ASEAN Insurance Pulse 2022

An Annual Market Survey

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PIAM

Prepared by
Faber Consulting AG

ASEAN Insurance Pulse 2022

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Disclaimer: The published views expressed by the executives participating in this research are not necessarily those of their respective organizations.

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Foreword Malaysian Re

In December 2021 Malaysia was hit by the Great Malaysian Flood (GMF 2021), the most deadly and expensive natural catastrophe in its history. Devastations from GMF 2021 caused more than RM6 billion economic losses with the insured losses reaching over RM2 billion, of which half a billion Ringgit was Malaysian Re's share of losses. Also in December, the Philippines and Vietnam were struck by Typhoon Rai and in September this year again by Typhoon Noru, both tropical cyclones topping each other with record windspeeds of more than 250 km/h. Meanwhile across the region and in South Asia, we experience more and more devastating rainfalls during monsoon seasons. Nature seems to be in disarray as we all realize that climate change is taking its toll.

The ASEAN countries all committed to the Paris agreement, which they signed following the COP 21 in 2015 in the conviction to avert a further rise in global temperature beyond the 1.5 Celsius threshold. The commitment of our countries will require a massive revamp of our economies as we thrive for a business model less reliant on carbon emissions. In facilitating this transition, the insurance industry will play a key role as we can set an example and exert a significant influence on the economy through our investment and underwriting portfolios.

While supporting the decarbonization of our economies, insurers across the ASEAN region set themselves targets to contribute to lower or even to «zero-carbon» emissions and to better understand, manage and stress-test their exposure towards climate risks – a trend strongly encouraged by regulators. The basis for this development is the Environmental, Social and Governance framework – in short ESG – which has gained momentum in recent years and turned into a governance standard by which corporations measure and report their impact on climate risk, but also demonstrate social responsibility and transparent business practices.

As Malaysian Re we were keen to learn and demonstrate our industry's contribution and preparedness to managing climate risks, not only as experts in risk management and transfer, but also as corporate citizens. This year's *ASEAN Insurance Pulse* is thus dedicated to the decarbonization of our economy and the role of ESG from the perspective of the ASEAN insurance industry.

In this regard, we once again would like to record our deepest appreciation to the industry leaders who participated in the survey as their invaluable input enabled our researchers from Faber Consulting to perform independent and comprehensive assessments which you will find in this publication to be refreshingly distinct.

We are also grateful to Bank Negara Malaysia, Malaysian General Insurance Association (PIAM), ASEAN Insurance Council and respective insurance associations of ASEAN countries for the steadfast support of the initiative.

We hope that you will enjoy reading the Pulse and we look forward to your feedback.

Zainudin Ishak
President & Chief Executive Officer

Foreword Faber Consulting

We are pleased to present the 6th edition of *ASEAN Insurance Pulse*. This year's edition focuses on the decarbonization of ASEAN economies and its implications for the insurance industry.

All ASEAN countries are signatories to the Paris Agreement and have committed to reduce their CO_2 emissions to limit the rise of the global temperature to 1.5 Celsius above pre-industrial levels. Most ASEAN countries have announced that they will reduce their greenhouse gas emissions by 20 % to 70 % by 2030 compared to the business-as-usual scenario.

To achieve their targets, ASEAN countries need to reduce emissions from fossil fuel production and consumption, curb polluting activities and transition their economies to a less carbon intensive business model.

This year's edition of *ASEAN Insurance Pulse* highlights the contribution of the insurance industry to climate adaptation and resilience building. Due to its functions as risk managers, risk takers and investors, the insurance industry plays a prominent role in promoting climate action, which can range from its own asset management and underwriting to supporting clean technologies and changes in its own operations. The supervisory authorities in the ASEAN countries encourage the industry to measure and stress-test their climate risks and to actively contribute to the economy's conversion.

The *ASEAN Insurance Pulse* draws once again on diligent market research as well as in-depth interviews with senior executives from national, regional and international insurance and reinsurance companies, intermediaries and trade associations operating in the ASEAN region. Our qualitative interviews, the familiarity with the industry and its drivers allowed us to identify the main challenges and opportunities that the ASEAN insurers face while building a climate-resilient or ESG-compliant investment strategy and report on it transparently.

Now for the sixth time, Malaysian Re has been the indispensable partner of this publication. Through the continued support of the *ASEAN Insurance Pulse* Malaysian Re demonstrates its commitment to the ASEAN insurance community and to advancing the regional markets. We would like to extend our deepest thanks to Malaysian Re for once again enabling this research project, which is designed to benefit the ASEAN insurance market as a whole.

Finally, our gratitude goes to our interviewees, the many insurers, brokers and members of associations that have shared once again their expertise and opinion so openly with us.

We hope that you will enjoy reading the sixths edition of *ASEAN Insurance Pulse* and consider its findings useful.

Henner Alms
Chairman and Partner
Faber Consulting

Andreas Bollmann
Partner
Faber Consulting

Methodology

The findings of this report are based on structured interviews with executives representing 24 regional and international (re)insurance companies, intermediaries, policy makers and trade associations. The interviews were conducted by Faber Consulting, a Zurich-based research, communication and business development consultancy, from July to October 2022. Interviewees belong to the regional network of Faber Consulting or were recommended by Malaysian Re. In addition, the General Insurance Association of Malaysia (PIAM) encouraged their members to support this research. We would like to thank the following organisations for sharing their insights with us:

— AIG, Malaysia
— Allianz Ayudhya Assurance
— AM Best
— ASEAN Insurance Council
— Berjaya Sompo Insurance Berhad, Malaysia
— BIDV Insurance Corporation, Vietnam
— Campu Lonpac Insurance, Cambodia
— Gallagher Re, Malaysia
— General Insurance Association of Malaysia (PIAM), Malaysia
— Great Eastern General Insurance Indonesia, Indonesia
— Great Eastern General Insurance (Malaysia) Berhad, Malaysia
— Malaysian Re, Malaysia
— MSIG Insurance (Malaysia) Bhd, Malaysia
— Myanma Insurance Company, Myanmar
— Myanmar Insurance Association, Myanmar
— National Insurance Company, Brunei
— National Reinsurance Corporation of the Philippines, Philippines
— Progressive Insurance Berhad
— Swiss Re, Malaysia
— Takaful Brunei Darussalam Sdn Bhd
— The Great Eastern Life Assurance Co Ltd
— Tokio Marine Kiln
— Vietnam National Reinsurance Corporation (VINARE), Vietnam
— Wahana Tata Insurance, Indonesia

Key Pulse readings

In 2016 196 nations signed the Paris agreement to curb greenhouse gas emissions (GHG) and limit global warming to 1.5 degrees Celsius, compared to pre-industrial levels. The ASEAN countries were part of the signatories. Having committed to the accord, they set themselves goals to reduce their GHG emissions and transition their national economies to a less carbon intensive business model. Due to their function as risk managers, risk takers and investors, insurers play a prominent role in this transition. The ASEAN governments recognize the importance of the insurance sector as facilitator and mandated the financial services regulators to encourage and oversee the contribution of the insurance industry to actively reduce carbon emissions and reports on their progress.

Along with other industries, the insurance sector has vowed to assume leadership and drive forward the transformation of national and regional economies. The global environmental, social and governance (ESG) framework is one of the standards that institutions around the world have chosen to manage their impact on the environment and to disclose their progress. Other frameworks are still in place and the ASEAN insurers follow various standards to assess, categorize and transition their risks and operations to a less carbon intensive state.

Reflecting on the different activities and stages that the ASEAN insurers assume to contribute to the transformation of their economies, the *ASEAN Insurance Pulse* surveyed the region's risk carriers and intermediates on the relevance of the Paris accord, how the decarbonization of the ASEAN economies shapes their strategies and operations and how they measure and disclose their progress. ESG is used in this context as it is mainly applied in the region – as a framework which serves foremost to manage and reduce a company's environmental impact. Although the ESG framework includes the social and governance aspects too, due to our focus on the Paris agreement and the decarbonization of the ASEAN economies, we will not address these here.

Transformation of the ASEAN economy

ASEAN's economies have grown from a GDP of USD 380 billion in 1990 to USD 3.1 trillion in 2020, becoming one of the most dynamic regions in the world. Driven by the region's ascent as a key manufacturing supplier, ASEAN growth was coupled with rising demand for energy. In 2019 the region consumed nearly 30 million terajoule (TJ) of energy, close to 30 % more than 10 years ago, with only 7 % stemming from renewable energy, which grew slightly above 7 % over that period, but still slower than thermal coal, which expanded by 8.6 % in the last decade.

CO_2 emissions from fuel combustion have steadily increased in ASEAN, with the power sector becoming the largest emitter in all ASEAN member states except Cambodia. With the exception of Singapore, the largest ASEAN economies, Indonesia, Thailand, Malaysia, and the Philippines, are also the largest emitters of CO_2 in the region. In 2017 – 18, the total installed power capacity of Southeast Asian countries was 280 GW. Coal capacity contributed around 40 % to power generation in Southeast Asian countries and will remain the dominant source for energy until at least 2040. In 2022, ASEAN member states plan to install an additional 4.3 GW of coal-based power, representing more than 30 % of the total planned power capacity addition.

ASEAN countries have made major commitments to implement the UN's Paris Agreement of 2015. However, according to initial findings many countries in the region still fall short to support the Paris Agreement targets, which is partially due to institutional barriers but mainly weak financing, with only 6 ASEAN countries having sufficient financial frameworks in place. Overall, until 2050 more than USD 800 billions of power investments will be required to fulfil the needs of the region's expanding economy and meet its commitments to the Paris accord.

The insurance industry plays an important role in addressing environmental risks and opportunities as well as facilitating and financing the transition towards a low carbon economy. Insurers already revise their underwriting and investment guidelines to phase out their involvement with the oil and gas industry and transition their books to net-zero greenhouse gas emissions by 2050 and have taken significant steps to divest themselves of coal. By the end of 2020, at least 65 insurers with total assets of USD 12 trillion had committed to either divest from coal or make no new coal investments.

The ASEAN route to decarbonization

ASEAN insurers are well aware of the Paris accord. The region has experienced a steady increase in losses resulting from climate change. Heavy flood events, torrential rain, changes in the pattern of the monsoon season and more severe losses caused by tropical cyclones are a steady reminder to population and industry of the mounting damages and cost of climate change and the need to reduce carbon emissions.

Most ASEAN insurers already have taken strategic steps to incorporate the Paris accord or ESG into their operations. However, a general taxonomy how to classify assets and liability according to a clear ranking is still being developed in most markets. This applies both to their investment and underwriting strategies. Advanced insurers have set themselves a target when to achieve carbon neutrality or even net-zero green-house-gas emissions – an UN initiative signed by 29 global insurers or reinsurers representing more than 14 % of global insurance premiums.

On the investment side, insurers stated that they aim to phase out of thermal coal, thermal power plant or coal cargo – and to increase renewable energy. However, the challenges in building up a climate resilient or ESG compliant investment strategy still outweigh the opportunities. Insurers see themselves at the forefront to paving the route of the energy transformation by funnelling investments towards renewable energy projects, such as hydro, wind or solar energy, or to innovative technologies that enable a less carbon intensive economic model. Green bonds are a relatively small and not yet clearly defined asset class. Thus, choices are limited and there are not enough green bonds to absorb a sizable shift of investments from conventional classes.

Since a taxonomy on how to categorize liability risks has yet to be defined, most insurers see exclusions as the most advanced measure to decarbonize their underwriting portfolio. The most widespread exclusions are coal fired power plants, coal mining, arctic drilling or animal testing. Since the ASEAN countries are largely fossil fuel exporters, there is no question that insurers will support the current economy and not pull out of existing contracts or withdraw capacity from existing clients. But they might have set themselves strict targets to reduce their fossil fuel portfolio to a minimum.

ASEAN insurers expect growing demand and try to take advantage of the business opportunities arising from the emergence of new technologies. Insurance products may cover renewable energy products, their manufacturing, derivatives, green energy pools as well as mass products like electric cars. Insurers develop credit products to guarantee loans issued for renewable energy investments. In many markets, property policies must be refined or developed to cover hydro, solar or wind energy risks. Insurers also introduce weather derivatives for renewable energy if the envisioned wind or solar production falls short of expectations.

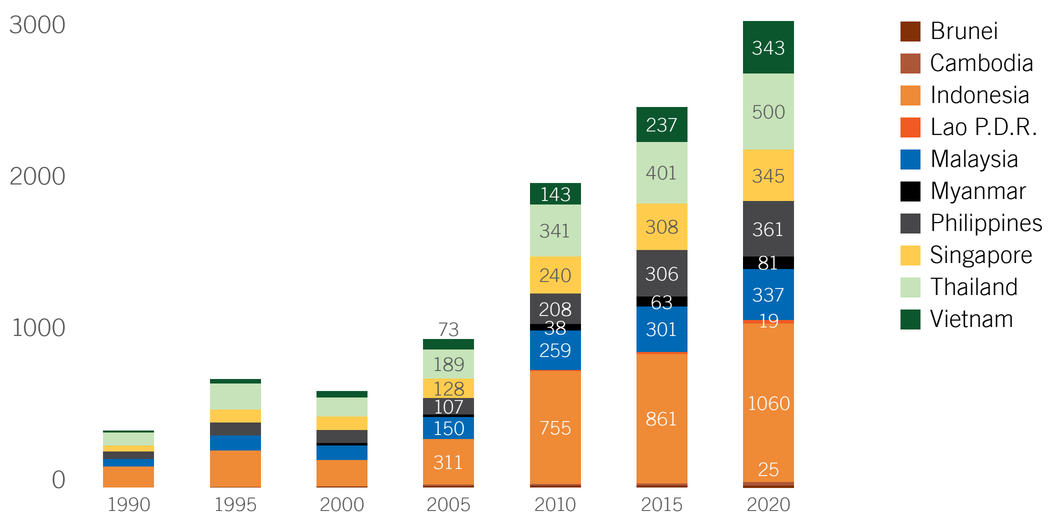
ASEAN regulators are a key driver, if not the main force promoting and encouraging the integration of ESG or decarbonization targets into insurers' operations and reporting. Malaysia and Singapore seem most advanced, having introduced principle-based taxonomies or guidelines on environmental risk management, expecting the country's insurers to monitor and stress-test their exposure to climate risks. Other insurance commissions expect disclosure on climate risk, made regulatory sustainability reports a standard and asked to fill in questionnaires to gain transparency on the risks of their insurers.

ASEAN economy and energy consumption

Rapid growth of the ASEAN economy

ASEAN's economic development over the past 30 years has been remarkable, becoming one of the most dynamic emerging market regions globally. In the last three decades, ASEAN's GDP has grown at an impressive CAGR of 7.2 % from approx. USD 380 billion in 1990 to USD 3.1 trillion in 2020. With a GDP of more than USD 1 trillion in 2020, Indonesia is the largest economy, followed by Thailand, the Philippines, Singapore, Vietnam, and Malaysia, all of which have reached a similar GDP of close to USD 350 billion in 2020. Over the same period, at a CAGR of 13.2 %, Vietnam achieved the highest growth, followed by Cambodia (11.8 %) and Lao PDR (8.2 %). With an average regional CAGR of 8.1 %, growth was strongest between 2000 and 2010, slowing to a CAGR of 2.3 % the following decade.

Chart 1: GDP current prices, ASEAN member countries, 1990–2020, USD billion



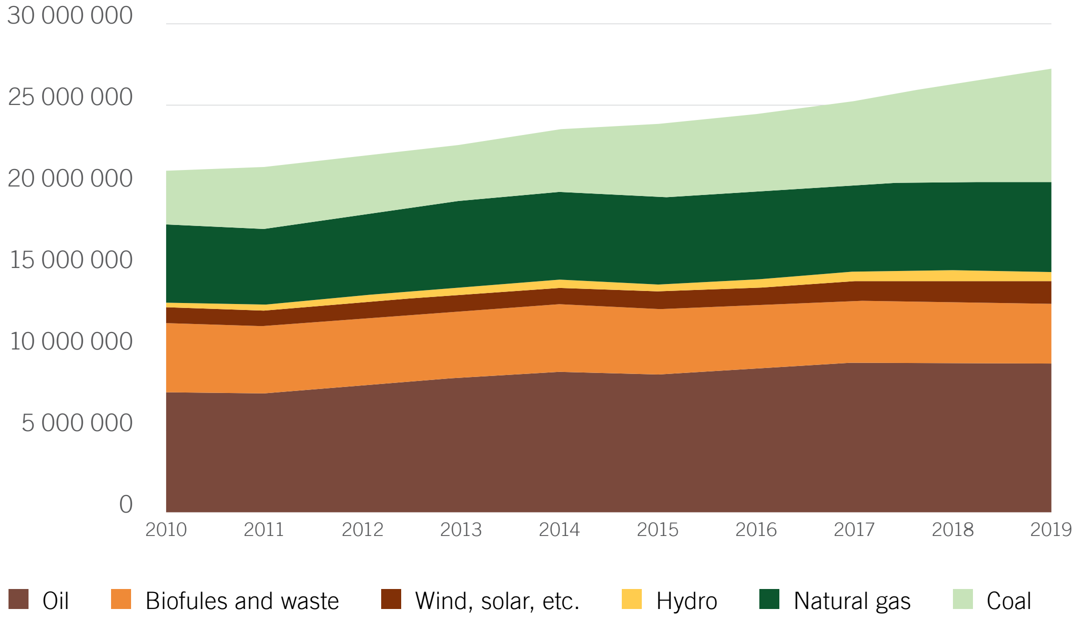
Source: IMF World Economic Outlook Database, April 2022

The region's steep economic growth has been coupled with increasing demand for electricity and a growing share of energy in the region's GDP. Based on current business-as-usual efforts and in line with rapid economic growth, energy demand in the region is expected to triple by 2050. Industrial growth is one of the key drivers for the increasing energy demand and intensity. As a result, ASEAN's impressive growth and industrialization have come at the expense of the environment and natural assets.

Oil accounts for more than 33 % of total installed power capacity in ASEAN

Recent studies show that renewables have been very slow to gain ground over fossil fuels in the region over the past two decades. Fossil fuels are likely to remain an important component of the ASEAN energy mix for decades to come. Consequently, decarbonizing efforts should focus not only on increasing the share of renewable energies in electricity generation, but also in technologies to reduce CO_2 emission from fossil power and industrial plants.

Chart 2: Total energy supply (TJ) by source, ASEAN member countries, 2010–2019



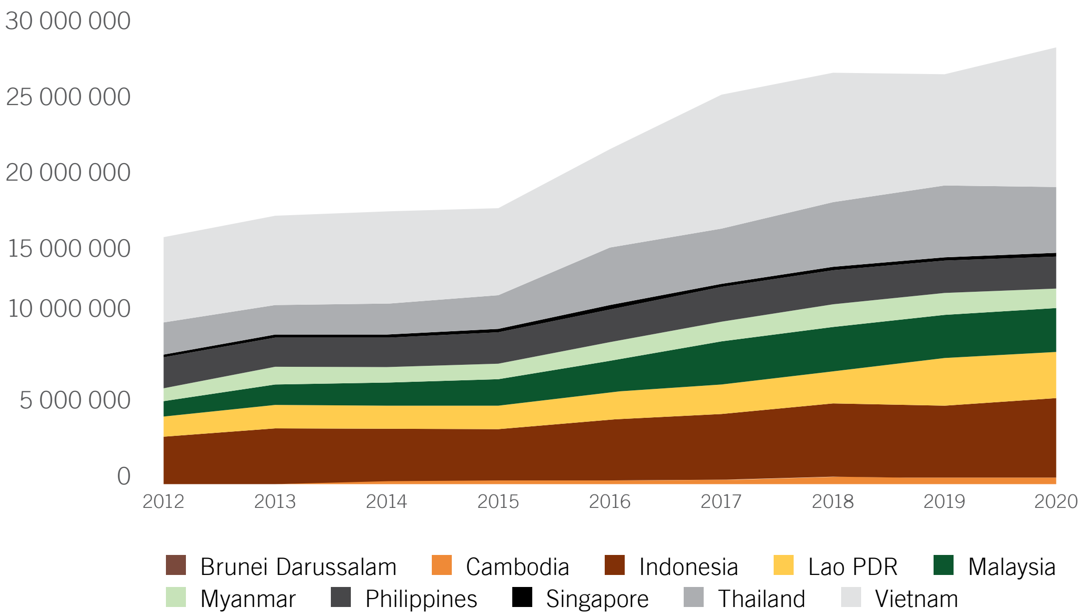
Source: IEA Energy Statistics Browser

In 2019, oil contributed approx. 33.5 % of the total energy supply of all ASEAN member countries, followed by coal (25.5 %) and natural gas (20.4 %). From 2010 to 2019, coal-based energy supply grew the fastest at a CAGR of 8.6 %, followed by hydropower (8.3 %) and wind and solar (4.0 %), although the latter two contributed only 7 % to the total ASEAN energy supply in 2019.

Renewable energy production outgrows total energy production in ASEAN

Renewable energy plays an important role for sustainable development by enhancing energy security through fuel diversification, reducing the dependency on imported fuels, and contributing to the mitigation of climate change. From 2012 to 2019, renewable energy production increased at a compound average annual growth rate of 7.4 % across the ASEAN region. Vietnam (29.4 %) and Malaysia (13.0 %) recorded the strongest annual growth, while Brunei and the Philippines saw little additional renewable energy production during that period.

Chart 3: Renewable energy production (GWh), ASEAN member countries, 2012 – 2020



Source: IRENA; IRENASTAT Online Data Query Tool

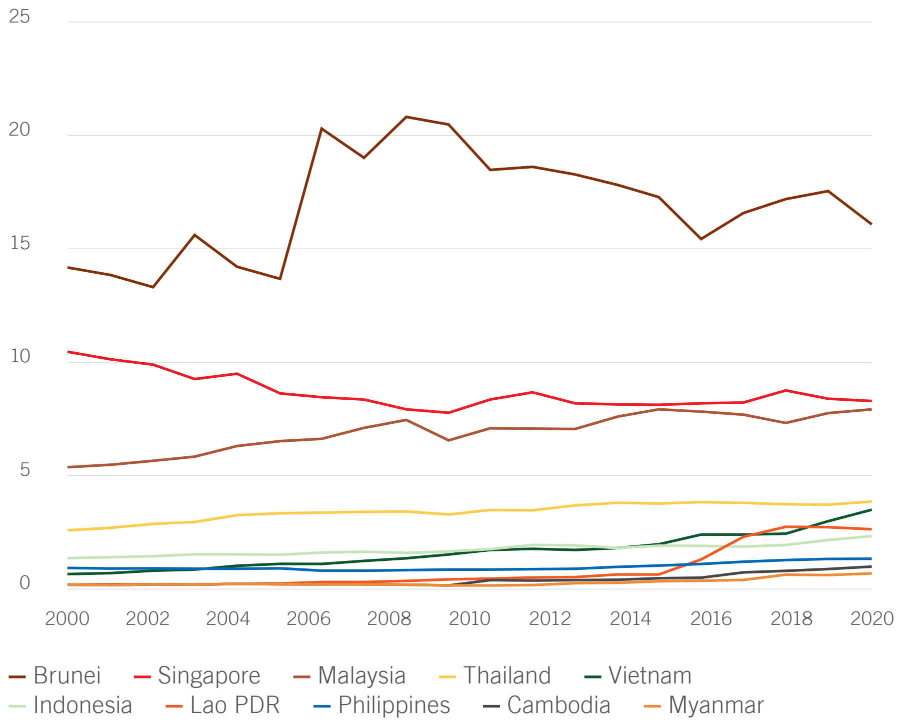
The cost of renewable energy, in particular photovoltaic energy and onshore wind, has decreased significantly in recent years. With increasing renewable energy penetration, the flexibility of the power system becomes a very relevant issue that requires the attention of policymakers. Electricity grids, including cross-border connections, are a key source of system flexibility.

A study published by the International Energy Agency (IEA) in 2019[1] found, that optimizing cross-border flows through multilateral trade – based on the existing cross-border infrastructure – will not only enable the integration of renewable energy installations but also has the potential to reduce annual operational costs of the ASEAN power sector by USD 1 billion, corresponding to a supply cost reduction of around USD 1 per MWh.

CO_2 emissions per capita above the global average

Carbon dioxide emissions are those stemming from the burning of fossil fuels and the manufacture of cement. They include carbon dioxide produced during consumption of solid, liquid, and gas fuels and gas flaring. Except for Brunei and Cambodia, CO_2 emissions per capita across the ASEAN region remained remarkably stable between 2000 and 2019, suggesting that the overall increase in emissions per country was largely due to population growth. In 2019, the global average of CO_2 emissions per capita was 4.5 metric tons.

Chart 4: CO_2 emissions (metric tons per capita), ASEAN member countries, 2000–2019



Source: World Bank

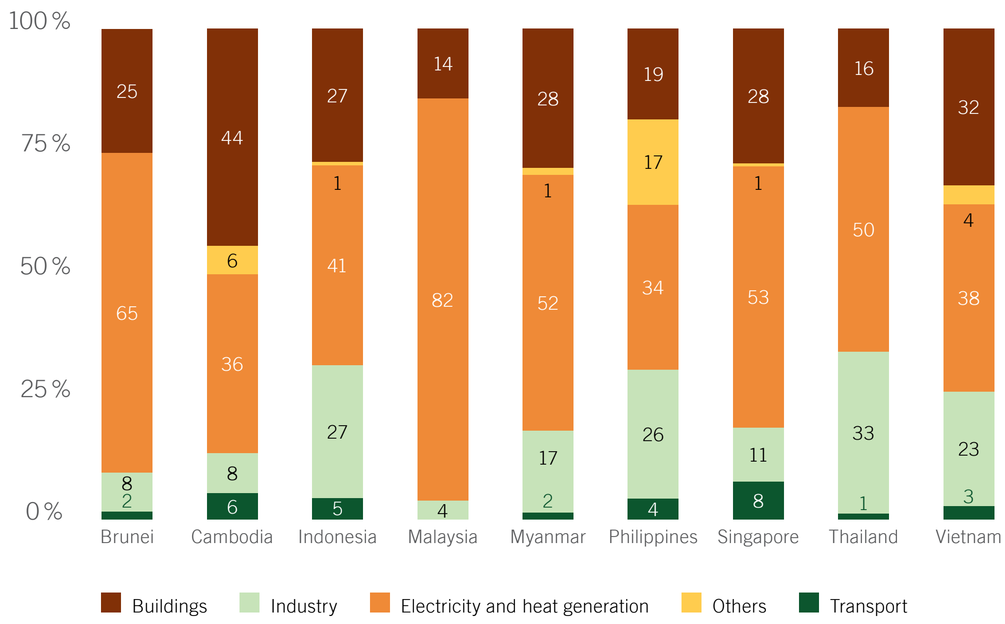
1 IEA (2019): ASEAN Renewable Energy Integration Analysis. Flexibility benefits of cross-border power trade

Globally, Brunei belongs to the group of countries that emit the most CO_2 per inhabitant. Its economy is highly reliant on oil and gas with current diversification efforts focused on energy intensive industries, mainly oil and gas. The country's strategy to lower greenhouse gas emissions includes the introduction of carbon pricing to all industrial facilities and power utilities by 2025, increasing the share of electric vehicles to 60 percent of total annual vehicle sales and shifting towards renewable energy to at least 30 percent in the total power generation mix by 2035.

The power sector is the largest source of CO_2 emissions

Over the past two decades, CO_2 emissions from fuel combustion have steadily increased in ASEAN, especially in sectors such as power and heat generation, manufacturing, and transport. The power sector is the largest source of CO_2 emissions in all ASEAN member states, with the exception of Cambodia, where the transport sector accounts for larger emissions. Overall, sectoral CO_2 emissions in the region are similar to global averages, implying that decarbonization in the power, industry, and transport sectors is a common global goal with respect to climate change.

Chart 5: ASEAN member countries: CO_2 emissions from fuel combustion by sector

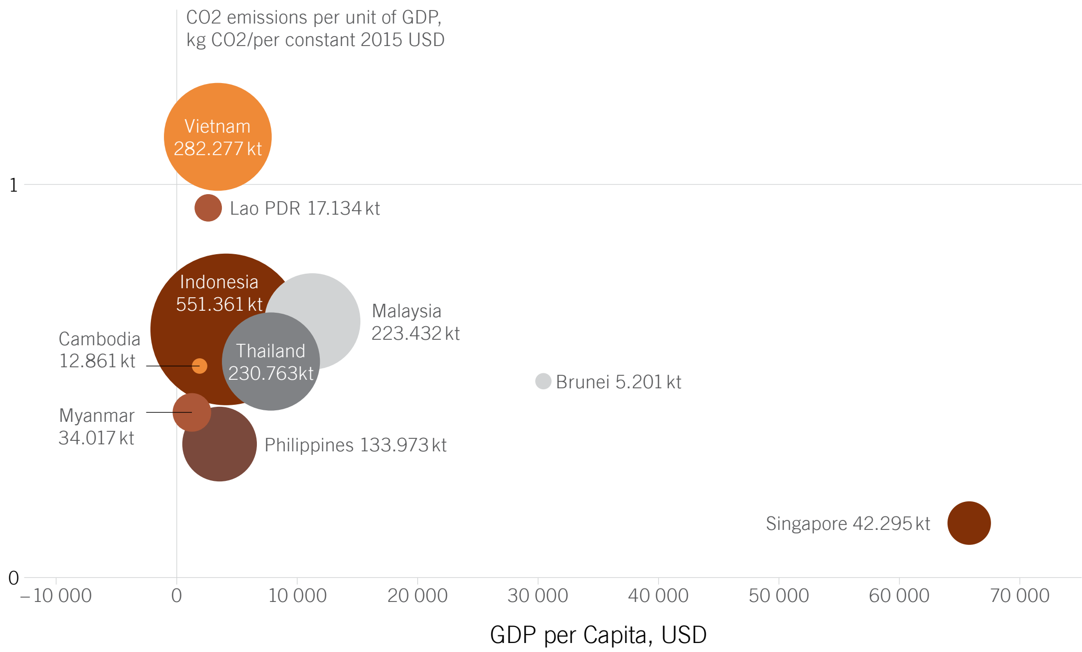


Source: IEA Energy Statistics Data Browser. Data retrieved on October 10, 2022

Carbon footprint of ASEAN countries determined by the CO_2 intensity of their energy generation

CO_2 emission accounts for around 80 % of all Greenhouse Gas (GHG) emission from the manufacturing processes. The indicator CO_2 emissions per unit of GDP is an important indicator used to document and evaluate progress in achieving the Sustainable Development Goal[2] (SDG) 9: «Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.» The indicator represents the amount of emissions from fuel combustion produced by an economic activity, per unit of economic output. When computed for the whole economy, it combines effects of the average carbon intensity of the energy mix (linked to the shares of the various fossil fuels in the total); of the structure of an economy (linked to the relative weight of more or less energy-intensive sectors); of the average efficiency in the use of energy.

Chart 6: 2019 GDP per capita (USD), CO_2 emissions per unit of GDP (kg) and total CO_2 emissions from fuel combustion ($ktCO_2$)
Size of the bubble represents total CO_2 emissions from fuel combustion



Source: IEA Energy Statistics Data Browser. Data retrieved on October 10, 2022

2 The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve oceans and forests.

As can be expected, total CO_2 emissions per ASEAN country are related to the size of the economy as measured by GDP. With the exception of Singapore, the largest ASEAN economies, Indonesia, Thailand, Malaysia, and the Philippines, are also the largest emitters of CO_2 in the region. However, among these larger ASEAN economies, the Philippines stands out as the country with relatively low CO_2 intensity, while the carbon intensity of economic activity in Vietnam is much higher than in the other countries in the region. This is largely due to the very high share of coal-based electricity capacity in Vietnam (39 % compared to an ASEAN average of 26 %). Singapore's very low carbon intensity also reflects the fact that it is the only high-income country in ASEAN where the services sector, which has a rather low carbon footprint compared to other sectors such as manufacturing, accounts for a very large share of GDP (69.4 % in 2021).

Hydropower growing rapidly in the region from a low base

In 2017–18, the total installed power capacity of Southeast Asian countries was 280 GW. Coal represented 75 GW, i.e., 25 per cent of it. Overall, Indonesia (65 GW), Thailand (50 GW) and Vietnam (48.8 GW) are the top three countries with respect to total installed electricity capacity. However, with respect to installed coal-based capacity, Indonesia (28.5 GW), Vietnam (19 GW) and Malaysia (10.5 GW) are the three top countries. Most of this coal-based capacity is largely new, nearly 43 GW of it is less than a decade old. About 16 GW is between 10–20 years old and 16 GW is more than 20 years old. In 2018, coal capacity contributed around 40 per cent to power generation in Southeast Asian countries. As per projections, this scenario will continue until at least 2040.[3] This is also illustrated by the fact that in 2022, ASEAN member states plan to install an additional 4.3 GW of coal-based power capacity, representing more than 30 % of the total planned power capacity addition.

3 2021, Centre for Science and Environment, New Delhi: Coal-based Thermal Power in Southeast Asian Countries

Table 1: Planned power capacity additions (MW) in ASEAN member states in 2022

Source	*BN*	*KH*	*ID*	*LA*	*MY*	*MM*	*PH*	*SG*	*TH*	*VN*	*Total ASEAN*
Coal		133	2'444	220					–270	1'800	4,327
Oil			5								5
Gas			1'822		–915	443			738	3'300	5'388
Hydro		350	207		7	486	28		514		1'592
Solar	32	450	287				21	200			990
Wind			2							488	490
Geothermal			108								108
Biomass and others			43		65			100	783		1'091
Total	32	933	4'918	220	–843	1'029	49	300	1'765	5'588	13'991

Note: BN = Brunei; KH = Cambodia; ID = Indonesia; LA = Laos; MY = Malaysia; MM = Myanmar; PH= Philippines; SG = Singapore; TH = Thailand; VN = Vietnam

Source: ASEAN Centre for Energy, ASEAN Energy in 2022

The ASEAN Taxonomy for Sustainable Finance

In 2019, the role of sustainable finance was recognized by the ASEAN Finance Ministers' and Central Bank Governors' Meeting. Having a common understanding was considered a prerequisite for ASEAN going forward to attract and orient capital towards sustainable investments and away from non-sustainable activities. In March 2021, various ASEAN high-level stakeholders, including the ASEAN Capital Markets Forum (ACMF) and the ASEAN Insurance Regulators Meeting (AIRM), decided to develop, maintain and promote the ASEAN Taxonomy for Sustainable Finance.

The ASEAN Taxonomy for Sustainable Finance has been developed to serve as a common building block enabling an orderly transition and fostering a sustainable finance adoption by ASEAN member countries. The Taxonomy will serve as a common language across the different jurisdictions to communicate and coordinate on labelling for economic activities and financial instruments.

The taxonomy consists of two main elements: (1) the Foundation Framework, which applies to all ASEAN members states (AMS) and allows for qualitative assessment of activities, and the (2) Plus Standard, with metrics and thresholds to further qualify and benchmark eligible green activities and investments. The environmental goals of the ASEAN Taxonomy are universal and apply to all member countries, in accordance with national environmental laws.

The Plus Standard provides details on how to determine whether an economic activity qualifies for the ASEAN taxonomy. In the initial phase, this will cover economic activities in key sectors that are important for achieving the environmental goals outlined above. These priority sectors were identified based on their economic and environmental importance to the region using parameters such as greenhouse gas emissions and gross value added.

In addition, several enabling sectors were included as they could significantly contribute to climate change mitigation, among others, through the development of sustainable financial products, frameworks and services to support the implementation of environmentally friendly projects.

Dependence on international support to meet GHG targets

The 2016 Paris Agreement resulted in the United Nations' 2030 Agenda for Sustainable Development, which set the Sustainable Development Goals (SDGs). The SDGs recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve oceans and forests. By September 2017, all ASEAN countries had signed the Paris Agreement and committed to so called nationally determined contributions (NDCs).

Table 2: Nationally determined contributions of ASEAN member countries

ASEAN member country	*Selected Nationally Determined Contributions (NDCs)*
Brunei Darussalam	— Reduce GHG emissions by 20 % relative to Business-As-Usual (BAU) levels by 2030 — 63 % reduction in total energy consumption by 2035
Cambodia	— Reduce GHG emissions by 42 % relative to BAU levels by 2030 — Half deforestation rate by 2030
Indonesia	— Reduce GHG emissions by 29 % (unconditional) and up to 41 % (conditional) relative to BAU levels by 2030 — Share of new and renewable energy at least 23 % in 2025 and at least 31 % in 2050 — Max. share of coal: 30 % in 2025 and 25 % in 2050 — Max. share of oil: 25 % in 2025 and 20 % in 2050
Lao PDR	— Reduce GHG emissions by 60 % relative to BAU levels by 2030 — Increase forest cover to 70 % of total land area
Malaysia	— Reduce GHG emissions by 45 % relative to 2005 levels by 2030
Myanmar	— Avoiding 105mt CO_2 (unconditional) / 144 mt CO_2 (conditional) relative to BAU levels by 2030 — Increase share of renewable energy to 53.5 % — Decrease the share of coal by 73.5 %
Philippines	— Reduce GHG emissions by 75 %, of which 2.71 % is unconditional and 72.29 % is conditional
Singapore	— Reduce emissions intensity by 36 % from 2005 levels, and stabilize emissions with the aim of peaking around 2030
Thailand	— Reduce GHG emissions by 20 % relative to BAU levels by 2030
Vietnam	— Reduce GHG emissions by 7.3 % relative to BAU levels by 2025 and by 9 % by 2030 — With international support, the 2030 reduction target can be increased to 27 %

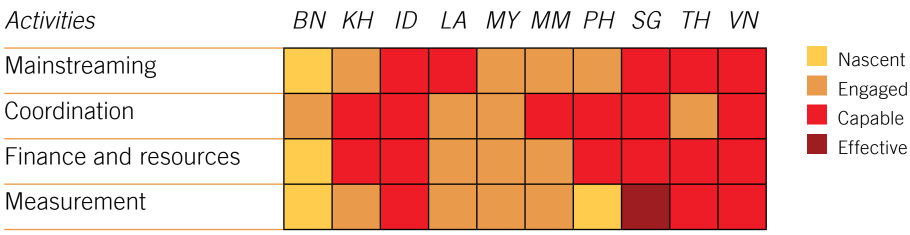
Source: ASEAN Taxonomy for Sustainable Finance, Version 1, November 2021

Some countries, such as Indonesia, Myanmar and Vietnam, have indicated in their NDCs that they will have «unconditional goals» which will be fully supported by national financial resources, and in addition have «conditional goals» meaning they require extra grants or loans from other countries to deliver, as well as a market mechanism to support the implementation of the conditional part of the NDCs.

NDC commitments falling short of Paris Agreement targets

As shown in table 2, ASEAN countries have made major commitments to implement the UN's Paris Agreement of 2015 through Nationally Determined Contributions. In 2020, UN ESCAP, UNEP and Greenwerk have released preliminary findings of the assessment of progress of nationally determined contributions (NDC) implementation in ASEAN member countries. These initial findings revealed that the NDC commitments of many countries in region are falling short to support the Paris Agreement targets. The assessment also demonstrated that there are significant institutional barriers to achieving NDC targets.

Table 3: Progress on NDC implementation in ASEAN



Note: BN = Brunei; KH = Cambodia; ID = Indonesia; LA = Laos; MY = Malaysia; MM = Myanmar; PH= Philippines; SG = Singapore; TH = Thailand; VN = Vietnam

Source: UN ESCAP (2020): Progress of NDC implementation in Asia-Pacific – Methodological framework and preliminary findings

According to the 2020 assessment, Brunei Darussalam is the only ASEAN country being at the very beginning stage and still finding a way of mainstreaming NDCs into national legal and development frameworks. Most other countries have either some basic measures in place to incorporate NDCs or are already substantially prepared and capable to initiate the NDC implementation and have a good basis for a more ambitious NDC review.

One of the weakest spots is financing of the NDC implementation in the region, with only 6 countries having sufficient financial frameworks in place. 4 out of the 10 countries – Brunei, Lao PDR, Myanmar and Malaysia – are still in the early stages of estimating financial needs for climate action, allocating budgets for this in sectoral ministries and establishing means of engaging and driving the private sector to act. Experience has shown that the implementation of most, if not all, climate change policies and commitments, and thus more ambitious targets, is not possible without sufficient national funding for sectoral and local climate action.

Interview with AM Best on the relevance of ESG for the ASEAN insurance markets

According to AM Best, environmental, social and governance (ESG) factors have gained significant traction in recent years as insurance companies look to improve the transparency of risks not captured by standard financial metrics. These include sustainability and climate-related risks, which have formed the basis for the origins of the ESG reporting in the Principles of Responsible Investment (PRI), introduced by the UN in 2006, of which AM Best became the first credit rating agency signatory in 2021.

ESG risks, when material and relevant to financial strength, have always been part of AM Best's credit rating analysis of an insurer. The rating agency updated its methodology in 2018 to identify how ESG factors impact an insurer's financial strength.

With ESG factors becoming increasingly relevant in the assessment of a company's financial strength among insurers, as well as being increasingly important to regulators, investors, policymakers and the wider public, AM Best conducted a study on the impact of ESG on its rating actions. Published in July 2021, the report found that between April 2020 and March 2021, ESG had been a key factor in 13 % of rating actions. Companies domiciled in Asia Pacific made up 13 % of those rating actions, triggering a negative rating action in 69 % of those cases. In late 2021, AM Best introduced a dedicated ESG section to its Best's Credit Reports under enterprise risk management, reflecting the interest from insurance stakeholders for more information and transparency on how ESG risks impact (re)insurers.

AM Best also has remarked that regulators are keen to strengthen ESG reporting. With its survey, AM Best noted that recent regulatory requirements issued by the European Securities and Market Authority mandated that credit rating agencies publicly disclose ESG factors that determine rating actions. These are predominately natural catastrophe and climate risk-related events that can present either physical, transition or liability-related risks, as well as reputational and governance risks, which may impact an insurer's creditworthiness – in particular its balance sheet strength, operating performance, business profile and enterprise risk management.

For the *ASEAN Insurance Pulse*, we interviewed leading analysts from AM Best's Singapore office - Michael Dunckley, director, analytics, Southeast Asia, Australia and New Zealand, and Greg Carter, managing director, analytics, EMEA and Asia Pacific – and asked them about the importance of ESG for the region's insurers.

ESG is perceived as a means of investing in progress and encouraging better ways of doing business. What is AM Best's position on ESG and what does a favorable ESG characteristics tell you about an insurer's performance or operations?

AM Best views ESG factors as useful in making sure we have a complete understanding of an insurance company's credit risk profile. For example, insurers that can better manage their governance structure are more likely to perform better due to better strategic decision-making and risk management capability. Equally, insurers that are better able to understand and control climate risk should see less volatility in operating results.

We make a clear distinction between ESG characteristics that have an impact on credit quality and those that do not. AM Best focuses on those factors that are material and relevant to an insurer's financial strength and creditworthiness. Certain activities associated with ESG, such as a reduction in carbon footprint and re-allocations of investments to ESG funds, are often credit neutral for insurance companies.

Whilst risk is important, AM Best is looking out for opportunities and strengths associated with ESG. New products associated with clean energy generation or environment liability can present growth areas for insurance companies. Strengthening of natural catastrophe modelling can give insurers stronger pricing ability and better understanding of their exposures.

ESG factors are far from new for AM Best. We have always sought to understand the full risk exposure of insurance companies when analysing financial strength. AM Best has certainly been considering climate exposure and governance capability of insurers long before ESG was high on the news agenda.

The ASEAN region is very diverse with advanced markets like Singapore or Malaysia or frontier markets like Laos or Cambodia. Does AM Best's ESG considerations reflect those differences?

The impact of ESG on financial strength will vary according to a company's risk profile and the risks it assumes, as well as its risk transfer measures, the markets it operates in and the regulatory requirements it is subject to. Key considerations will be the nature and level of natural perils in those markets, and the quality of governance, and governance regulation. These factors are taken into account for all insurers rated by AM Best globally.

A key difference we see between the first and second group of markets with regard to ESG is regulation, rather than underlying risk. More-developed markets have regulators that are introducing disclosures and other ESG-linked requirements typically linked the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations. For insurers operating under these regimes, this can represent an additional regulatory burden, but also the opportunity to re-examine climate risk exposure.

An insurer’s governance and risk management needs to be adequate to respond to its risk profile. This includes its ability to deal with the changing nature of climate-related risks, such as increasing severity and frequency due to changing climate conditions. An insurer has to be able to demonstrate its capability to manage non-modelled risks and undertake stress-test scenarios.

According to your experience, what are the key drivers for ESG compliance among ASEAN insurers?

Regulators in the ASEAN markets demand that insurers conduct scenario testing for climate factors. In 2017, the Financial Stability Board introduced the Task Force on Climate-Related Financial Disclosure (TCFD). It determined that one of the essential functions of financial markets is to price risks adequately to allow for informed and efficient capital allocations. Therefore, financial markets need timely and accurate disclosure from their companies.

In line with this concept, regulators expect insurers to demonstrate how they incorporate climate-related risk factors and ESG into their operations. An insurer has to demonstrate how it assesses climate risks on the liability side in its underwriting – and on the asset side in its investment strategy - and how it mitigates these risks through reinsurance or other risk transfer mechanisms.

These requirements will create more work and cost for the sector, but should result in management teams having a stronger understanding of risk exposures. We would draw a parallel with Solvency II implementation in Europe. It created an enormous additional regulatory burden for insurers, but resulted in a stronger understanding and control of risk for the industry and more-robust financial strength.

According to your experience, are there substantial differences between locally owned insurers and those that are foreign owned and report into a parent listed in Europe or the US?

In general, we do not see substantial differences. The main driver for an adaptation of the ESG framework are regulatory requirements, but there are obviously differences among companies. These are the usual competitive advantages, or disadvantages, that reflect the differences in accessing resources. Since international insurers are usually larger and more diversified than local players, some of them might be more advanced. In addition, ESG has been introduced earlier in the mature markets than in emerging markets like the ASEAN region. That might also be an advantage.

What are the main approaches or strategies initiated by ASEAN insurers to establish and possible strengthen their ESG practices? What are the main trends you observe in the region?

Insurers are in the process of defining their strategies on the liability and the asset sides.

Insurers that take on climate risk through their property insurance portfolios need to have strong risk management capability. This will allow them to appropriately price, measure accumulation, model exposure at high return periods and purchase appropriate reinsurance protection. In terms of opportunities, insurers are looking to broaden their product offering by insuring new risks such as renewable energy. These risks might generate additional premiums and create a competitive advantage.

A key ESG risk on the asset side is exposure to stranded assets. These potentially include raw material extraction and non-renewable energy generation. Several ASEAN countries have economies with a significant weighting toward these activities. However, we typically do not view this as a high risk exposure for ASEAN insurers as they typically have well-diversified asset portfolios with a high allocation to fixed income. A number the large regional energy and extraction companies are state-owned so are not investable.

In the ASEAN market's environmental liability is a growing risk. What is the attitude of AM Best on these risks?

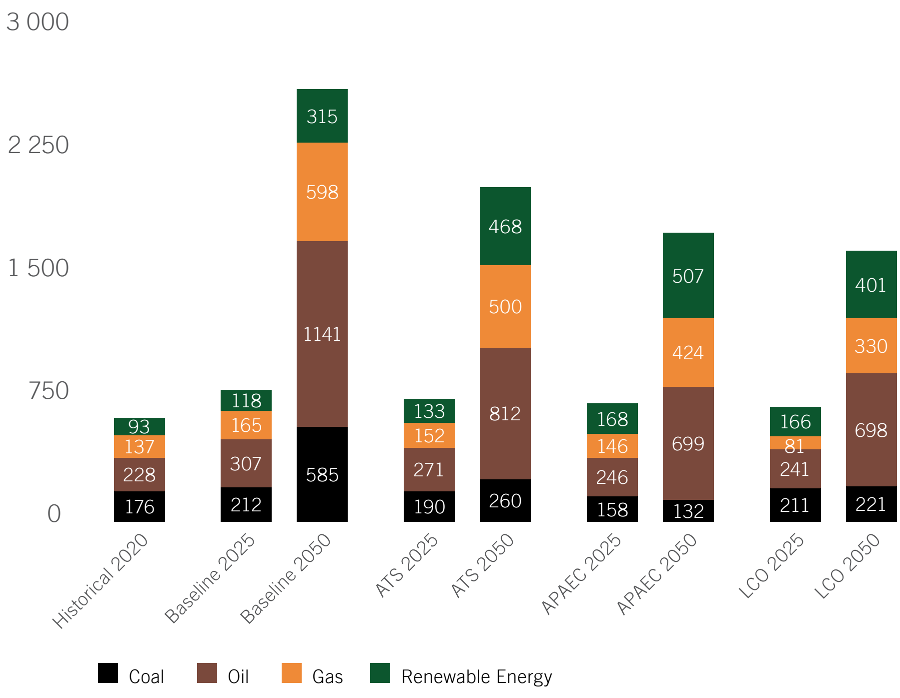
Environmental liability is a growing area of coverage in ASEAN. Governments and courts are forcing polluting companies to pay for negative impacts they have on the environment and therefore those companies are seeking insurance cover to mitigate this risk. We note for example that Vietnam has recently introduced a requirement for compulsory environmental liability insurance for a number of sectors, including energy and chemical production.

New insurable risks present opportunities for insurers to grow revenues and diversify. However, we note the risk of mispricing of relatively new lines of business. We would expect primary insurers to reinsure environmental liability policies heavily in order to limit net exposure and to benefit from the pricing expertise of reinsurers.

Oil will remain the most important energy source in all ASEAN scenarios

The ASEAN Energy Outlook builds on the latest official energy and macroeconomic data as well as on the official energy policy of ASEAN member countries, to project future trends on energy to achieve energy security, accessibility, affordability and sustainability. The outlook projects multiple realistic scenarios to gather insights for exploring a very challenging time ahead. In total, four central scenarios are simulated: (1) the Baseline Scenario, (2) the ASEAN member country's National Targets Scenario (ATS), (3) the APAEC (Regional) Targets Scenario (APS) and the Least Cost Optimization Scenario (LCO).

Chart 7: Total primary energy supply shares by source, ASEAN Member States, different scenarios



Source: ASEAN Centre for Energy (September 2022): The 7th ASEAN Energy Outlook

Baseline Scenario

This scenario follows the historical trend of ASEAN Member States (AMS) energy systems. It assumes a business-as-usual level of effort put forth by each AMS, without any modelling interventions to meet existing national renewable energy and/or energy efficiency targets. Hence, it also excludes firm plant capacity additions from power development plans.

AMS Targets Scenario

This scenario ensures attainment of official national policies, especially for energy efficiency and renewable energy targets. Includes power development plan installation targets are firmed capacity additions and provides modelling interventions to meet energy-related targets under countries' Nationally Determined Contributions (NDC).

APAEC Targets Scenario

This scenario seeks to bridge the gap between national and regional targets outlined in APAEC 2016-2025 by escalating national energy intensity reduction and renewable energy targets, and/or setting new target for members states that could potentially adopt specific policies.

Least-Cost Optimization (LCO) Scenario

This scenario explored the least-cost dispatch in the power sector to meet the regional target throughout the entire modelling period with a technology-neutral approach of considering all viable technologies in the region.

More than USD 800 billion power investment needed until 2050

In line with its rapid economic growth, the region's energy demand is expected to triple by 2050 under the Baseline Scenario. However, national efficiency measures and fuel shifting could significantly slow the growth in total final energy consumption. By incorporating the national policies, the ASEAN member states Target Scenario (ATS) projects to achieve a 7.6 % reduction in energy demand versus the Baseline Scenario by 2025. In the APAEC Target Scenario the application of regional policies will lead to overall savings of 10.9 %. By 2050, the savings will reach 25.3 % for national policies and 34.3 % once additional regionally focused measures are included.

To support the power expansion and emission targets achievement throughout 2021 – 2025, investments of USD 162 billion are required, while USD 154 billion or USD 159 billion are needed to meet the Baseline Scenario, ATS, and APS, respectively. In the earlier years (2021 – 2030), the annual power investment requirement varies from USD 24 – 29 billion. Whereas in the mid-term (2031 – 2040), all scenarios except the Baseline Scenario follow a declining trend, reaching the lowest value of USD 16 billion for the LCO Scenario. In the long-term, as the region foresees new installations to meet the higher energy demand, annual power investments range from USD 24 – 41 billion. Overall power investments needed throughout the entire period are USD 970 billion for the Baseline Scenario. The LCO Scenario only requires USD 651 billion, about 79 % of the APS scenario. Renewable energy investments account for about 59 % and 75 % of the total investment required for the power sector, on average, for ATS and APS.

Carbon Capture Utilization and Storage will be key to achieving ASEAN's decarbonization goals

Carbon Capture Utilization and Storage (CCUS) is a technology that captures the carbon emitted during fossil fuel combustion. The carbon can either be used as a resource, for example in enhanced oil recovery, or it can be permanently stored. CCUS has long been seen as an emissions reduction solution for the power sector and carbon-intensive industries, such as cement and steel and hence would be very relevant for most ASEAN countries, given the projected ongoing high dependency of the power sector on oil and coal. It is regarded by many energy specialists as having a key role to play in decarbonizing energy systems and addressing the key challenge of global climate change. Although the ASEAN member countries have made commitments to reduce their use of fossil fuels, the process will take many years. The transitioning process of slowly replacing fossil fuels with renewable energy sources could be eased by deploying CCUS, thus helping the region to reach its ambitious decarbonization target.

In Indonesia, Malaysia and Singapore, some CCUS projects are in early development stages. The Gundih Project in East Java, Indonesia, is regarded as the first Carbon Capture & Storage (CCS) pilot project in the ASEAN. The objective is to store around 3 Mt of CO_2 for 10 years from the Gundih Gas Field. Some studies criticize that such Carbon Capture & Storage (CCS) projects without utilization generate almost no revenues while requiring intensive capital investment.

Since most ASEAN member states are developing countries, costs could hinder the development of CCUS. Therefore, international financial support is needed to introduce CCUS in coal-fired power plants and industry. Increased gas and oil production using captured CO_2 could also reduce the cost of CCUS.

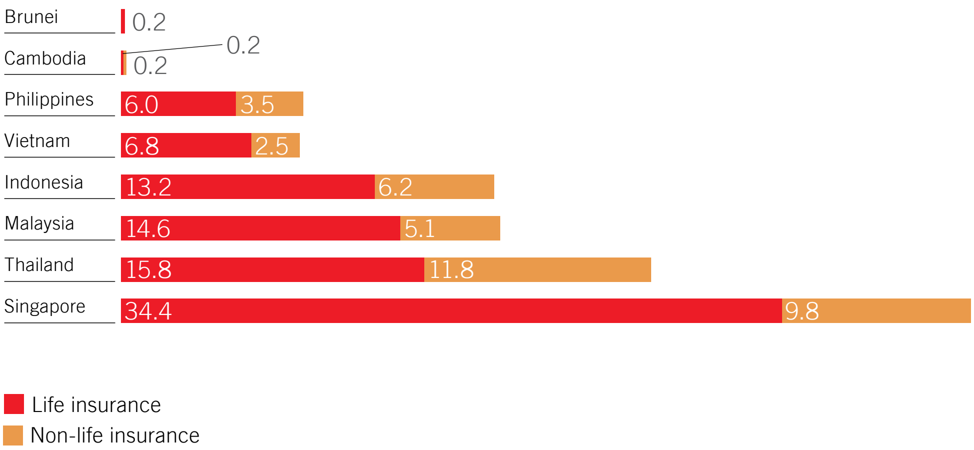
There are also concerns about public acceptance, given the safety issues associated with transporting or storing CO_2. With only pilot projects in operation, the technology needs to mature before it can be more widely deployed in the region. Given the expected significant increase in energy demand, the region currently relies on CCUS deployment of clean coal technologies to facilitate ASEAN's transition to sustainable development and meet its commitments under the Paris Agreement. Political support and government intermediation for energy transition and a low-carbon economy are essential to promote the transition of economies. Regional cooperation should also be strengthened through the development of a common regulatory framework in ASEAN for CCUS, including CO_2 trading mechanisms. To promote the development of CCUS in the region, carbon credits and carbon markets, including carbon price assessments, should be explored. Establishing such a regulatory framework will create an enabling environment and help attract the necessary investments.

ASEAN insurance to play key role in decarbonization

Singapore by far ASEAN's largest insurance market

In 2021, total ASEAN insurance premiums amounted to approximately USD 130 billion. At almost 70 % or USD 91 billion, life insurance had a much higher share than non-life insurance (30 %, USD 39 billion). At 42 %, the share of non-life insurance is relatively high in Thailand and Cambodia, while it is very low in Singapore (22 %), Malaysia (26 %) and Vietnam (27 %).

Chart 8: Selected ASEAN insurance markets, 2020/21 gross direct premiums, life and non-life business, USD billion

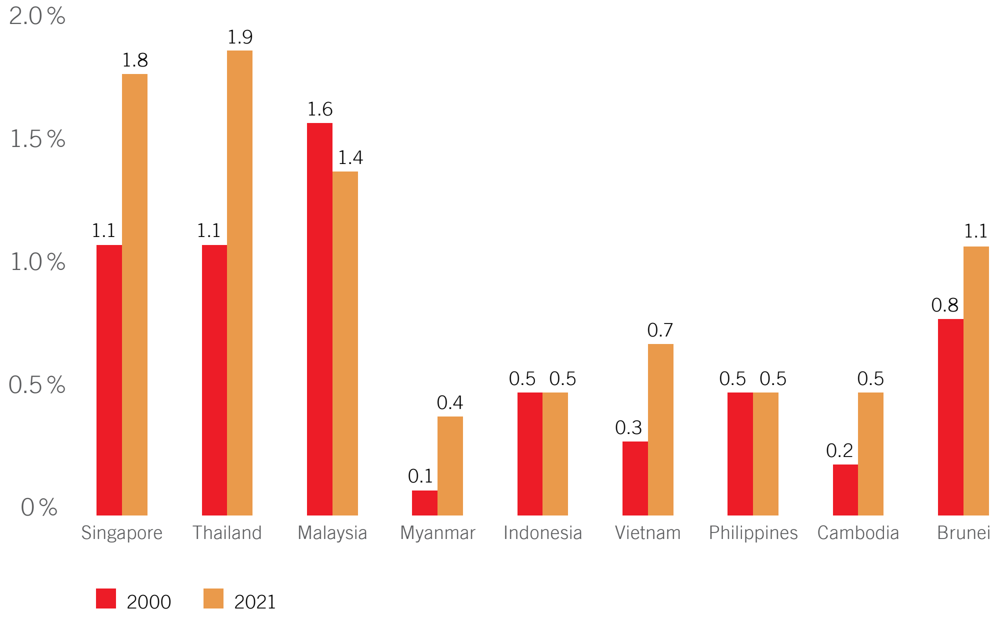


Source: Faber Consulting AG, based on Swiss Re Institute, sigma 4/2022, sigma-explorer.com

Insurance outgrew GDP in most ASEAN markets

Given the huge need for energy and renewable investment by 2050, governments and regulators together with the private sector should critically review their policies to create a more favorable environment for non-life insurance. From 2000 to 2021, non-life insurance grew faster than GDP in seven out of ten ASEAN markets. The Malaysian market was the only market where GDP grew faster than insurance, while in Indonesia and the Philippines, insurance and economic growth were close.

Chart 9: Non-life insurance penetration, selected ASEAN markets, 2000 and 2021

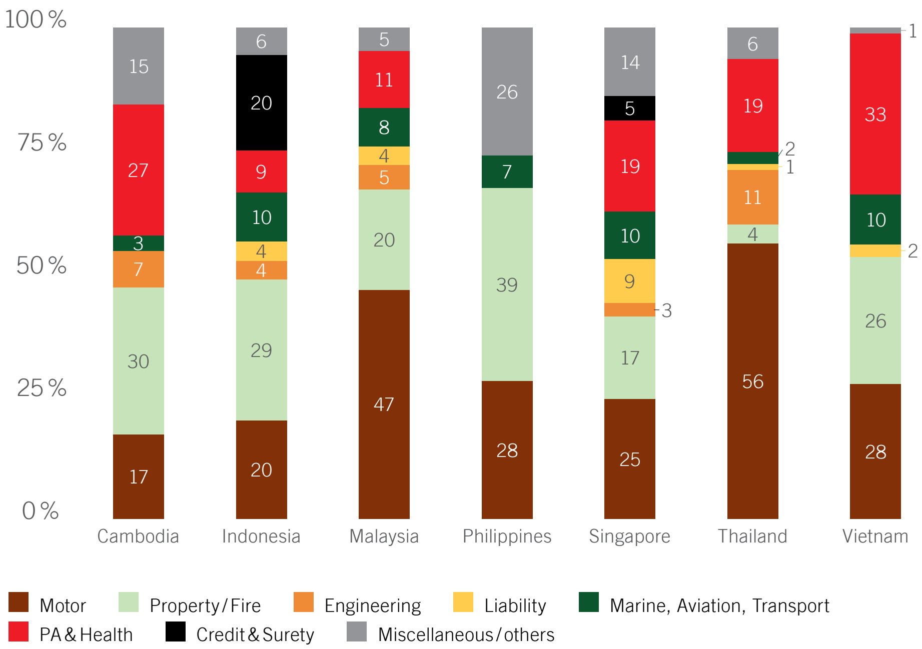


Source: Faber Consulting AG, based on Swiss Re Institute, sigma 4/2022, sigma-explorer.com

Motor, Health and Property/Fire are the largest lines of non-life business

Personal Accident (PA) & Health, Motor and Property/Fire are the most important lines of non-life insurance in the region. At around 50 %, the share of motor insurance is very high in Thailand and Malaysia, while Property/Fire is the largest line in the Philippines and Cambodia. In most ASEAN markets, the often most competitive lines of business, health and motor insurance, have a combined market share of approximately 50 %. In some markets, such as Thailand (75 %) or Vietnam (61 %) this share is even much higher.

Chart 10: Selected ASEAN non-life insurance markets, lines of business split, 2020/21



Source: Faber Consulting AG, based on regulatory data.

Insurance to play an important role in facilitating the decarbonization of ASEAN economies

As risk managers, risk takers and investors, the insurance industry has an important role in addressing environmental risks and opportunities as well as facilitating and financing the transition towards a low carbon global economy. Launched at the 2012 UN Conference on Sustainable Development, the UNEP FI Principles of Sustainable Insurance (PSI) serve as a global framework for the insurance industry to address environmental, social and governance risks and opportunities. To date, the PSI initiative is the largest collaborative initiative between the UN and the insurance industry.

Definition: Sustainable insurance[4]

Sustainable insurance is a strategic approach where all activities in the insurance value chain, including interactions with stakeholders, are done in a responsible and forward-looking way by identifying, assessing, managing and monitoring risks and opportunities associated with environmental, social and governance issues. Sustainable insurance aims to reduce risk, develop innovative solutions, improve business performance, and contribute to environmental, social and economic sustainability.

The following four Principles for Sustainable Insurance, including a list of possible actions, provide a common aspiration and global framework for the insurance industry to manage ESG issues:

— **Principle 1:** We will embed in our decision-making environmental, social and governance issues relevant to our insurance business

— **Principle 2:** We will work together with our clients and business partners to raise awareness of environmental, social and governance issues, manage risk and develop solutions

— **Principle 3:** We will work together with governments, regulators and other key stakeholders to promote widespread action across society on environmental, social and governance issues

— **Principle 4:** We will demonstrate accountability and transparency in regularly disclosing publicly our progress in implementing the Principles

A global reinsurance capacity crunch for fossil fuel to impact ASEAN's decarbonization strategy

In practice, these rather conceptually formulated principles already have very concrete effects, which also have very significant consequences in the ASEAN region, in particular for newly installed power installations. The two largest global reinsurers, Munich Re and Swiss Re, revised their underwriting and investment guidelines in 2022 as follows:

Munich Re

On October 6, 2022, Munich Re published its new Oil & Gas investment and underwriting guidelines: As of 1 April 2023 Munich Re will no longer invest in or insure contracts/projects exclusively covering the planning, financing, construction or operation of

- new oil and gas fields, whereas at 31 December 2022 no prior production has taken place or
- new midstream infrastructure related to oil, which have not yet been under construction or operation as at 31 December 2022 and
- new oil fired power plants, which have not yet been under construction or operation as at 31 December 2022

This applies to direct illiquid investments, primary, facultative and direct re-/insurance business. The same applies where such risks are contained or bundled in one cover together with other risks (e.g., existing oil or gas fields), when the cover is mainly designed to protect one or more of such new risks.

Furthermore, in its own listed equities & corporates portfolio, as of 1 April 2023, Munich Re will cease to conduct new direct investments in pure-play Oil & Gas companies. As of 1 January 2025, Munich Re will require a credible commitment to net-zero greenhouse gas emissions by 2050 including corresponding short- and mid-term milestones from listed integrated O&G companies with the highest relative and absolute emissions.

4 UN Environment Programme, Finance Initiative: https://www.unepfi.org/insurance/insurance/

Swiss Re

On March 14th, 2022, Swiss Re released an update on its policy covering its re-/insurance and investment activities for both oil and gas projects and companies:

— From 2023, Swiss Re will no longer individually re/insure or directly invest in new oil and gas field projects. In Swiss Re's own words, «It does not affect our short-term support of supply expansion from existing fields (incl. shale) that may be needed to adapt to changing demand patterns quickly».

— By 2030, Swiss Re's oil and gas re/insurance portfolios will only contain companies that are aligned with net zero by mid-century, as per the Science Based Target initiative (SBTi) or a comparable, credible third-party assessment. Swiss Re plans to have half of its oil and gas premiums coming from these companies by 2025.

— From July 2023, Swiss Re will no longer provide individual insurance covers for those oil and gas companies that are responsible for the world's 10 % most carbon-intensive oil and gas production.

— According to its latest annual report published in March 2022, Swiss Re is also planning to release an oil and gas exclusion policy for its treaty reinsurance in 2023.

Although the combined global oil & gas reinsurance market share of Munich Re and Swiss Re is estimated to be less than 20 %, it is reasonable to expect that many other global insurers and reinsurers will follow suit and revise their guidelines soon, as all members of the UN-convened Net-Zero Insurance Alliance (NZIA)[5] have committed to transition their insurance and reinsurance underwriting portfolios to net-zero greenhouse gas emissions by 2050. On the asset / investment side and on a global basis, many insurers have already taken significant steps to divest themselves of coal. By the end of 2020, at least 65 insurers with total assets of USD 12 trillion had committed to either divesting or making no new coal investments; an increase from USD 4 trillion in 2017.[6]

Insurance will play an important role in facilitating and financing the decarbonization of economies

Beyond offering discounts to encourage people to adopt carbon-friendly behaviors, insures can also support the transition to a sustainable and environmentally friendly economy by providing risk financing tools for new technologies, business models and instruments that reduce carbon emissions, such as renewable energy products, sustainable agricultural practices and carbon offset projects. Insurance is a key catalyst for economic activity across all sectors, and by rapidly developing product

5 The Net-Zero Insurance Alliance (NZIA) is a group of over 29 leading insurers representing more than 14 % of world premium volume globally.
6 Oxford Business Group (2019)

offerings for advanced low and zero carbon technologies, the insurance industry can facilitate and even accelerate the rapid adoption and scaling of climate solutions. New technologies with far-reaching societal impacts – such as carbon-infused cement, carbon capture and sequestration, and improved battery storage capacities – will require thorough risk assessments to become viable at scale. Insurers can use their risk advisory capacity to help accelerate the testing and deployment of such innovative and carbon-friendly technologies.

Renewable energy investment to create business opportunities

Globally, many emerging market regions need to mobilize and attract international investors to finance the transition to more sustainable and environmentally friendly economies, in particular through new renewable energy projects. For example, in Africa, over the next decade, annual investments of USD 15 billion in energy projects will be needed to meet the UN's Sustainable Development Goal #7 of universal access to reliable, affordable and sustainable energy by 2030. By comparison, the ASEAN region will require approximately USD 500–600 billion in renewable energy investments by 2050, as shown earlier in this report. In Africa, the newly established African Energy Guarantee Facility enables primary insurers to provide the targeted and cost-effective risk coverage investors and lenders seek, while reducing their own risk. A similar platform could be considered in the ASEAN region to provide political risk cover for new renewable energy projects and facilitate the necessary transformation of the energy sector.

The Africa Energy Guarantee Facility (AEGF) - First long-tenor political risk insurance to unlock USD 1.4 billion clean energy investment across Africa

The Africa Energy Guarantee Facility (AEGF) is an initiative launched by the European Investment Bank (EIB), Munich Re and the African Trade Insurance Agency (ATI). It is supported by German Development Bank KfW to increase the availability of long-term capital for the African energy sector through investment and trade insurance services.

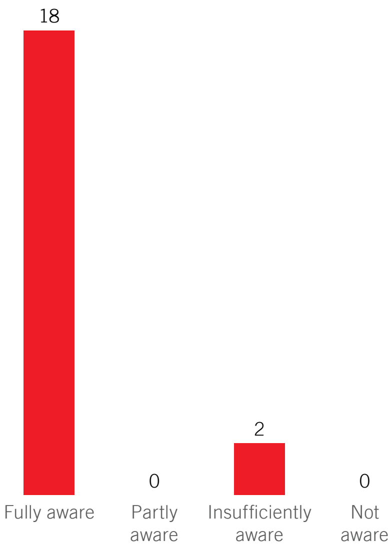
AEGF offers dedicated guarantees to support reinsurers in the provision of investment and trade insurance services for eligible energy projects. The guarantees cover against sovereign or sub-sovereign non-payment under a power purchase agreement, expropriation and breach of contract, currency inconvertibility, war, civil unrest and arbitration award default.

Eligible Insurers

Risks covered through AEGF will be underwritten by ATI with assistance from SRF Consulting, which is the examining institution of AEGF. Primary insurers must prove a significant track record in providing insurance to energy projects in Africa and must have sufficient capacities to provide solid underwritings.

Awareness and significance of the Paris Agreement

Chart 11: High awareness among ASEAN insurers for the Paris Agreement and its implications for their home country / economy (number of mentions)

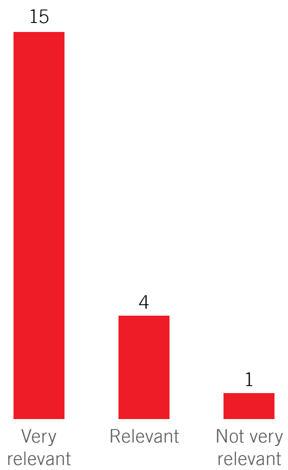


The ASEAN insurers are generally well aware of the Paris accord. The agreement which entered into force in November 2016, was signed by 193 parties (192 countries plus the European Union), among them all ASEAN countries. With the ratification of the agreement the ASEAN governments mostly passed the baton to their central banks with the request to oversee the implementation of the accord for the financial services industry. As a result, regulators are requiring their insurer to assess and report on the impact of climate related risks on their portfolios.

In addition, the region has experienced a steady increase in losses resulting from climate change. Heavy flood events, torrential rain, changes in the pattern of the monsoon season and more severe losses caused by tropical cyclones remind both population and the industry of the mounting damages and cost of climate change and the concomitant need to reduce carbon emissions.

Moreover, ASEAN insurers do not operate in isolation. The decarbonization of economies and the ESG framework are high on the agenda of international investors, corporations, insurers and reinsurers. As such, access to capital, clients, reinsurance capacity and ultimately also human resources requires ASEAN insurers to integrate this framework into the operations and regulatory frameworks.

Chart 12: Paris Agreement is regarded as very relevant by ASEAN insurers (number of mentions)



Environmental consciousness is no longer a matter of corporate social responsibility but an operational priority for the ASEAN insurers. This cuts right across the ASEAN region and not only concerns the more advanced insurance markets like Singapore and Malaysia or those with a high natural disaster risk, like Indonesia or the Philippines.

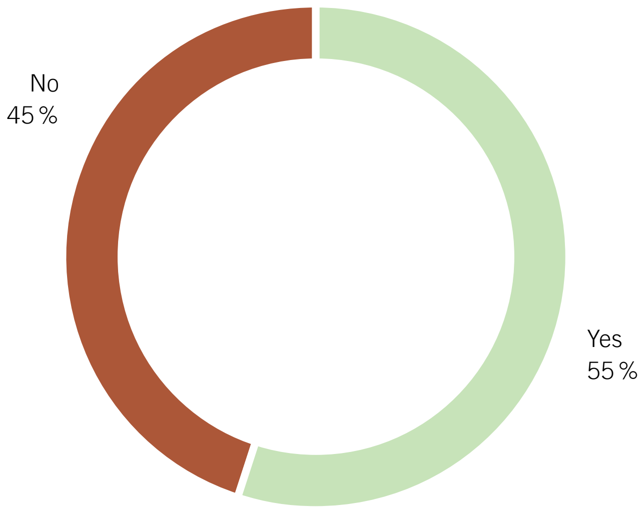
The degree to which the agreement and its transformation into national regulation or industry guidelines affects the region's insurers and brokers may vary according to markets. But faced with the rising frequency and severity of natural disasters, the ASEAN insurance executives do not question its relevance for their operation.

Rather, most of our interviewees acknowledge the need to move to a less carbon intensive business model – both due to external pressure and their own conviction. Currently most companies are in a process to determine how to best define and apply a strategy for their risks on both the asset and the liability side of their balance sheet. Local insurers demand a framework and taxonomy that will guide them in classifying their risks. The subsidiaries of international companies predominately follow the parameters defined by their parent company.

«With the flooding in December 2021 Malaysia experienced a 1-in-200 year event, which clearly put climate change on top of the agenda of our industry. We need to build on this momentum and drive forward a green agenda which will help to create additional jobs while reducing cost related by our current, more pollutant economic model. At Malaysian Re we have set ourselves ESG targets which we cascaded down from the Board and Top Management to our employees. For our underwriting strategy, we determined green energy targets for risks that we want to cover additionally and for those that we want to decrease. Likewise, we participate and administer commissions and committees to create coverage for green technologies such as the ASEAN Green Energy Pool as well as in building a flood pool to enhance the resilience of the B40 segment of Malaysia's population against catastrophic flood events, like last year.»

Zainudin Ishak, President & CEO, Malaysian Reinsurance Berhad

Chart 13: Majority of ASEAN insurers already considers the Paris Agreement and its potential implications for their business



«ESG is high on the agenda of policymakers who committed to the Paris accord and as such Bank Negara is currently in the process of implementing a framework for Malaysian insurers and our industry partners. As a leading institutional investor and risk carrier, the insurance sector is in a strong position to play a leading role in the decarbonization of our economy. However, we should expect this process to take several years as we define the rules and regulations for this transition.»

Antony Lee, Chairman of the board of PIAM

Most ASEAN insurers already have taken strategic steps to incorporate the Paris accord or ESG into their operations. However, interviewees admit that they still pursue a high-level approach which commits to a set of guidelines but has not yet been broken down to concrete actions.

At the forefront of companies following specific measures are often players with an international parent company that already has a plan in place for achieving climate neutrality or even net-zero emissions across its value chain by 2050 – as for instance those ASEAN insurers belonging to the net-zero insurance alliance.

However, while there is clarity at the group level about the general direction, on a national level, insurers still struggle to move beyond measures to reduce their own carbon emissions, which they can control themselves. The more complex issues refer to the initiation of emission reductions across the entire value chain, incorporating the asset and the liability portfolio.

Since a general taxonomy how to classify assets and liability according to a certain ranking or rating is still in the process of being developed in most markets, insurers agree on certain exclusion from their portfolio like coal fire power plants and which risks to include in their portfolio to improve their overall ESG rating. However, difficulties arise in how to best treat existing contracts and where to invest in building and strengthening a green portfolio.

Despite prevailing uncertainties, interviewees agreed that due to their large asset portfolios and the need for insurance to cover certain risks, the industry sees itself in a strong position to initiate the transition of the ASEAN countries towards a less carbon intensive economy. As such, even those that said they have no strategy in place yet, stated that they are currently working on a roadmap to define guidelines, targets and measures on how to improve their environmental rating. Others emphasized that they are waiting for their regulator to define the necessary ingredients but already practice a sustainability reporting or commit to the UN Sustainable Development Goals (SDGs).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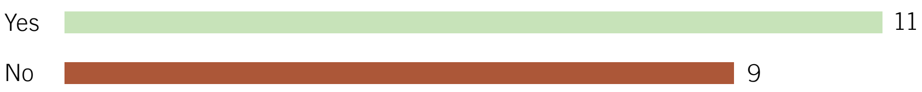
www.malaysian-re.com.my

Chart 14: Majority of insurers has already installed process and reporting procedures related to environmental standards (number of mentions)



A large share of ASEAN insurers already has processes and reporting procedures in place that reflect their approach to managing their environmental exposure. Many international insurers initiated their first sustainability reporting in the early 2000s and have continuously refined their procedures to measure and reduce the amount of resources they consume. Thus, neither the Paris agreement nor ESG present an entirely new subject, but rather add further urgency and gravity to established efforts. As such, some interviewees mentioned that environmental measurements and reporting has become an integral part of their annual report, rather than just a section in a sustainability report.

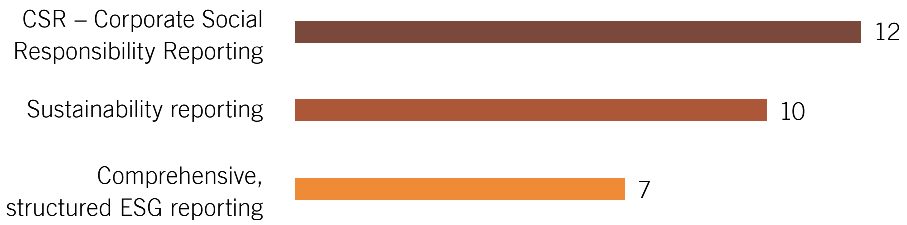
For emerging markets, the situation might be slightly different. Many remarked that procedures and reporting take place at group level of their parent company and as such they follow established procedures in their market. However, in the ASEAN region these processes predominately apply to the ecological footprint of insurers, but not yet to strategies with defined risks or assets an insurer will stop buying or underwriting – or rather, which assets and risks it will more actively invest in or write. This is a new dimension added by the ambitions to meet the Paris accord.

Furthermore, takaful insurers in markets like Malaysia are used to value-based intermediation (VBI), a concept rooted in value-based finance that was introduced as early as 2009 by the Malaysian Central Bank (Bank Negara Malaysia). The guidelines aim to promote real economic activities resulting in social and environmental benefits for stakeholders. The concept is thus not so different from the goals of sustainable finance, which is a predecessor of ESG. In that sense a takaful insurer stressed that a sustainability reporting as advocated by ESG is not so different from what they are already used to in complying with takaful insurance guidelines as the Value-based Intermediation for Takaful (VBIT) framework that takaful insurers apply to unlock the potential of a sustainable financial ecosystem.

«The Malaysian insurance & Takaful industry and Bank Negara Malaysia (BNM) as their regulator have made significant progress in establishing a comprehensive approach to ESG in recent years. For instance, BNM introduced the Climate Change Principle-based Taxonomy (CCPT) in April 2021. During the same year, the Malaysian Takaful Association (MTA) released a ‹Value-Based intermediation for Takaful› framework, which has ESG at its core. In addition, the BNM has been advising all the insurance and Takaful companies on improving the management of their climate-related risks as part of their annual composite risk rating. The insurance & Takaful industry is increasingly expected to actively participate in Malaysia's transition towards a less carbon-intensive economy.»

Marcel Omar Papp, Head Retakaful, Swiss Re Asia Pte. Ltd., Malaysia Branch

Chart 15: ASEAN insurers deploy various frameworks to report on environmental risks (number of mentions)



While only a minority of ASEAN insurers has yet established a structured ESG reporting, a majority of insurers interviewed has some kind of environmental screening and reporting in place. Some follow the Global Reporting Initiative (GRI), a responsibility reporting standard which dates back to 1997 and which helps organizations understand their impacts on economy, environment, and society including human rights.

Many insurers publish a Corporate Social Responsibility report which already tracks the environmental impact but also the social, philanthropic and cultural activities of a company – something that is also addressed by the social aspects measured in an ESG rating. In fact, several companies stressed that they report on their activities for those segments of society that have limited or no access to insurance coverage. These activities also form part of the social aspects in an ESG rating and may thus resolve once such a reporting has been initiated. As a further addition to environmental reporting, some insurers even disclose how they affect biodiversity and how they aim to minimize or improve their impact.

While many insurers see these reporting practices as part of their standard business operations, many emphasize that pressure from regulators, shareholders, rating agencies and in fact also employees has increased. It is thus for most insurers interviewed both an internal motivation as well as a requirement for external recognition to disclose and improve their company's impact on environment and society.

«The Indonesian Financial Services Authority OJK supports the implementation of ESG standards in the Indonesian economy and has already published several roadmaps and guidelines, such as the Sustainable Finance Roadmap Part 2, which addresses the period from 2021–2025. Furthermore, according to OJK regulations, annual reports need to address issues related to the governance, social and environmental responsibility of the company.»

Aziz Adam Sattar, President Director, PT Great Eastern General Insurance Indonesia

Impact on own operations

Chart 16: ASEAN insurers have yet to develop an investment strategy to facilitate decarbonization of their portfolio (number of mentions)

The ASEAN insurers are mostly in the process of developing criteria how to incorporate ESG in their operations. This applies both to their investment and underwriting strategies. The insurers, which are more advanced in their preparations, mostly point out that their investment strategy is decided at group level where guidelines and procedures have been developed to manage the ESG rating of the company. Typically, these insurers have set themselves a target when to achieve carbon neutrality or even net-zero green-house-gas emissions – an UN initiative signed by 29 global insurers or reinsurers representing more than 14 % of global insurance premiums.

Based on such a strategy assets and liabilities are screened and categorized according to their environmental impact and guidelines are determined how to integrate ESG into the investment or underwriting decisions to transition the entire portfolio towards the overall target of neutrality or zero emissions. That will include a set of investments which are earmarked to be increased, phased out or decreased and in which timeframe.

Concerning their investment portfolio, insurers stated that they aim to phase out of thermal coal, thermal power plant or coal cargo. By contrast, they also conform to increase renewable energy. Since the share of equities in insurers' investment portfolios tends to be low, changes also concern the bond portfolio where insurer want to expand their share in green bonds. However, insurers pointed out that often enough sovereign bonds make up the largest part in their portfolio. Therefore, their flexibility to determine a different allocation is limited. In addition, investment opportunities in green bonds or assets are still scarce and not necessarily fully transparent. Besides, green bonds do not necessarily provide the same return or credit factors as previously held conventional bonds.

Many of the insurers which said that they have not yet an ESG strategy in place, are nevertheless in some kind of preparatory phase. Regulators encourage the integration of ESG into investment and underwriting strategies. But clearly defined guidelines on how to categorize or consistently classify investments into those with a positive or negative impact on ESG rating are still missing. Again, takaful insurers confirmed that to them the classification of their investment portfolio is less of an issue as they are used to this process to conform to sharia compliance.

Opportunities and challenges for insurers related to investments in climate resilient and decarbonized critical infrastructure

The challenges in building up a climate resilient or ESG compliant investment strategy still outweigh the opportunities. Insurers see themselves as a key lever towards a less carbon intensive economy, given the industry's importance and size as an institutional investor. Although not all insurers feel comfortable with it or are sufficiently experienced, they still perceive themselves at the forefront to paving the route of the energy transformation by funnelling investments towards renewable energy projects, such as hydro, wind or solar energy, or to innovative technologies that enable a less carbon intensive economic model. Although the breadth of green investments it still perceived as narrow, insurer actually expect that this asset class might nevertheless generate robust returns, which could be more attractive than those coming from conventional asset classes.

In terms of challenges, insurers highlight that green bonds are a relatively new, small and not yet a clearly defined asset class. Thus far choices are limited and there are not enough green bonds to absorb a sizable shift of investments from conventional classes. This is particularly true for green investment opportunities within a given ASEAN country, not on an international scale. Besides, many ASEAN countries are fossil fuel producers or rely heavily on them for energy production. Hence, there is a strong reliance that insurers support these industries.

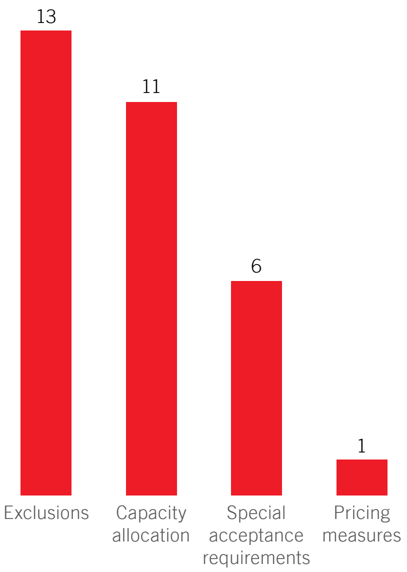
While government and regulators are clearly in favour that insurers drive the economic transition, they have not yet defined the necessary parameters for investments or liabilities. While taxonomies to classify the risks are still missing on a national level, international insurers might have drawn up their own classifications and need consistency across geographies for their investment strategies. These might not necessarily match national strategies which are still being developed.

«As there is a natural synergy and goal congruence between the Sustainable Development Goals (SDGs) and an Islamic economic model, the SDGs can provide a platform for Islamic finance to expand its ethical finance offering.»

Hj Sharildin Pehin Dato Hj Jaya, Managing Director and CEO, Takaful Brunei Darussalam

Underwriting

Chart 17: Underwriting measures deployed to facilitate a decarbonization / the implementation of ESG measures (number of mentions)



Since neither most insurers nor regulators have yet a clearly defined strategy or taxonomy on how to categorize liability risks, it comes as no surprise that most insurers see exclusions as the most advanced measure to transition their underwriting portfolio towards a higher ESG rating or level of decarbonization.

Most insurers agree that on the most widespread exclusions, such as coal fired power plants, the mining of coal, arctic drilling or animal testing. Although the ASEAN countries are largely fossil fuel exporters, the decision to reduce or phase out the underwriting of coal energy is fairly painless, as in several countries there are no further plans to build more coal power plants. Insurers are applying the exclusion to new risks, while at the same time they are considering how to expand programmes for established power plants.

To most insurers there is no question that they will support the current economy. Thus, they will not pull out of existing contracts on coal power plants but discuss with clients how to improve the performance of these plants. Some have set themselves specific targets to reduce coal energy to less than 5 % of their existing premiums and have already ceased to underwrite single plant policies. However, replacing the risks is not yet that easy. According to interviewees there are no hydrogen power plants yet in planning and solar plants are tighter regulated and small and grids are insufficient to connect them to the existing network.

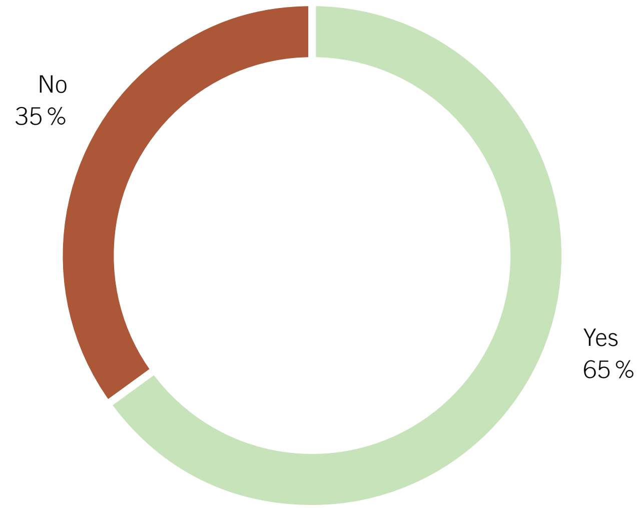
Similarly, capacity has already been tightly restricted for thermal power plants. Insurers have established scoring mechanisms, how they assess the risks of a client and how the client aims to improve its sustainability rating and will allocate capacity accordingly. But again, insurers are firm that they will not withdraw capacity from existing clients, but that they will continue to honour and support current contracts – also out of economic and social obligations, which they assess as equally important as environmental considerations. By contrast, insurers stated quite frankly that they see the ASEAN countries still as emerging economies that are heavily reliant on manufacturing industry with a high energy consumption. Nevertheless, in terms of special requirements some insurers have decided that risks with a strong environmental impact have to be escalated to an ESG committee or even to the CEO level to be approved.

Finally, some insurers have also set themselves targets in terms of how much of their overall capacity they will allocate to new or «green» risks such as renewable energy. They even try to incentivise the underwriting of «green» risks by providing pricing discounts. Also, motor insurers state that thus far they treat the few electric cars in the region just like conventional ones, although it becomes apparent that repairs of electronic cars tend to be more expensive than those of conventional vehicles.

«In January 2022, the Government of Cambodia has published a plan to achieve carbon neutrality by 2050. The country is steering away from coal-fired power generation and promoting hydro power development on the Mekong River as well as the use of solar energy. For us as an insurer, we are still waiting for legal and regulatory advice related to the implications of this strategy for the local industry. But we already had to recognize that it is almost impossible to obtain global reinsurance capacity e.g. for coal-fired power plants in Cambodia.»

Tio Soon Keong, CEO,
Campu Lonpac Insurance PLC

Chart 18: Reinsurers address decarbonization / ESG with their cedants



Reinsurers are an important driving force for the decarbonization of the ASEAN economies. The largest capacity providers are international reinsurers, many of whom have signed the UN Net-Zero Insurance Initiative. On a regional level, some of the smaller reinsurers are state owned and thus closely aligned with the carbon pledges that their governments committed to. As such, the region's reinsurers are keen to develop and implement a taxonomy and metric how to treat and classy different risks across the region.

According to interviewees facultative programs are easier to categorize because single risks are underwritten. Treaty business is perceived as more complex because of the bundle of different risks which are difficult to unravel or which the client might want to cede without taking the risks apart. Reinsurers also point out that it is more difficult for them to classify the risks according to their ESG impact, if they are far detached from the risk and not involved in its details or unable to influence risk profiles.

«Since 2020, Indonesia's insurance regulator OJK has required all financial services companies to prepare a sustainability report, either as a separate report or as part of the annual report. The sustainability report must also be published on the company's website.»

Christian W. Wanandi, President Director, PT Asuransi Wahana Tata and Secretary General of the ASEAN Insurance Council

Chart 19: Reinsurers have yet to introduce tighter terms and conditions, such as exclusions or special acceptances due to ESG / carbon footprint (number of mentions)

The region's insurers see a trend that their reinsurers have started asking more questions, raised the discussion about potential exclusions, have become stricter with their capacity, and even increased prices where they believed a program could negatively impact their ESG performance.

This affected particularly contracts, which included energy or coal power related risks. An insurer explained that while in the past, they had been free to underwrite power plants with several hundred megawatts of production, they now need a special acceptance from their reinsurer.

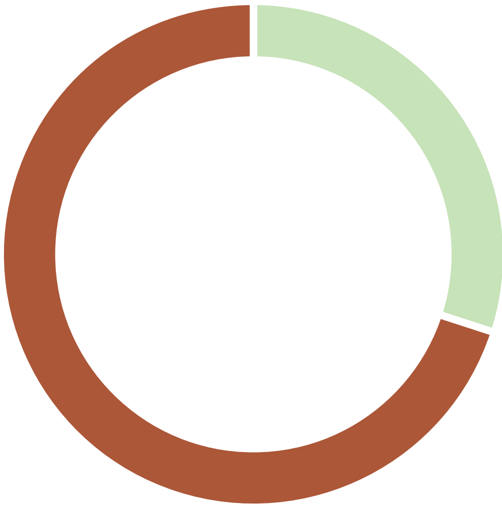
In addition, insurers remarked that currently their reinsurers are foremost interested to gain more transparency on the portfolios and the risks included. This process is also encouraged by the regulator, which in countries like Malaysia ask for a quarterly reporting on climate risk exposure. While most insurers see no strict actions coming from their reinsurers yet, some received pre-warnings that within a few years' time, capacity for high carbon risks will be reduced.

Likewise, reinsurers confirmed that cedants also confronted them with the question concerning their approach to ESG and how to jointly move forward the subject. In discussions with their retro-capacity providing reinsurers, however, they stated that ESG has not yet been a concern.

«In April 2021, Bank Negara has laid out a Principle-based taxonomy for the financial sector, which provides us with a clear direction on how to measure and act on the impact of climate change. For ESG these parameters have to be translated into behavioural change for both our underwriting and investment strategies. We now must define consistent categories for economic activities, which we test against our portfolios, assessing their impacts on our underwriting and investment performance with the aim to promote the transition to a low-carbon economy.»

Chua Seck Guan, CEO, MSIG Insurance (Malaysia) Bhd

Chart 20: Clients are not yet asked to report/disclose decarbonization/ESG related data (number of mentions)



A majority of insurers has not yet started to ask their clients to disclose the impact of their risk according to an ESG rating, as many players are still in the process to develop their own criteria how to classify the risks. However, the process is more advanced for facultative risks, where it is easier to evaluate the impact on a single risk basis.

Ultimately, insurers that already ask for disclosure want their clients to develop and implement a comprehensive risk management scheme to reduce their environmental risks or impact. Otherwise, premiums could rise – or even worse – exclusions loom.

«We integrate ESG screening, referrals and assessments through the Allianz Standard for Reputational Risk Management and group-wide underwriting standards. We also apply the ESG referral and assessment process and guidelines to unlisted proprietary investments.»

Thomas Wilson, Country Manager, President & CEO, Allianz Ayudhya Assurance

Chart 21: Insurers already disclose / report decarbonization / ESG data (number of mentions)

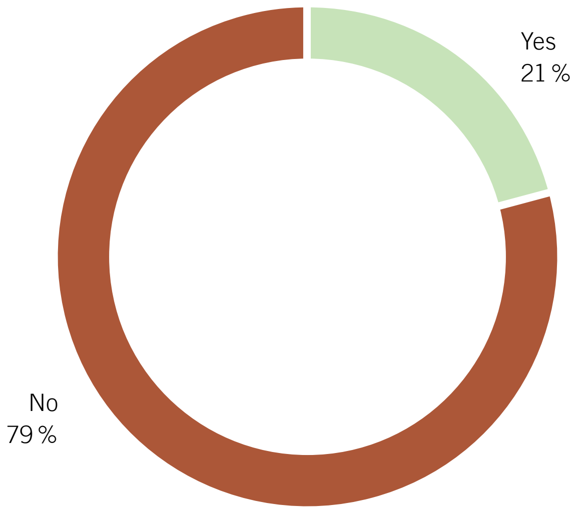
Many ASEAN insurers have some kind of reporting in place how they disclose their environmental risks, their impact on decarbonization or on an ESG rating. However, this does not necessarily mean that the reporting is public. Some insurers disclose this information to their regulator, as in the case of Malaysian insurers that follow a climate change and principle-based taxonomy (CCPT), first issued by Bank Negara in 2019 and further refined since then.

Other insurers have already disclosed their environmental risks or impact on decarbonization as part of a voluntary Corporate Social Responsibility (CSR) or a Sustainability report. They might start to transition this reporting now into an ESG reporting or consider integrating or taking up an environmental risk reporting as part of their annual report – thereby emphasizing the importance of this disclosure.

«As committed in the Paris Agreement at COP21 and recently in the Glasgow Climate Pact at COP26, the Government of Vietnam has begun to focus on a more sustainable and resilient growth path. In line with this, the government has implemented a decarbonization and energy transition project which aims to support decarbonization and energy transition in selected industrial sectors in Vietnam thereby contributing to the country's green growth and climate goals. This development will certainly also create new business opportunities for insurers.»

Tran Trung Tinh, Chief Underwriting Officer, BIDV Insurance Corporation (BIC)

Chart 22: ASEAN insurers do not rely on external support for their reporting / disclosing



Most ASEAN insurers use no external support to report on their decarbonization efforts and impact. Mostly their disclosure follows a format provided by their regulator, as for instance in the case of the Singaporean insurers, where the Monetary Authority requests a standard format or in the case of Malaysia, where insurers follow the CCPT disclosure. In most other countries insurers still await a reporting standard to be issued by their regulatory authority.

In terms of consulting support, some insurers collaborate with providers like the «Global Reporting Initiative», which provides an established standard for environmental and sustainability reporting. Others rely on their parent company and are keen to learn and adapt from global leader a standard to report their ESG risks.

«Insurers in Malaysia are aware of some of the agreements reached at COP 26. Bank Negara proactively raises these issue by requesting that insurers factor in the impact of climate change and natural catastrophes on their portfolio. Insurers are beginning to think about developing strategies on ESG, defining risk categories and eventually thinking about introducing an ESG score for policyholders. There is also added attention being paid to reinsurer's ESG statements. The implementation of these processes are expected to take some time, but eventually risks with a negative ESG score will find it more difficult to secure cover.»

Faris Davidson, Managing Director, Gallagher Re

Chart 23: ASEAN insurers develop new products related to climate risk adaptation and mitigation or environmental risks (number of mentions)

ASEAN insurers are already trying to take advantage of the business opportunities arising from the emergence of new technologies with less carbon emissions or less environmental impact than previous risks. Opportunities are perceived to be significant as the ASEAN region is seen to need a «green infrastructure». However, thus far demand is still limited. Insurance products may include renewable energy products or their manufacturing, derivatives, green energy pools as well as mass products like electric cars.

Currently most motor insurers still treat electric cars just like fuel powered cars, although premiums should reflect on average higher repair cost in case of damages. However, as in the case of Malaysia, motor insurance is still subject to a range allowed by the tariff and does not allow a full pricing according to risk profile. It does not yet matter, as only few electric cars are on the roads – but clearly, thus far they exhibit a higher risk profile.

For wind energy and solar panels regulators have to develop guidelines how to integrate their feed into the existing electricity network. Insurers develop credit products to guarantee loans issued for renewable energy investments. In many markets, property policies have to be refined or developed to cover hydro, solar or wind energy risks – although, according to some interviewees – early claims experience is discouraging as losses appear to be quite high or price are deemed unattractive by producers.

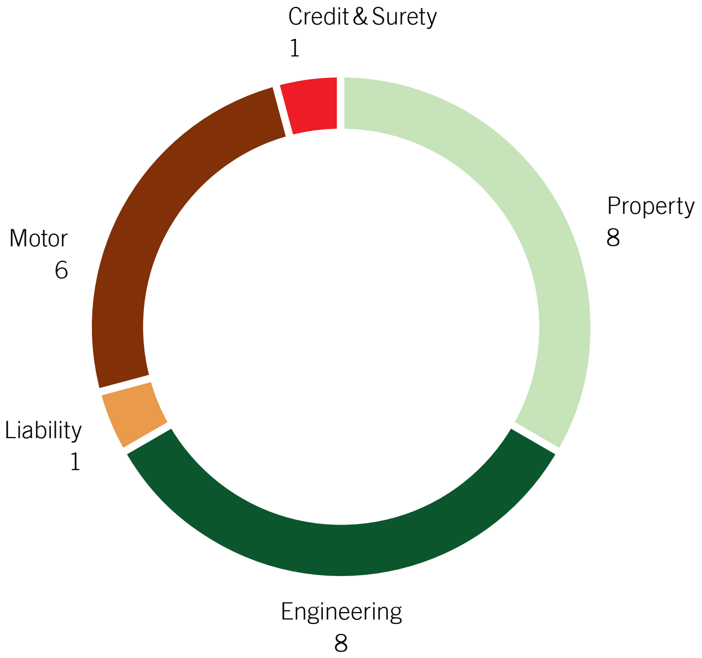
Insurers also introduce weather derivatives for renewable energy if for instance the envisioned wind or solar production falls short of expectations for a given period. Reinsurers are teaming up with partners to develop pool solutions, like the ASEAN Green Energy Pool, led by Malaysian Re to develop a parametric solution for property damages on solar panels.

New opportunities do not only arise due to green technologies, bringing novel risks to the table. Rising environmental risks may also require different or new products to deal with the rising losses of a deteriorating environment. Insurers are looking to improve agricultural insurance with parametric products to cover the growing impact from climate change. The same will be true for the increasing flood risk which causes higher losses but also creates opportunities for insurance cover.

«The COVID-19 pandemic delayed the start of infrastructure projects in the region, including in renewable energy and green economy initiatives. Therefore, while we are not yet overwhelmed by demand for cover for renewable energy risks, enormous Greenfield opportunities for investments into renewables and green infrastructure are emerging. One example is the Sun Cable project that intends to use a 4,200-kilometer (2,600-mile) high-voltage undersea cable to export power from a giant solar and battery complex in northern Australia to Singapore that is targeting a final investment decision in early 2024. Key markets, like China and India, have committed to build up a whole new infrastructure for renewable energy, from power generation to grids and energy storage. Over time, insurers will have to provide the specialist products to enable this the transition to a less carbon-intensive economy.»

Pavlos Spyropoulos, Regional Managing Director Asia, Tokio Marine Kiln Singapore

Chart 24: Lines of business, in which new products for climate risk adaptation and mitigation or environmental risks are developed (number of mentions)



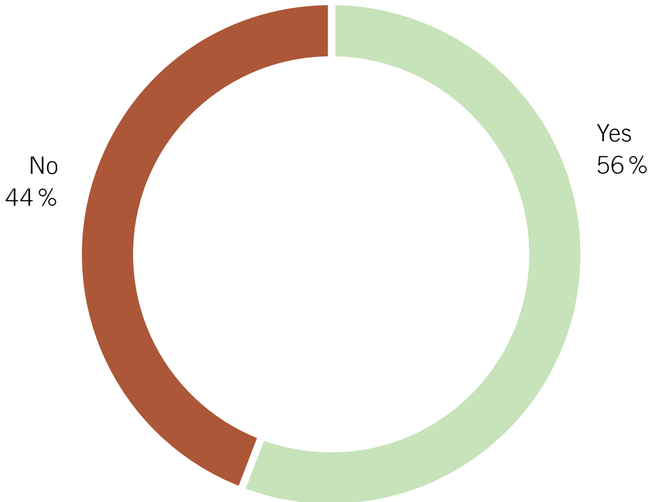
Property and engineering are the lines of business where insurers see most of the opportunities for growing insurance demand for climate risk or mitigation products. Property policies cover the risk of damage for renewable energy installations, like photovoltaic or hydro-energy, but also cover the rising climate risk related losses to properties.

Insurers expect engineering to benefit from rising power installations which will be far more small scale than conventional power plants, as in particular solar panels are often part of household or small fields of panels. Motor insurance will grow as the licensing of electric cars and their manufacturing in Asia picks up. Credit insurance is needed to guarantee loans and may also include the demand for weather derivatives.

«Four years ago, Myanma Insurance started offering drought index insurance to facilitate the mitigation of climate risk in Myanmar's agricultural sector. The demand for the product is high, and farmers have asked for coverage to be extended to other perils such as floods.»

Dr. Sandar Oo, Managing Director, Myanma Insurance and Chairperson, Myanmar Insurance Association

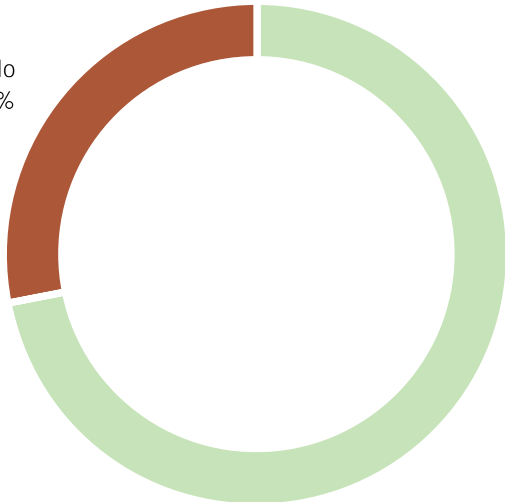
Chart 25: Increasing demand for products covering climate risk adaptation and mitigation or environmental risks



Insurers in ASEAN expect growing demand for insurance products that cover new risks in a less carbon intensive economy. However, as with most new product developments, demand is expected to evolve slowly. Thus far there are few electric cars on ASEAN roads or few solar panels installed on ASEAN roof tops. Currently, the market is rather supply-driven, as insurers remarked, but across all ASEAN countries demand will grow as more products become available or are produced locally – as it is already the case for photovoltaic installation in Malaysia.

Insurers also point out that investments have been pent-up due to the two COVID-19 years and hopefully will start picking up towards the end of 2022 or in 2023. However, geopolitical tensions, inflation and supply chain disruption may further delay the installation of new renewable products in the ASEAN markets.

Chart 26: Insurance can facilitate access to other climate finance products, such as loans



Our interviewees agreed that in general insurance will have to play a prominent role in facilitating the transition of the ASEAN countries towards less carbon intensive economies. As part of this task and based on their large balance sheets, insurers may also take an active role in funding this transition and providing loan to spur this conversion.

However, in most ASEAN markets the lending and the provision of loans is highly regulated as exclusively fully licensed banks have the authority to provide the financing. Unless on the investment side, where insurers provide capital in form of bonds, on the underwriting side they only get involved when insurance and banking products are combined, such as in agricultural insurance, where an insurance cover serves to guarantee credit.

«Nat Re perseveres to promote climate resilience through risk financing and insurance solutions. Through a joint initiative with the Philippine Insurers and Reinsurers Association (PIRA) and a few global reinsurance brokers, we helped the Insurance Commission update the minimum tariffs for earthquake, typhoon and flood property risks. The new schedule of tariffs, which will be effective on November 1, 2022, reflects rate variations by risk attributes such as location, occupancy, construction type and number of stories.»

Allan Santos, President, CEO, National Reinsurance Corporation of the Philippines

Measures to reduce own carbon footprint

When it comes to their own carbon footprint, most insurers are already quite advanced in reducing their emissions. The COVID-19 pandemic and the various containment measures around the globe have contributed to the reduction of emissions, but many programs had already been in place or initiated when the pandemic first hit in March 2020.

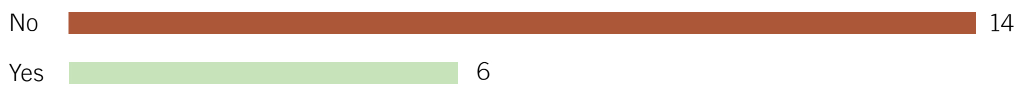
The pandemic was a major boost for the digitization of insurers, in particular in emerging markets. Often, just within days, employees were equipped with lap-tops to enable them working from home. Regulators accepted electronic signatures as a legal proof and thus many insurers – also in the ASEAN region made great progress in introducing a paperless office or even a paperless exchange of documents with clients and business partners.

As a result of COVID-19, business travel also had to be radically reduced. Conferences were no longer possible and client visits only took place when absolutely necessary. Many insurers vowed to not turn back the clock once the pandemic recedes.

Electricity is another major cause of insurers' carbon emissions and most interviewees confirmed that their companies have programs in place to improve the efficiency in electricity usage in their office buildings. Again, many insurers used the «work from home» phase to renovate offices and install new systems to reduce the need for cooling or heating as well as more energy efficient lighting and computing systems. Quite a number of insurers actually stated that they used the COVID-time to convert their offices into minimum energy or green buildings or they even moved offices as they also calculate with less work places then in pre-Covid-times, as more employees will be able to work from home. As part of these efforts, insurers also developed strategies to reduce their own waste or at least use resources more efficiently.

In addition, many insurers took further initiatives to reduce their overall emissions, largely helped also by an enhanced environmental consciousness of their employees, certainly due to the knowledge of the industry in which they operate, but also due to the increase in catastrophic events in the past years, often as a result of rising climate risk. Insurers vowed to plant trees to off-set their emissions, encouraged their employees to use more public transport for their daily commute and converted the company's fleet of cars to electric vehicles.

Chart 27: Are you supporting public sector carbon abatement initiatives (number of mentions)



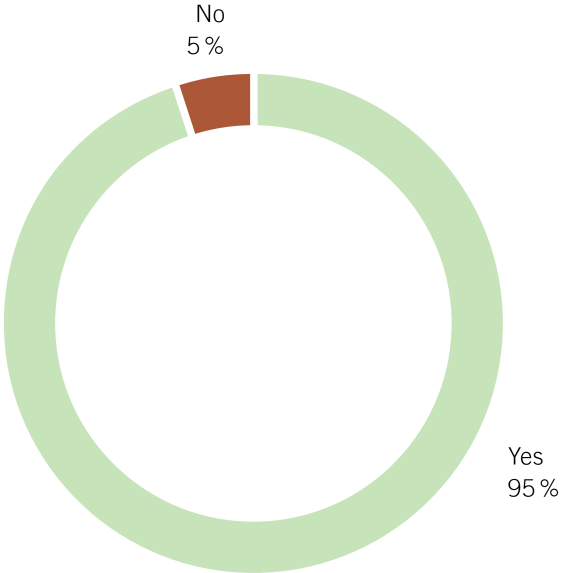
Few ASEAN insurers engage in advocacy and support public sector abatement initiatives. However, they collaborate closely with the public sector, namely their regulators to bring forward insurance initiatives that reduce climate risks of the wider public and expand their asset portfolio to support and fund public sector initiatives. Besides, insurers often share their knowledge and expertise to educate the public, industry and policymakers on the risks of further emissions to the environment and habitat.

Insurers and reinsurers collaborate in industry events to share their knowledge or launch green energy pools to facilitate the introduction of renewable energy or collaborate closely with the government to reduce systemic risks such as large-scale natural catastrophes. They also participate actively in national CSR initiatives such as planting trees or growing food and in programs to raise awareness for the causal relationship between carbon emissions and natural disasters.

«In July 2020, the National Council on Climate Change released the Brunei Darussalam National Climate Change Policy, including a commitment to increase the share of renewable energy to at least 30 % and the share of electric vehicles to 60 %. These commitments will certainly also create new business opportunities for insurers.»

Klaus Tomalla, General Manager, National Insurance Company Berhad

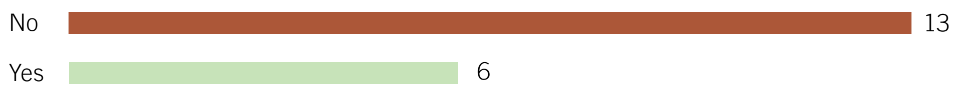
Chart 28: Regulatory authorities actively discuss ESG / decarbonization objectives and implications with their insurers



ASEAN regulators are a key driver, if not the main force promoting and encouraging an integration of ESG or decarbonization targets into insurers' operations and reporting. Malaysia and Singapore seem most advanced. In Malaysia the Climate Change and Principle-based Taxonomy (CCPT) was first issued in 2019 to facilitate financial institutions in assessing and classifying economic activities that contribute to climate change mitigation and adaptation. By now, Bank Negara requires insurers to regularly report on their climate risk and to undergo recurrent stress testing. Similarly, in 2022, the Monetary Authority of Singapore launched their guidelines on environmental risk management, expecting the country's insurers to closely monitor their exposure to market, operational, insurance and liquidity risks in case of a natural disaster.

Other regulators or insurance commissions consider recurrent forms of disclosure on climate risk, made the regulatory sustainability report a standard and asked to fill in questionnaires to gain transparency on the risks of their insurers. Often enough, associations act as mediators between insurers and regulators, asking their members to provide information on climate risks. And finally, an important driver, closely aligned with regulators and policymakers is the stock exchange, which also expects listed companies in certain markets to provide information on exposures.

Chart 29: Majority of ASEAN insurers are not involved in further research projects regarding ESG / decarbonization



The ASEAN insurers share their expertise of environmental risks with policymakers, regulator, clients, the wider public and also academia. Their knowledge is multiplied through insurance associations, commission and working groups of different levels of society and economy. According to our interviewees, research takes mostly at group-level, where resources are bundled, at the level of the risk modelling providers and mostly by the reinsurers which typically take a broader perspective on risks than primary insurers.

The ASEAN insurers confirmed that they mostly engage in committees, such as the ASEAN Reinsurance Committee, the ASEAN Green Energy Pool or the ASEAN Insurance Congress. They provide catastrophe modelling seminars or portfolio modelling services or collaborate with developmental banks like the Asian Development Bank to support a regional Disaster Risk Financing Project.

«Like many other Vietnamese listed companies, VINARE has made a strong commitment to ESG. We adhere to the GRI (Global Reporting Initiative) Standards to communicate and improve our sustainability performance.»

Nguyen Thi My Hanh, Deputy Manager, Marketing Department/Dao Manh Duong, Marketing Manager, Vietnam National Reinsurance Corporation (VINARE)

Exclusive Partner

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SUBSTANCE IS
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