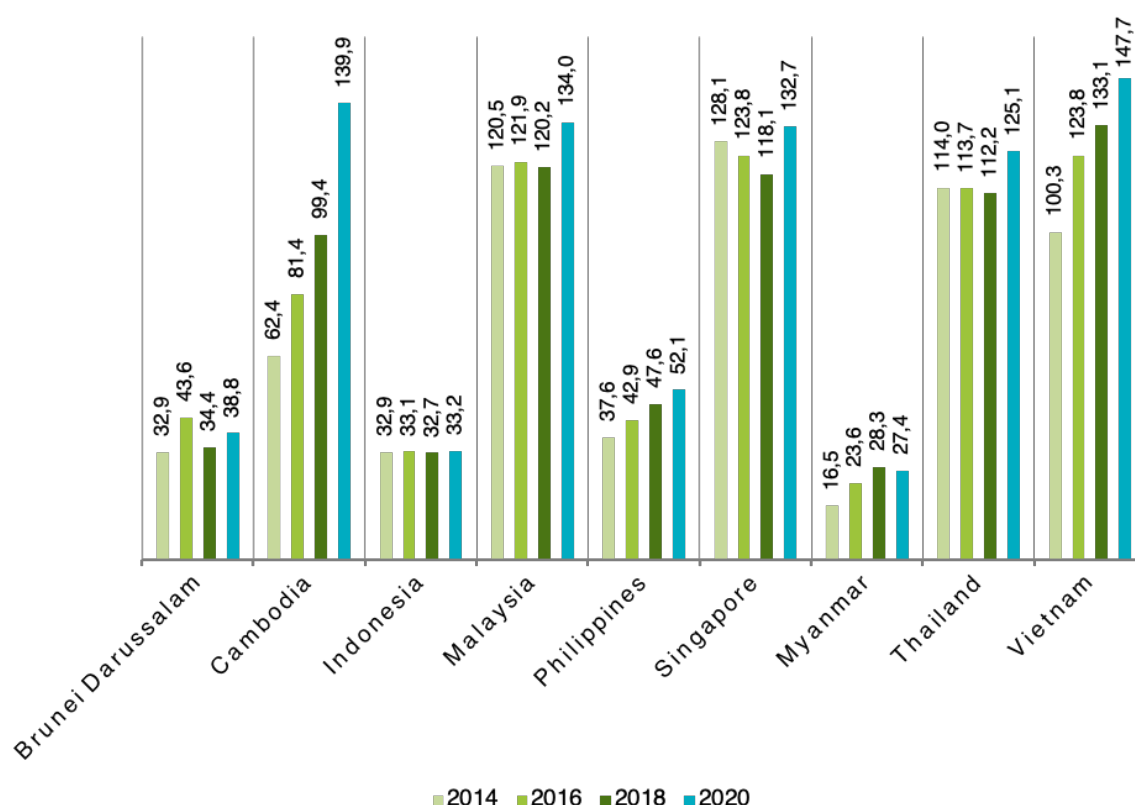
Source: World Bank (2021)

2.5.1 Bank-Backed Financing

The access to bank financing is not uniform across AMS. Countries such as Indonesia, the Philippines, and Myanmar have relatively low domestic credit sizes, while Cambodia, Malaysia, Singapore, Thailand, and Viet Nam have a higher leverage of banking credits (Figure 11). The differences in the level of access and economic development within ASEAN further precipitate the need for a consolidated effort to promote green banking in the region. Financial institutions in ASEAN are generally at the infancy stage of adopting and implementing sustainable practices. Climate disclosures in many AMS are still voluntarily and not part of the regulatory requirement. A clear mandate to manage climate and environment-related risks within the region is yet to be agreed upon. Data availability on the banking sector's green portfolio also remains scarce; thus, it continues to hinder portfolio reallocation decisions and strategies to better align with net-zero pathways.

Private sector financing contributes to 38% of the total climate financing in East Asia and the Pacific. Private funding is mainly raised from domestic sources and distributed through commercial financial institutions. In 2019/2020, direct fundraising by corporations accounts for 75% of the total private contribution for climate financing and 28% of the entire climate change financing in the region. Balance sheet financing accounts for 76% of private financing, while project financing accounts for around 24%. Corporations raise climate financing mainly using equity instruments, whereas commercial financial institutions utilise debt instruments to fund climate change.

Figure 11. Domestic credit to the private sector by banks (% of GDP)



Source: World Bank (2021)

2.5.2 Bond market financing

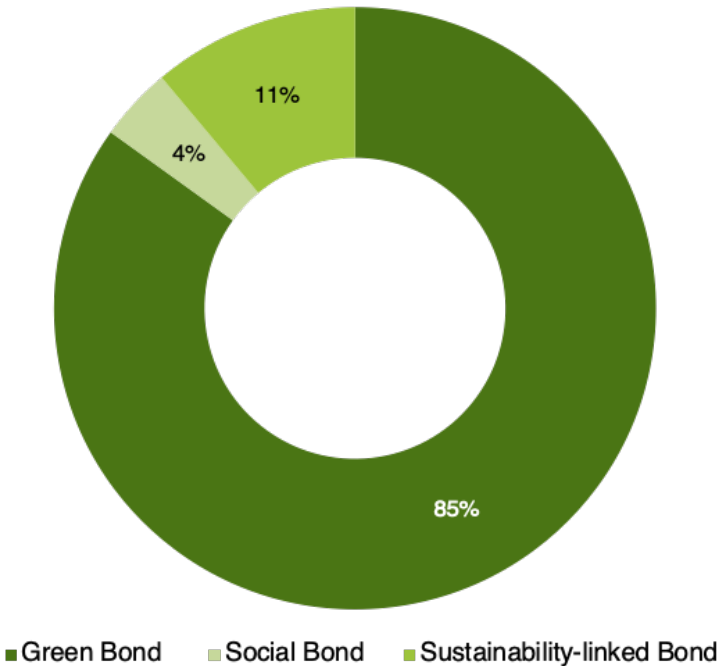
The sustainable bond market continues to grow rapidly, reflecting the ASEAN's enthusiasm to promote long-term, low-carbon and climate-resilient economic growth. The sustainable bond market grew significantly from USD\$ 3.36 billion in 2017 to USD\$ 72.69 billion in 2023, despite challenges posed by pandemic that caused economic disruption and capital market volatility in almost all AMS.

The ASEAN Green Bond Standards (GBS), ASEAN Social Bond Standards (SBS), ASEAN Sustainability Bond Standards (SUS) and ASEAN Sustainability-linked Bond Standards (SLBS) guide AMS regulators on sustainable debt development. These standards align with global principles guided the International Capital Market Association (ICMA) principles. Green bonds account for about 85% of the total sustainable bonds outstanding in 2021 (Figure 12). Before the

COVID-19 pandemic, green bonds accounted for almost the entire share of sustainable bonds in the region. However, since 2020, the corporate sector has seen an upward trend in social and sustainable bond issuances to address post-pandemic financial challenges and expand businesses (Figure 13).

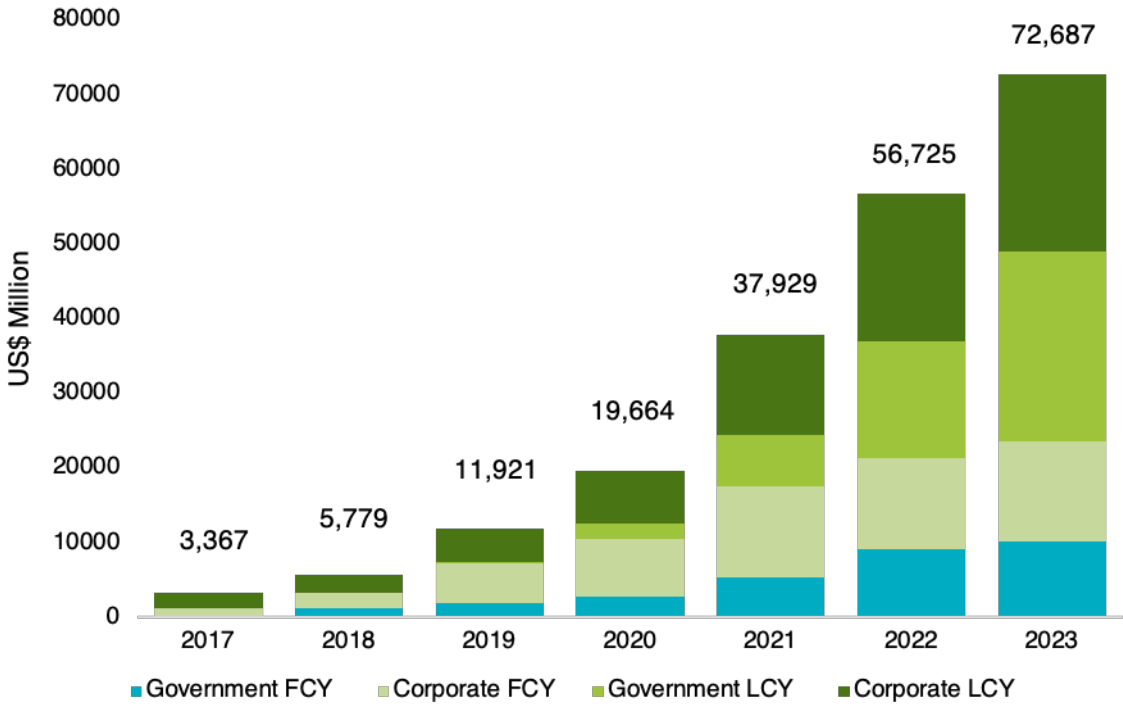
Despite the strong growth of the sustainable bond market in recent years, the total outstanding sustainable bonds only account for about 4% of the total outstanding bond market in ASEAN. Therefore, a more comprehensive and rapid approach is needed to ensure that all AMS have access to the capital market to raise funds for climate change initiatives and achieve NDCs.

Figure 12. Consolidated sustainable bonds outstanding in ASEAN, 2017-2021 (US\$ Million)



Source: Asian Bond Online

Figure 13. Consolidated sustainable bonds outstanding in ASEAN (US\$ Million)



Note: The consolidated absolute outstanding amount of green bonds, social bonds, sustainability bonds, sustainability-linked bonds, and transition bonds. Data is categorized into local currency-denominated bonds (LCY) and foreign currency-denominated bonds (FCY), and government and corporate bonds.

Source: World Bank (2021)

2.5.3 Equity market financing

Market-based financing based on Environment, Social and Governance (ESG) principles has gained traction globally in recent years. Global sustainable investments from five significant markets have increased to 55% in early 2020 compared to 2016, with Assets Under Management totalling up to US\$ 35.3 trillion (Global Sustainable Investment Alliance, 2021). ESG exchange-traded funds (ETFs) show similar trends. This instrument has grown more than six-fold, from less than US\$ 20 billion in 2018 to around US\$ 120 billion in 2021. According to the Bloomberg forecast, ESG ETF is likely to reach between US\$ 700 billion and US\$ 1.1 trillion by 2022-2025.

The supply of sustainable instruments of the equity market in ASEAN is relatively new and emerging. Major ASEAN exchanges offer sustainability-related indexes for investing in socially responsible investments (SRI) that focus on ESG principles. Sustainable reporting is critical in promoting sustainable instruments, and various country-level initiatives and support, including regional capacity-building were provided to improve access to climate finance. Table 1 shows the country-level initiatives and reporting requirements in crucial stock markets in ASEAN. The ASEAN exchanges play an essential role in promoting cooperation and creating investment opportunities among the six exchanges, namely Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam. This initiative also focuses on sustainability and climate change to accelerate real economy investments in sustainability projects in ASEAN.

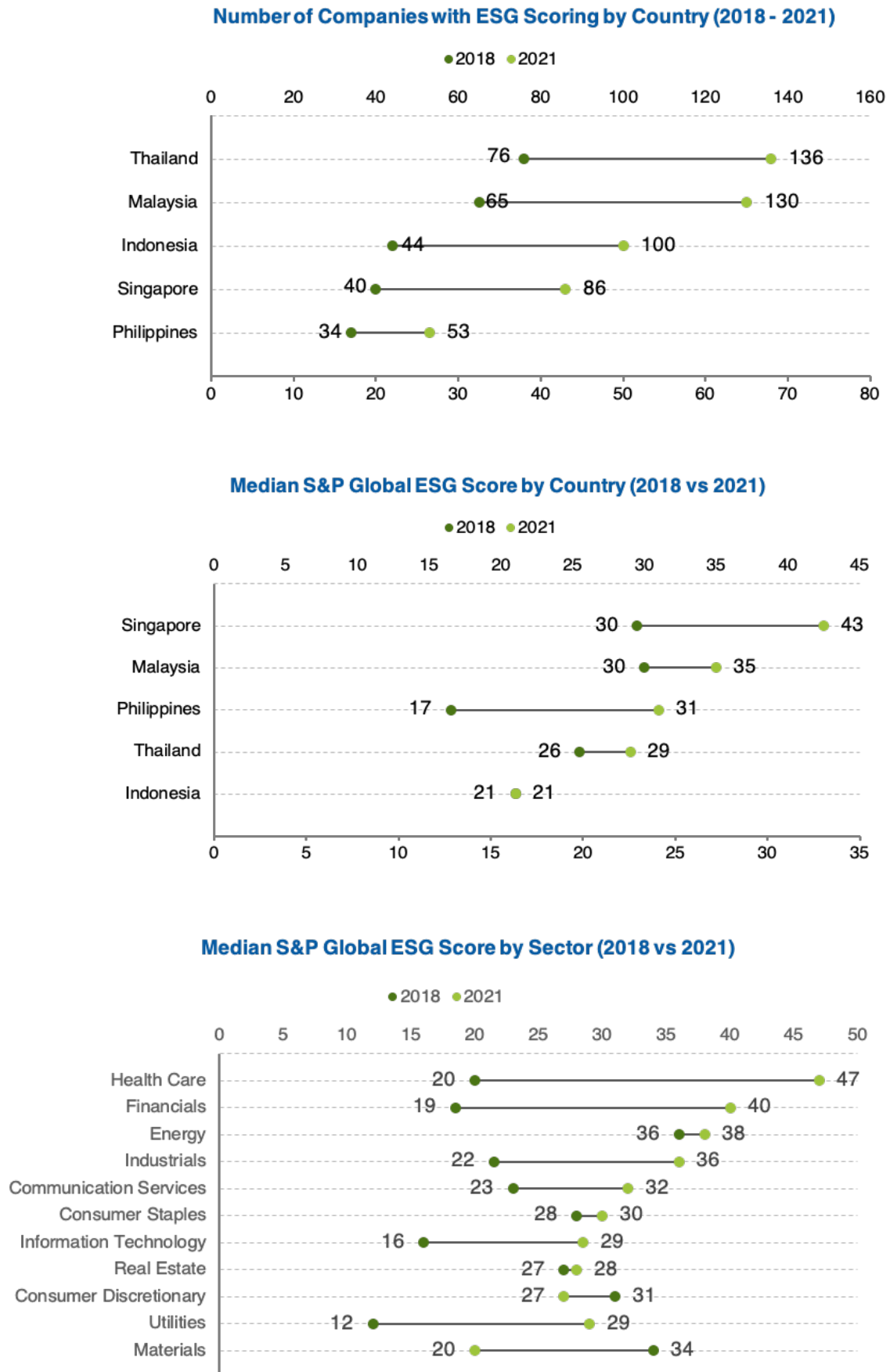
The growing number of listed companies disclosing ESG-related data and being rated by international rating agencies reflects regulators' efforts to promote sustainable finance and raise awareness among corporate sectors. Figure 14 shows listed ASEAN companies with ESG ratings based on the S&P Global ESG Rank. The ESG ratings are based on verified company disclosures, media and stakeholder analysis and S&P's Global Corporate Sustainability Assessment. The number of companies in the assessment metric is increasing across ASEAN with five AMS. Furthermore, the median score is also improving from 2018 to 2021. While Thailand recorded a high adoption rate with the highest number of companies included in ESG scores in 2018, Singapore's median score was higher than its regional peers. Healthcare and finance recorded higher scores among the critical sectors in ASEAN.

Table 1. Initiatives and reporting requirements in major equity markets in ASEAN

	Indonesia	Malaysia	Philippines	Singapore	Thailand	Vietnam	
Members of ASE-AN Exchanges	Indonesia Stock Exchange	Bursa Malaysia	Philippine Stock Exchange	Singapore Exchange	Stock Exchange of Thailand	Hanoi Stock Exchange	Ho Chi Minh Stock Exchange
Market capitalisation of listed domestic companies (% of GDP) in 2020	46.87	129.53	75.46	191.95	108.28	68.60	
Market Capitalisation in USD billion	578.63	414.29	291.47	663.39	600.06	22.40	256.40
Number of Listed Companies	766	947	278	673	778	345	404
Sustainable Stock Exchange Partners	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Annual Sustainability Report	Yes	Yes	Yes	Yes	Yes	No	Yes
Sustainable Reporting Rule Coverage in parenthesis	Mandatory (All)	Mandatory (All Main and ACE Market)	Mandatory (All)	Mandatory (All Main Board and Catalyst Listed Companies)	Mandatory (All)	Mandatory (All)	
ESG Reporting required as Listing Rule	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Guidance on ESG Reporting	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ESG Related Training	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sustainability Bond Listing	Yes	No	No	Yes	No	No	No
Sustainability Related Index	SRI-KEHATI	FTSE4Good Bursa Malaysia	No	iEDGE SG ESG Leaders Index	SETTHSI Index	No	Sustainability Index
Regulated By	Indonesia Financial Services Authority (Otoritas Jasa Keuangan)	Securities Commission Malaysia	Republic of the Philippines Securities and Exchange Commission	Monetary Authority of Singapore	The Securities and Exchange Commission of Thailand (SEC)	State Securities Commission	State Securities Commission

Source: World Bank, Sustainable Stock Exchanges (SSE) Initiatives and ASEAN Exchange

Figure 14. ESG scoring increased across the ASEAN Equity Markets



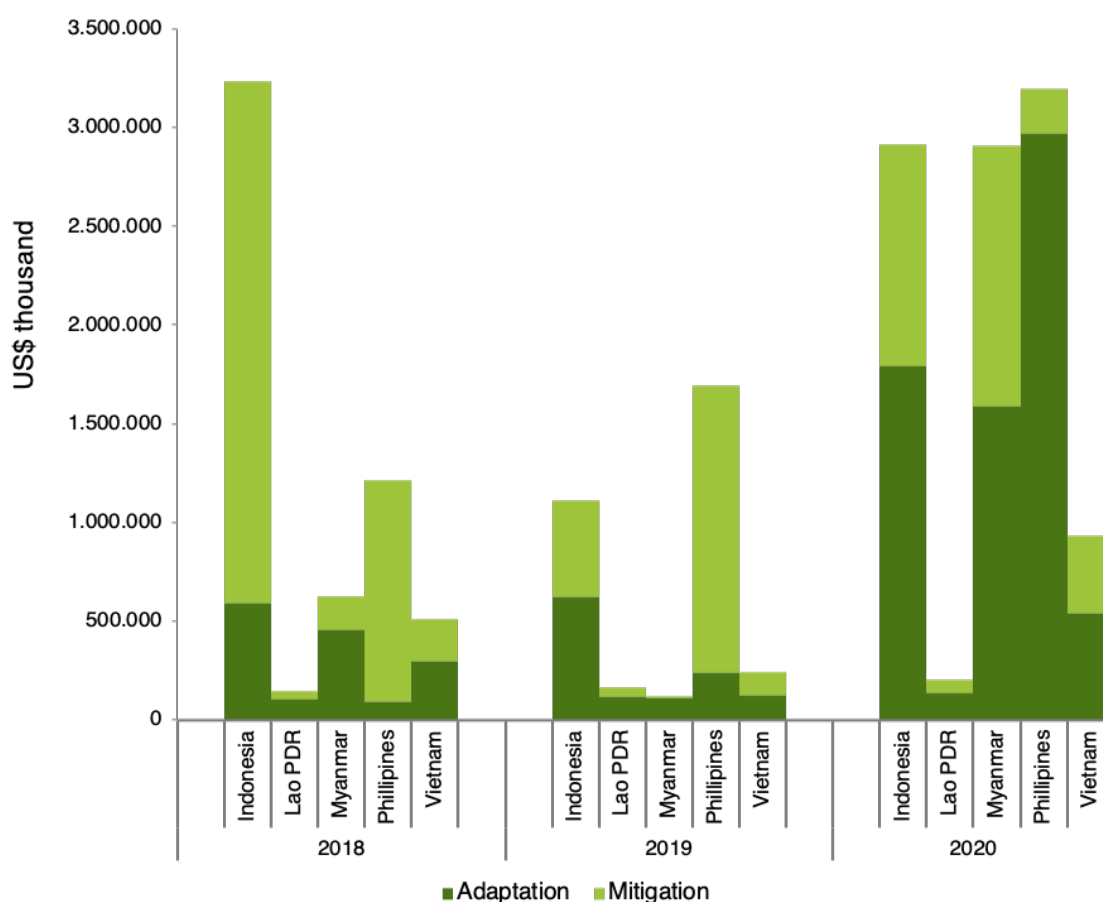
Source: Bloomberg

2.6 Uneven Development and Distribution of Finance Among the AMS

The challenge of mobilising climate capital at scale stems from the current financial system's inability to incorporate climate metrics into its capital allocation and disbursement processes, resulting in uneven distribution of funding among AMS. For instance, the distribution of ODA channelled to AMS has progressed over the years, but the allocation of adaptation and mitigation activities remained unequal (Figure 15). Climate-vulnerable countries struggle to access finance as the path dependency in investment flows further reinforces existing inequalities. Barriers such as unfavourable investment conditions and inconducive financial ecosystems hinder the contribution of funds for adaptation and mitigation actions across countries. At COP 27, a breakthrough agreement was formed to establish new funding arrangements and dedicated funds to improve the adaptive capacity of vulnerable countries.

On average, only 20.5 % of climate-related development finance reported to the OECD was mobilised by the least developed countries, and 3 % by small island developing states in 2017-2018, highlighting the inequities inherent in the climate finance system (Carty, Kowalzig, & Zagema, 2020). Qualifying for climate finance can be a challenge since disparities in standards and inconsistent reporting can hinder the ability of AMS to access such financing. Capacity development to meet the needed qualifying requirements is critical. Beyond assessing climate targets, financing channels and institutional structures also need to be evaluated in terms of their ability to mobilize finance to the AMS. Innovative financial and policy mechanisms should target the evolution of the sector in building an effective climate finance landscape that meets these countries' needs.

Figure 15. Official development assistance for climate in selected AMS, 2019



Source: OECD (2021)

3. Addressing Climate Financing Challenges and Narrowing the Gap

The growing financing gap is alarming and needs to be addressed at the national level and through regional and international contributions. The ASEAN Climate Finance Access and Mobilisation Strategy focuses on the Climate Change Financing Framework (CCFF), a voluntary, whole-of-government process to mobilise, manage, and target climate finance in the region. The CCFF aims to ensure a more cohesive and comprehensive policy approach to incorporate climate financing into the public finance of AMS (UNFCCC, 2023).

To better prepare for this, AMS should consider (1) improving and efficiently manage public financing, (2) de-risk investments, (3) strengthening regulations, (4) addressing data gaps, and (5) building capacities. These initiatives will improve AMS' ability to access finance from international institutions and developed countries, as well as to provide financial and technological expertise that would help ASEAN quickly achieve the Paris Agreement targets. Moreover, achieving the climate goal is only possible with the participation of the private sector. Climate resilience efforts will be in vain if there are insufficient financial resources and a lack of acceptance by the business community and the general society of climate change initiatives. De-risking investments, strengthening regulations, and addressing data gaps can facilitate the participation of financial actors.

3.1 Improve Public Finance and Increase Allocative Efficiency for Post-Pandemic Recovery

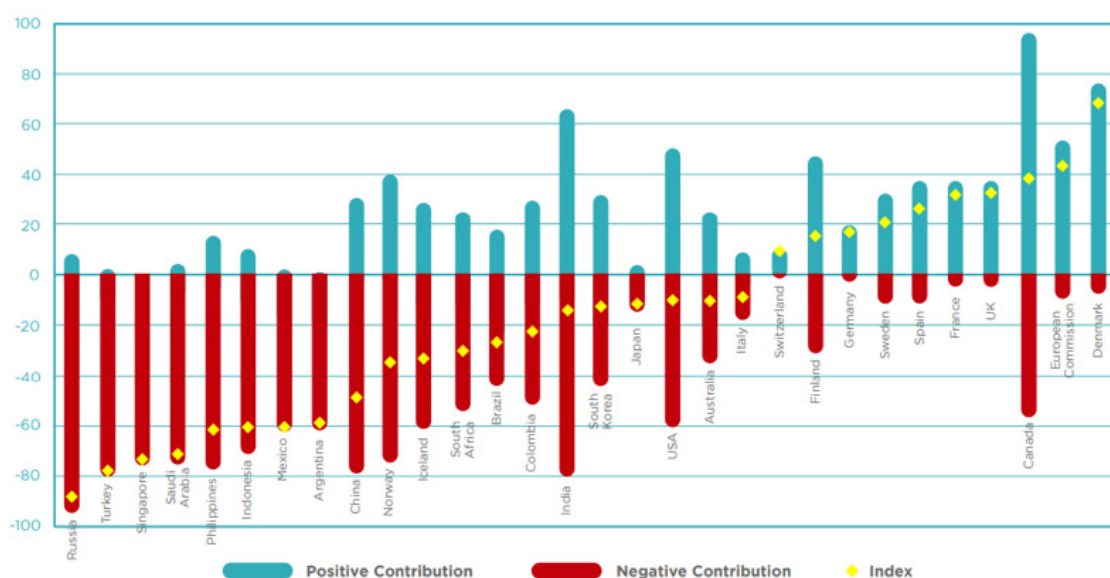
A sharp increase in government spending and a decline in government revenue during the pandemic have led to the rise of government debt to GDP ratio in most ASEAN countries. This ratio is commonly used to compare a country's financial strength, especially in assessing sovereign debt risks. Despite the increase in the debt-to-GDP ratio, rating agencies are keeping the sovereign ratings of most AMS unchanged, except for Malaysia and Laos which downgraded during the pandemic.

The need to restore fiscal discipline and reduce the budgetary buffer could further constrain the government's ability to have considerable purchasing power in the post-pandemic period. A study by Vivid Economics analysed the impact of the stimulus package during the pandemic on climate change and created the Greenness of Stimulus Index. The ongoing debate on the environmental friendliness of the stimulus found that stimulus packages in

most economies missed the opportunity to develop environmentally friendly development initiatives. Of the total US\$ 17.2 trillion announced by the G20 and ten other selected countries in mid-2021, only US\$ 4.8 trillion or 28% has been allocated to environmentally intensive sectors that impact climate change, biodiversity, and air quality (Vivid Economics & Finance of Biodiversity Initiative, 2021).

In ASEAN, stimulus packages amount to about US\$ 5 trillion (as of mid-2021) to protect businesses and support households while less than 1% of the value of the packages targets its spending on low-carbon energy and the development of climate-resilient infrastructure (Ambumozhi, Kalirajan, & Yao, 2022). The environmental and climate change impacts of the stimulus packages are overwhelmingly negative across all AMS represented in the study (Figure 16).

Figure 16. Impact of stimulus on climate change



Source: Vivid Economics

During the emergency phase of COVID-19, the focus is on managing health emergencies and providing safety nets for vulnerable people. Once health risks subside, a sustainable and resilient recovery strategy becomes the priority. This is the core strategy of a phased approach promoted by the ASEAN Comprehensive Recovery Framework (ACRF). With borders reopened and economic and social activities restored to pre-pandemic levels, the current strategy focuses on building a sustainable recovery; public spending prioritises the practice of sustainability, particularly in the construction of infrastructure projects.

AMS development policies should be aligned with NDC goals to ensure the sustainability of the government structure and policies. In addition, AMS also need to identify national and regional development project priorities through socioeconomic and environmental

vulnerability assessment, impact assessment, and other science-and evidence-based tools. A whole-of-government approach is critical to achieve better coordination and harmonisation among ministries and improve the allocation efficiency of government resources. It is essential to align the various funding platforms at the ministerial level with climate goals. Ideally, national budget should take into account sustainability principles by linking the NDC and SDG goals instead of just allocating a dedicated amount for climate change initiatives. While this is only currently feasible some AMS, incorporating NDC and SDG into national budget in stages will help narrow the climate financing gap. A roadmap to align national policies with the NDC and SDG targets should accelerate climate change adaptation and mitigation and pave the way to sustainability.

Infrastructure development is one of ASEAN's key priorities to facilitate the smooth movement of people and goods in the region and strengthen ASEAN's integration under the AEC. Several ongoing initiatives provide financial and technical support to advance the green agenda, including the ASEAN Catalytic Green Finance Facility (ACGF) which aims to develop green infrastructure in the region. Nonetheless, the current rate of urbanisation and growing economic development in the AMS signal an urgent need for infrastructure development. According to an analysis by the EU-ASEAN Business Council, the infrastructure investment gap is estimated to reach US\$ 92 billion per year by 2030 (EU-ASEAN Business Council, 2020).

Public-private partnerships are also critical for green infrastructure development and could close the infrastructure investment gap. The government should leverage the current trend toward green infrastructure through de-risking instruments and increase the use of transaction-enabling instruments to mobilise

private investment. De-risking mechanisms involve the direct and indirect use of public funds and result in tax expenditures or contingent liabilities for the government. The public sector can deploy capital during the life cycle of a project with a high-risk profile and unsuitable for private investment. Risk mitigation tools include, but are not limited to concessional loans, guarantees, rebates, tax credits, liquidity facilities, co-investments, cornerstone investments, subordinated equity or debt, nature-based solutions, locally led adaptation and 'blue economy' programmes, insurance mechanisms and many other innovative structures. These tools can be used to manage a range of risks including credit, liquidity, counterparty, commercial and political risks. The development of innovative financing mechanisms and the role of national development banks and financial institutions in financing projects and programmes with significant mitigation and adaptation potential is critical for climate financing.

The green taxonomy serves as a guide in aligning climate assets and projects. It is a tool for governments, issuers, and investors to help them understand the critical investments leading to a low-carbon economy. The development of taxonomies at the national or regional level is encouraged to identify, assess and manage the risks associated with the organisation or its activities. It also aids in understanding risk disparities between assets, mobilizing capital for low-carbon investments, and enhancing transparency in an economy's transition to a low-carbon economy. While each central bank's experience in developing taxonomies varies, ASEAN has jointly issued the ASEAN Standards for Sustainable Labelled Bonds and the ASEAN Taxonomy for Sustainable Finance (ASEAN Taxonomy Board, 2021). The ASEAN standards provide a starting point for classifying green activities by providing a list of ten broad categories for green project eligibility. The ASEAN Taxonomy for Sustainable Finance is a joint initiative of ASEAN finance bodies. With six guiding principles, the regional

taxonomy serves as ASEAN's common language for sustainable finance while complementing the national initiatives of member states. The taxonomy helps create a standard or guide for AMS to define economic activities considered "sustainable" in the region. The existence of a taxonomy that is aligned with international standards can help promote the necessary sustainable and climate-related investments needed by the AMS, not only in terms of domestic capital but also foreign capital.

Currently, several central banks in ASEAN require reporting on environmental activities (Table 2). Only a few central banks in the region have already developed a broad set of definitions and their national taxonomy aligned with the ASEAN taxonomy, while others are still in the exploratory or consultative stages. Several central banks in the AMS announced various initiatives to promote green finance with definitions based on each country's sectoral priorities and the level of financial development.

These taxonomies serve as a guide for stakeholders to integrate climate action into their operations and regulatory basis for supporting climate finance for private sector participation. Standardisation of definitions and harmonisation of regulations will increase ASEAN's competitiveness in raising capital and accelerate compliance readiness, especially in low-income AMS. This will improve access to finance and reduce the uneven development of financial and capital markets in the region which is a significant barrier to inclusive access to capital in ASEAN.

ASEAN central banks and capital market regulators should work on a common platform to discuss and share their experiences, focusing on each country's

efforts in 'greening' its banking sector and capital market portfolios. Existing guidelines on labelled bonds and the ASEAN taxonomy are encouraging, and further harmonisation of climate finance will strengthen the case for robust ASEAN integration. Standard guidelines for financial instruments and the standardisation of disclosure requirements should minimise differences among AMS to facilitate capital mobility within ASEAN. Stress testing and scenario analysis at central banks are becoming more common in assessing climate risks to the financial sector. Those who are already leading the way can support and work with other counterparts to help them catch up and meet climate finance requirements.

The ATB released the ASEAN Taxonomy for Sustainable Finance Version 2 in 2023. The first version laid out the broad framework of the ASEAN Taxonomy, Version 2 consists of the (a) complete Foundation Framework comprising detailed methodologies for assessing economic activities; and (b) Technical Screening Criteria (TSC) for the first focus sector i.e. Electricity, Gas, Steam and Air Conditioning Supply sector (Energy sector) under the Plus Standard.

Table 2. Climate change efforts by ASEAN Central Banks and other regulators

Regulators	Central Bank Efforts	Remarks	Targets / Deadlines	Member of NGFS?	Participation
Singapore Monetary Authority of Singapore (MAS)	Green Finance Industry Taskforce (GFIT) May 2020 Singapore-Asia Taxonomy for Sustainable Finance (Singapore-Asia Taxonomy) December 2023	GFIT is a detailed implementation guide for climate-related disclosures by financial institutions; a framework to help banks assess eligible green trade finance transactions; and a whitepaper on scaling green finance in the real estate, infrastructure, fund management and transition sectors. The Taxonomy sets out detailed thresholds and criteria for defining green and transition activities that contribute to climate change mitigation across eight focus sectors.	Updated: peak emissions at 65 MtCO ₂ e (million tonnes of carbon dioxide equivalent) by 2030, and halved emissions from its peak to 33 MtCO ₂ e by 2050.	Yes	Active Participation
Malaysia Bank Negara Malaysia (BNM)	Climate Change and Principle-based Taxonomy (CCPT) April 2021 Task Force on Climate-related Financial Disclosures ("TCFD") Application Guide for Malaysian Financial Institutions (updating the Guide to consider the International Sustainability Standards Board (ISSB) IFRS S1 and IFRS S2 disclosure standards.)	CCPT aims to guide financial institutions in identifying and classifying economic activities that could contribute to climate change mitigation and adaptation (guiding principles). TCFD offers recommendations and guidance to promote adoption among Malaysian banks, insurers, takaful operators, and asset managers/owners. Implementation involves two phases: Basic (within 24 months) and Stretch (based on climate risk exposure and operational complexity).	Updated: reduce the greenhouse gas (GHG) emission intensity by 45 per cent across the economy (based on the Gross Domestic Product) by 2030 and aspire to achieve net zero GHG emissions as early as 2050.	Yes	Active Participation

Regulators	Central Bank Efforts	Remarks	Targets / Deadlines	Member of NGFS?	Participation
Thailand Bank of Thailand/ Thai Bankers Association	Sustainable Finance Initiatives (SFI) August 2021 Sustainable Banking Guidelines - Responsible Lending - Launched by Thai Bankers Association November 2019 Directional Paper on “Transitioning towards environmental sustainability under the new Thai financial landscape”	SFI aims to set the direction and framework for driving sustainable finance (including green financing) across the financial sector. Sustainable Banking Guidelines steer the Thai financial sector towards more sustainable practices This Directional Paper set out the strategic direction for every sector to accelerate their transition and to develop the necessary infrastructure to adapt to environmental changes	Updated: reduce greenhouse gas emissions by 20% compared to the business-as-usual (BAU) trajectory by 2030, with further reductions up to a possible 40% if financial and technological support are provided. Pledged to reach carbon neutrality by 2050 and to achieve net-zero GHG emissions by 2065.	Yes	Fairly Active
Indonesia Bank Indonesia/ Financial Services Authority (OJK)	Bank Indonesia issued Green Lending Model Guidelines OJK Green Finance Taxonomy January 2022	OJK taxonomy describes terms to determine how environmentally damaging business operations are in Indonesia. Classification based on 3 tiers: a. green - operations that protect or improve environment. b. yellow - do not significantly harm. c. red - harmful Green Taxonomy is expected to help the periodic monitoring process in the implementation of credit/financing/investment in the green sector and prevent the potential reporting of green activities (greenwashing).	Updated: Reduce greenhouse gas (GHG) emissions to 29% below business-as-usual by 2030 or a 41% reduction target if there is international financial support. Plans to peak GHG emissions in 2030 and this could reach net-zero GHG emissions by 2060 or sooner.	Yes	Fairly Active
Philippines Bangko Sentral ng Pilipinas (BSP)	Sustainable Financial Framework April 2020. Philippine Sustainable Finance Roadmap and Guiding Principles	Banks must integrate sustainability principles into their corporate governance, risk management, and strategic objectives, aligning with their size and operational complexity. The framework mandates the establishment of an Environmental and Social Risk Management System (ESRMS) and sets a three-year compliance period. The Roadmap lays the groundwork for sustainable finance strategies, while the Guiding Principles establish a shared understanding of sustainable activities.	A 75% reduction on greenhouse gas emissions by 2030, 72.29% is conditional on climate finance support, technologies and capacity development provided by developed countries.	Yes	Active Participation
Brunei Darussalam National Council on Climate Change	National Climate Change Policy July 2020	BNCCP was developed using a Whole-of-Nation approach to strategically govern and monitor GHG emissions and strengthen climate-resilience. 10 core national strategies were identified and these strategies are to be achieved in line with Wawasan Brunei 2035.	Reduction in greenhouse gas (GHG) emissions by 20% relative to Business-As-Usual levels by 2030.	No	Slow Progress

Regulators	Central Bank Efforts	Remarks	Targets / Deadlines	Member of NGFS?	Participation
Vietnam State Bank of Vietnam (SBV)	Directive on Promoting Green Credit Growth and Environmental and Social Risks Management in Credit Granting Activities March 2015.	The Directive promotes a green economy and urges all credit institutions to integrate environmental and social (E&S) risks into their transactions. It includes a reporting template mandating quarterly quantitative data submission to the SBV.	Updated: Reduce greenhouse gas (GHG) emissions by 9% with domestic resources and 27% with international support by 2030. Aspires to achieve net zero GHG emissions as early as 2050.	No	Fairly Active
	Green Bank Development Scheme August 2018	The scheme aims to foster green banking and boost credit extension to green projects in Vietnam. Banks are mandated to establish internal regulations on E&S risk management and conduct credit risk assessments in lending activities by 2025.			
	Action Plan for the banking sector July 2023	This Action Plan is aimed at providing guidance for the organization and the implementation of the government's decisions on green growth for the 2021-2030 period.			
Cambodia National Bank of Cambodia Association of Banks in Cambodia	Cambodian Sustainable Finance Initiative (CSFI)/ Sustainable Finance Principles September 2016/Revised 2019	These Implementation Guidelines provide a foundation for Cambodian banks and micro-finance institutions (MFIs) to develop sustainable finance approaches aligned with the Cambodian Sustainable Finance Principles.	Updated: reducing greenhouse gases by 41.7% by 2030 compared to business as usual. The country has set an ambitious target to halve the deforestation rate by 2030.	Yes	Slow Progress
Lao PDR Bank of the Lao P.D.R. (BOL)	National Strategy on Climate Change (NCCS) (2010) Decree on Climate Change (2019)	The decree determines the principles, regulations and measures on the management, monitoring and inspection of tasks related with climate change.	Updated: reduction target of 60% by 2030. Introduced three national level greenhouse gas (GHG) emission scenarios: baseline emission scenario, unconditional mitigation scenario to 2030 and a more ambitious conditional mitigation scenario to 2030 towards achieving net zero GHG emissions by 2050.	No	Slow Progress
Myanmar Central Bank of Myanmar (CBM)	Myanmar Climate Change Policy (2019)	Guiding policy and strategic framework to ensure coordinated and sustained action over the long term to transform into a low-carbon and resilient country which is able to develop in a sustainable manner.	Updated: Reduction of 244.52 million tCO _{2e} unconditionally, and a total of 414.75 million tCO _{2e} , subject to conditions of international finance and technical support. by 2030.	No	Slow Progress

Source: Author

Note: BOL and CBM are currently studying the potential financial stability risks and transmission channels associated with environmental issues. TCFD has been disbanded in 2023.

Data is the key to climate finance. However, significant data gaps make it difficult to review ongoing initiatives and proposals that assess climate-related risks to the financial system. Diagnostic and policy tools still need to be sufficiently developed to provide a clear view of risks and precise policy direction. Indeed, the ASEAN Member States are committed to developing a more meaningful approach to harmonizing, measuring and reporting climate change data to inform policy-making processes. This warrants a call to understand the region's progress, challenges and opportunities for data management. Although data and information on the status of climate change in individual countries have evolved, coordinated efforts at the ASEAN level to collect, consolidate, and synthesise climate change data need more attention.

Data collection remains a key challenge in many AMS, mainly due to the distribution of power within the country (provincial, state and federal), resulting in unnecessary delays in data collection processes. It is imperative to address and coordinate data collection efforts among regulators and government agencies involved. Artificial intelligence (AI) and blockchain technology can be deployed to further enhance data collection and data sharing mechanism using both, structured and unstructured forms of data.

The increasing demand for reliable green data, the complexities surrounding the measurement and the growing concern for mislabelling and greenwashing, underscores the necessity for enhanced governance in data management and monitoring. Access to data can be costly, especially for retail investors. Therefore, establishing a common platform that features climate finance data of ASEAN companies will be beneficial for investors to make informed investment decisions. ASEAN Exchanges (AE) provide investment tools such as broker reports and financial data that ASEAN investors can access to make financial decisions. Additionally, AE could provide sustainability or ESG databases collected by AMS. Transparency and data availability can enhance access to climate financing. Several central banks are working to collect data based on the Task Force on Climate-related Financial Disclosure (TCFD) framework and IFRS Sustainability Disclosure Standards by International Sustainability Standards Board (ISSB). The data collected through these frameworks will allow central banks to conduct climate-based stress tests for capital assessments based on externalities and climate risks .

ASEAN continues to strengthen its capacity-building role to support AMS in accessing climate finance. The ASEAN State of Climate Change Report (ASCCR) underscores the need to enhance the capacity of all AMS. This includes a two-pronged approach, that is, engaging designated national think tanks and focal points (NFPs) and holding a series of three regional consultation meetings to formulate methodology and frameworks, prioritise climate actions based on commonalities and differences among AMS and improve transparency in the region to achieve more ambitious adaptation and mitigation actions (ASEAN Secretariat, 2021). ASEAN's capacity-building efforts to promote climate finance should not only target the public sector but must include all relevant partners in the climate finance value chain. Organizing a dialogue session with the private sector is essential to understand the enablers for active private sector participation, identify key drivers for successful capital markets in the region, barriers to leveraging private capital, and required policy interventions to support climate financing. Moreover, capacity building should also involve intermediaries in the region, i.e. banks, insurance companies and asset managers to have a common platform for discussions and exchange of ideas to promote green assets in ASEAN.

Building talent and meeting data requirements are critical factors in improving access to finance. ACBs and regulators can collaborate on training activities to enhance networking and knowledge sharing among AMS. In addition to knowledge transfer within AMS, MDBs and the international community

can also support AMS in building infrastructure and expertise to improve access to climate finance. MDB technical assistance and climate finance are instrumental in accelerating the implementation of the Paris Agreement. MDBs can support AMS in accessing capital markets for climate finance by developing cost-effective financial instruments and align them with future liabilities. MDBs can also develop innovative instruments to improve access to climate finance.

Technical assistance and support in developing a well-functioning financial sector in developing countries could reduce dependence on foreign aid and increase the pace of climate action. More importantly, cross-sectorial collaboration and initiatives in capacity building are critical given that policies and initiatives are cross-cutting and require close engagements from various working groups within ASEAN. To promote innovative policy thinking and design, policymakers should be trained to use tools such as design thinking and behavioural insights to address complex environmental problems.

To improve access to climate financing, ASEAN should regularly update climate action plans and strengthen risk reduction measures, in line with international communities' funding trends and prioritisation areas. Building capacity on scanning the latest information and financing availability would position AMS to leverage and utilise the financing opportunities.

The requirements in IFRS S2 are consistent with the four core recommendations and eleven recommended disclosures published by the TCFD.

4. Conclusion

Climate action requires a significant financial investment that can be channelled into cleaner economic activities that can mitigate the impacts of climate change. Public and private financing, along with alternative sources, play a critical role in climate mitigation and adaptation efforts, as large investments are needed in sectors that emit significant amounts of greenhouse gases and to protect the environment from climate risks. It is essential to align the various financing instruments and platforms with climate goals. A better understanding of the link between financial systems and the current and future climate action should be established to facilitate access to climate finance and redirect funds to support the transition to climate neutrality and resilience.

While public finance still has a pivotal role as a leading contributor to climate financing, attracting private capital is critical as public finance and international grants alone are inadequate to meet financing needs. De-risking instruments will allow the public sector to focus on a high-risk portion of the project lifecycle and for crowding in private investment. Private sector obligation for climate financing should not only be limited to Corporate Social Responsibility (CSR). Instead, it should be proactive in transforming traditional business models to a balanced business approach - between the people, planet and prosperity. The role of private capital in climate financing is still low and uneven in ASEAN. It remains dependent on the state of banking, insurance and capital market development of the AMS.

Even with substantial progress, several impediments hinder the role of financial markets in facilitating an orderly transition to low-carbon economies. There is a need for more data and tracking mechanisms to ensure companies commit to and follow up on their transition plans. The presence of established frameworks helps market participants make sense of stranded assets, transition plans, opportunities and policy developments to price transition risk into asset valuations efficiently. Reducing uncertainties and inefficiencies can lower the cost of capital and increase asset valuations, thereby providing the right incentives for sustainable finance to flow to firms committed to the transition, including those currently high carbon emitters.

References

- Ambumozhi, V., Kalirajan, K., & Yao, X. (Eds.). (2022). *Rethinking Asia's Low-Carbon Growth in the Post-Covid World: Towards a net-zero economy*. Jakarta: Economic Research Institute for ASEAN and East Asia (ERIA). Retrieved from <https://www.eria.org/publications/rethinking-asias-low-carbon-growth-in-the-post-covid-world-towards-a-net-zero-economy/>
- AON. (2021, January 25). *Aon Finda Climate-Influenced Weather is Key Driver of \$268B Global Damage from 2020 Natural Disasters with 64% Uninsured*. Retrieved from AON: <https://aon.mediaroom.com/2021-01-25-Aon-finds-climate-influenced-weather-is-key-driver-of-268B-global-damage-from-2020-natural-disasters-with-64-uninsured#:~:text=The%20report%20reveals%20that%20the,an%20increase%20in%20global%20wealth.>
- ASEAN Secretariat. (2021). *ASEAN State of Climate Change Report*. Jakarta: ASEAN Secretariat. Retrieved from https://asean.org/wp-content/uploads/2021/10/ASCCR-e-publication-Correction_8-June.pdf
- ASEAN Taxonomy Board. (2021). *ASEAN Taxonomy for Sustainable Finance*. ASEAN Taxonomy Board. Retrieved from <https://asean.org/book/asean-taxonomy-for-sustainable-finance/>
- Asian Development Bank. (2019). *ASEAN Green Recovery Platform*. Retrieved from Asian Development Bank: <https://www.adb.org/sites/default/files/page/555651/asean-green-recovery-platform-flyer.pdf>
- Asian Development Bank. (2021, November 2). *Launch and Announcement of Support: ASEAN Green Recovery Platform* - Masatsugu Asakawa. Retrieved from Asian Development Bank - Speeches: <https://www.adb.org/news/speeches/launch-support-asean-green-recovery-platform-masatsugu-asakawa>
- Asian Development Bank. (2022). *ASEAN Catalytic Green Finance Facility 2021: Financing for a green recovery in Southeast Asia*. Metro Manila: Asian Development Bank. Retrieved from <https://www.adb.org/documents/asean-catalytic-green-finance-facility-2021>
- Carty, T., Kowalzig, J., & Zagama, B. (2020). *Climate Finance Shadow Report 2020. OXFAM International*. Retrieved from <https://www.oxfam.org/en/research/climate-finance-shadow-report-2020>
- CEIC. (n.d.). *Tax Revenue*. Retrieved from <https://www.ceicdata.com/en/indicator/tax-revenue>
- Climate Policy Initiative. (2023). *Global Landscape of Climate Finance 2023*. Climate Policy Initiative. Retrieved from <https://www.climatepolicyinitiative.org/wp-content/uploads/2023/11/Global-Landscape-of-Climate-Finance-2023.pdf>
- EU-ASEAN Business Council. (2020). *Bridging the Gap: Funding of Sustainable Infrastructure in ASEAN*. Jakarta: EU-ASEAN Business Council. Retrieved from <https://www.eu-asean.eu/wp-content/uploads/2022/02/Bridging-the-Gap-Funding-of-Sustainable-Infrastructure-in-ASEAN-2020.pdf>
- Global Sustainable Investment Alliance. (2021). *Global Sustainable Investment Review 2020*. Global Sustainable Investment Alliance. Retrieved from <https://www.gsi-alliance.org/trends-report-2020/>
- IPCC. (2022). *Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. (H. O. Portner, D. C. Roberts, M. M. Tignor, E. Poloczanska, K. Mintenbeck, A. Alegria, . . . B. Rama, Eds.) Cambridge, UK and New York, NY, USA: Cambridge University Press.
- Junquera-Varela, R. F., & Haven, B. (2018, December 18). *Getting to 15 Percent: Addressing the Largest Tax Gaps*. Retrieved from World Bank Blogs: <https://blogs.worldbank.org/governance/getting-15-percent-addressing-largest-tax-gaps>
- OECD. (2021). *Climate Finance Provided and Mobilised by Developed Countries: Aggregate Trends Updated with 2019 data, Climate Finance and the USD 100 Billion Goal*. Paris: OECD Publishing. doi:<https://doi.org/10.1787/03590fb7-en>.
- OECD (2023), *Climate Finance Provided and Mobilised by Developed Countries in 2013-2021: Aggregate Trends and Opportunities for Scaling Up Adaptation and Mobilised Private Finance, Climate Finance and the USD 100 Billion Goal*. Paris: OECD Publishing. <https://doi.org/10.1787/e20d2bc7-en>.
- SEADRIF. (2018, December 18). *ASEAN Asia First Regional Climate Disaster Risk Financing Facility*. Retrieved from SEADRIF: <https://seadrif.org/news/asean-asia-first-regional-climate-disaster-risk-financing-facility/>
- The General Secretariat of the National Council for Sustainable Development/Ministry of Environment, Kingdom of Cambodia. (2020). *Cambodia's Updated Nationally Determined Contribution*. Phnom Penh: The General Secretariat of the National Council for Sustainable Development/Ministry of Environment, Kingdom of Cambodia. Retrieved from https://unfccc.int/sites/default/files/NDC/2022-06/20201231_NDC_Update_Cambodia.pdf
- UN ESCAP. (2018). *Tax Policy for Sustainable Development in Asia and the Pacific. Bangkok: United Nations*. Retrieved from ESCAP Financing for Development Series No. 2: <https://www.unescap.org/publications/tax-policy-sustainable-development-asia-and-pacific>
- UNEP Finance Initiative. (2019). *UNEP FI Annual Overview 07/2018-06/2019*. Geneva: UNEP FI. Retrieved from <https://www.unepfi.org/wordpress/wp-content/uploads/2021/04/UNEP-FI-Annual-Overview-2019-.pdf>
- UNFCCC. (2019). *Fourth Biennial Reports - Annex I*. Bonn: UNFCCC. Retrieved from <https://unfccc.int/BR4>
- UNFCCC. (2021). *Technical Assessment of Climate Finance in South-East Asia*. Bonn: UNFCCC. Retrieved from https://unfccc.int/sites/default/files/resource/J0008_UNFCCC_NBF_TA_Climate_Finance_SEA_Web_v17.pdf
- UNFCCC. (2023). *Guidebook on How to Access Climate Finance for Member States of the Association of Southeast Asian Nations*. Bonn: UNFCCC Secretariat. Retrieved from https://www.undp.org/sites/g/files/zskgke326/files/2023-03/J0008_UNFCCC_NBF_ASEAN_Guidebook_FINAL_AW_digital.pdf
- Vivid Economics & Finance of Biodiversity Initiative. (2021). *Greenness of Stimulus Index*. London: Vivid Economics. Retrieved from https://www.vivideconomics.com/wp-content/uploads/2021/07/Green-Stimulus-Index-6th-Edition_final-report.pdf

The ASEAN Secretariat
ASEAN Socio-Cultural Community (ASCC) Department
Jalan Sisingamangaraja 70A
Jakarta 12110, Indonesia

www.asean.org



asean



the-asean-secretariat