



OUR PATH TO NET ZERO:

CHARTING A COURSE TO DECARBONISATION

MOVING FORWARD WITH YOU

Version 2.0

THANK YOU
FROM TOMORROW



ABOUT THIS DOCUMENT

This “Our Path to Net Zero: Charting a Course to Decarbonisation” Whitepaper (the Whitepaper) provides an overview of the approach and methodologies taken by CIMB Group Holdings Berhad (CIMB Group or the Group) to set our 2030 Net Zero targets (2030 Targets) and high-level transition strategies for selected highly carbon-intensive sectors that apply to CIMB Group and all its operating entities in all geographies. The work detailed in this Whitepaper was completed with support from Oliver Wyman.

Version 1.0 of this document was published in November 2023, focusing on targets of four sectors (Thermal Coal Mining, Cement, Palm Oil and Power). Version 2.0 of this document was published in July 2024, with two additional targets included (Oil and Gas and Real Estate) and no material changes made to the previous four sectors. Version 2.0 of this document supersedes Version 1.0. A detailed change log is included in the Appendix.

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FEEDBACK

We welcome all feedback, ideas, and questions from stakeholders on this document. Please contact: **Luanne Sieh**, Group Chief Sustainability Officer, CIMB Group.

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Executive Summary

Climate change is occurring at an unprecedented rate, resulting in devastating impacts that threaten lives and livelihoods globally, including in Southeast Asia (also known as ASEAN), one of the regions that is most vulnerable to the effects of climate change. The incidence of extreme weather events is increasing, and 2023 has seen the region ricochet between droughts, floods and record-breaking heatwaves. If global temperatures continue to rise at their current rate, ASEAN risks losing over 35% of its Gross Domestic Product (GDP) by 2050¹.

Conversely, a Net Zero future in ASEAN, which is rich in renewable resources, holds the potential to deliver economic growth and resilience, poverty alleviation and job creation, as well as energy security and affordability alongside the positive environmental impacts. Urgent action is required to secure this future, as the window to address climate change continues to narrow. Since the landmark 2015 Paris Agreement, governments globally and in ASEAN have made increasingly ambitious commitments. Progress is evident in the pace of technological innovation including an increasing support in regulatory policies.

However, addressing climate change is not the responsibility of the public sector alone. Carbon-intensive industries in the region must step up and adopt readily available and increasingly cost-effective low carbon solutions. In addition, banks can accelerate this process by supporting businesses to embrace low-carbon technologies and sustainable practices.

It is imperative that the path to a Net Zero future in Southeast Asia achieves a just transition compatible with inclusive growth in the largely emerging economies of the region. This involves navigating well acknowledged challenges specific to the region, such as dependence of economies on primary and extractive industries, the entrenched position of fossil fuels in the energy mix and the fragmented nature of agricultural production. A just transition requires bringing along the companies and communities who depend on these carbon-intensive activities for revenue and livelihood, to make the switch to sustainable alternatives or even drive new businesses that will underpin the Net Zero economy. Only then will Southeast Asia be able to establish a Net Zero future where the benefits are distributed equitably across society.

We aspire to be at the forefront of enabling a just transition in the markets we serve. We work closely with international and local working groups – including being a signatory to the Net Zero Banking Alliance (NZBA) – which allows us to share our experiences and adopt best practices and tools. In 2022, we were ranked in the top five banks globally (and top emerging market bank) for performance on sustainability in the World Benchmark Alliance (WBA) inaugural Financial System Benchmark and have won many Sustainable Finance awards² over the years, a testament to our continued commitment to providing innovative and market-relevant sustainable finance solutions.

Setting our 2030 Net Zero targets (2030 Targets) towards Net Zero by 2050 is an important milestone in our sustainability journey. In 2022, targets were established for the Thermal Coal Mining and Cement sectors, followed by targets for the Palm Oil and Power sectors in 2023. In this updated version of our Whitepaper, we are additionally announcing our targets for the Oil and Gas and Real Estate sectors. Our targets cover the majority of our financed emissions, and are designed to put us on the path to Net Zero financed emissions by 2050.

¹ Fabrice Renaud et al. (2021). Adaptation and resilience in ASEAN: Managing disaster risks from natural hazards, UK Government and UK-Singapore COP26 ASEAN Climate Policy Report Series.

² CIMB (2023). Our Awards.

In setting our 2030 Targets, we are mitigating the climate risks in our portfolio, and moving to establish our role in financing the activities that underpin the Net Zero economy of the future. More importantly, our plans to achieve these targets, as laid out in this Whitepaper, declare our clear intention to work closely with existing and new clients to develop, enable and accelerate their transition plans towards Net Zero. In supporting the success of our clients and their stakeholders, we are also securing ours.

In 2021, we were the first emerging market bank in the world to announce a commitment to exit Coal by 2040, in line with a 1.5°C scenario. In 2023 we became the first Malaysian bank to commit to 2030 Targets to decarbonise our material high-emitting sectors; starting with the Cement, Palm Oil and Power sectors, with the Oil and Gas and Real Estate sectors now added. Specifically, our target in the Palm Oil sector is the first globally for any bank, and we undertake it with conviction and optimism grounded in climate science, which has demonstrated that the adoption of sustainable practices, including halting deforestation, is effective in decarbonising the Palm Oil sector (see Section 6: Palm Oil Sector). To meet growing global demand, and with no readily available substitutes at similar cost, scale and efficiency³, sustainably produced palm oil will play an increasingly important role in achieving a Net Zero future. We are committed to working with our palm oil clients and other actors across the palm oil ecosystem to accelerate the adoption of sustainable practices and technologies.

Climate change is the existential crisis of our time and addressing it will require all parties to play their part in creating transformative change. At CIMB, we acknowledge the far-reaching impacts we have on the communities and clients we serve and are committed to using this influence for good. We have embedded sustainability into our decision-making process, and will continue to act with courage, conviction and in close partnership with our stakeholders to contribute to inclusive, equitable and sustainable development in ASEAN.

³ WWF (2015). Sustainable Sourcing Guide for Palm Oil Users: A practical handbook for US consumer goods and retail companies.

Contents

Executive Summary

1	Introduction	1
2	Summary of CIMB's 2030 Targets	5
3	Our Approach to Target Setting towards Net Zero	9
4	Thermal Coal Mining Sector	19
	4.1 Summary of Our Targets	19
	4.2 Industry Overview.....	20
	4.3 CIMB's 2030 Target in the Thermal Coal Mining Sector	21
5	Cement Sector	25
	5.1 Summary of Our Targets	25
	5.2 Industry Overview.....	26
	5.3 CIMB's 2030 Target in the Cement Sector	27
6	Palm Oil Sector	31
	6.1 Summary of Our Targets	31
	6.2 Industry Overview.....	33
	6.3 CIMB's 2030 Target in the Palm Oil Sector	37
7	Power Sector	47
	7.1 Summary of Our Targets	47
	7.2 Industry Overview.....	48
	7.3 CIMB's 2030 Target in the Power Sector.....	52
8	Oil and Gas Sector	57
	8.1 Summary of Our Targets	57
	8.2 Industry Overview.....	58
	8.3 CIMB's 2030 Targets in the Oil and Gas Sector	63
9	Real Estate Sector	69
	9.1 Summary of Our Targets	69
	9.2 Industry Overview.....	70
	9.3 CIMB's 2030 Targets in the Real Estate Sector	75
10	Taking Action	84
11	Glossary	87
12	Appendix	89

1 Introduction

The urgency and criticality of addressing climate change cannot be overstated. The Earth's climate is shifting at an unprecedented rate, resulting in devastating impacts such as rising sea levels, heatwaves, flooding, droughts, and a growing frequency and unpredictability of extreme weather events. Southeast Asia, with its densely populated cities and large coastal areas, stands out as one of the regions most susceptible to the impacts of climate change. Many of its economic activities are closely tied to industries sensitive to climate change, such as agriculture, fishing and tourism. A combination of geographic, demographic and economic factors makes climate change a critical threat to lives and livelihoods across the region.

The landmark 2015 Paris Agreement commits countries to limit the level of temperature rise to within 1.5°C of pre-industrial levels, necessary to reduce severe and irreversible impacts of climate change. Since then, regulatory and technological conditions have become increasingly favourable to change. Governments across ASEAN have been raising the ambition of their commitments, and the maturity of low-emissions technologies such as solar photovoltaics (PV) and power generation from agricultural waste biomass, have enabled policy makers to adopt increasingly supportive actions. However, there is still much work to be done to align policies to commitments and to ensure they can be effectively implemented to achieve Net Zero emissions by 2050.

ASEAN countries vary widely in their economic, political and social profiles, from more developed markets such as Singapore, to emerging economies such as Indonesia and least developed countries such as Cambodia. Southeast Asia is experiencing rapid economic growth and industrialisation, and balancing the need for economic development with emissions reduction puts increasing pressure on the pace of Net Zero transformation and the adoption of sustainable technologies and practices. For many ASEAN member states, navigating the transition requires contending with a number of region-specific challenges. Many countries in the region still rely heavily on coal and other fossil fuels as a source of energy and have to navigate issues around stability and affordability in the transition to low-carbon and renewable sources. In addition, the fossil fuel sector provides employment for an estimated four million people across Southeast Asia⁴.

Southeast Asia is also home to 15% of the world's tropical forests⁵, and sustainable land use practices and halting deforestation are key to achieving Net Zero. Land use change arising from deforestation is still one of the most significant sources of emissions in some ASEAN countries, while the forestry sector with its sequestration capacity remains a crucial lever for those countries to achieve their Nationally Determined Contributions (NDCs). Encouraging developments such as the establishment of permanent forests and peatland moratorium, as well as supportive forest protection and management programmes, have been put in place, notwithstanding practical challenges for effective implementation. These challenges must be addressed in the transition to Net Zero. Otherwise, existing socio-economic inequalities in the region may be exacerbated.

Beyond environmental sustainability, the pursuit of a Net Zero future holds significant benefits for ASEAN member states, including energy and food security, economic resilience and development, job creation and poverty alleviation. A just transition will require thoughtful navigation and balancing of environmental sustainability with socio-economic considerations, so that the benefits of Net Zero efforts can be distributed more equitably across societies.

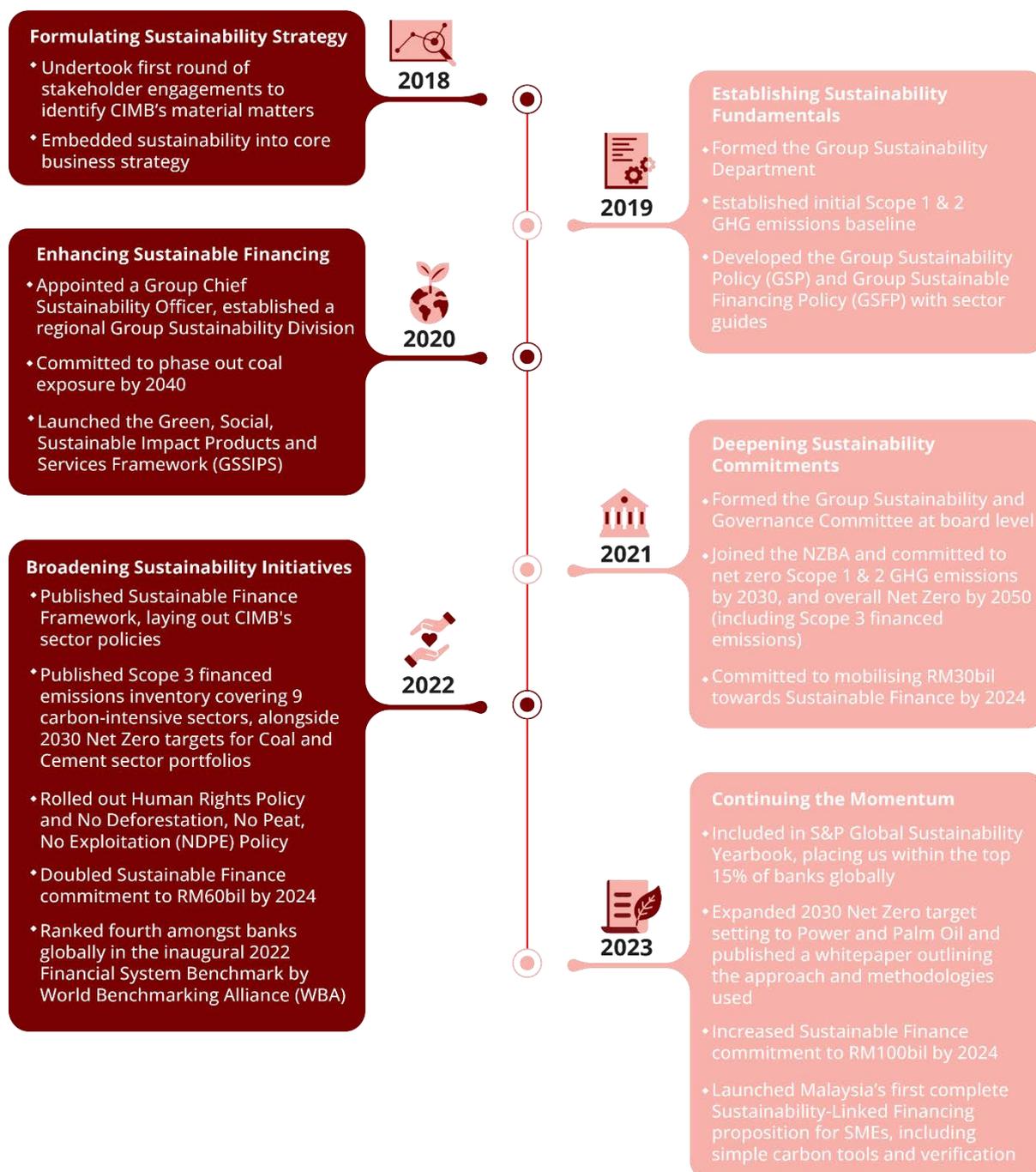
The window to address climate change is rapidly closing. In its sixth assessment, the Intergovernmental Panel on Climate Change (IPCC) has concluded that there is a more than 50%

4 IRENA (2023). Socio-economic footprint of the energy transition: Southeast Asia.

5 Estoque, R.C. et al. (2019). The future of Southeast Asia's forests. Nature Communications.

chance that global temperature rise will reach or surpass 1.5°C before 2040. All parties, including the public sector, businesses and financial institutions, must step up to accelerate the adoption of viable solutions available to us now to secure a future that is safe and conducive to life.

CIMB Group's sustainability journey, guided by a set of robust public commitments, reflects our holistic approach to sustainability, from reducing our carbon footprint to supporting our clients' decarbonisation and making positive social impacts. We are dedicated to creating a more sustainable and responsible future collectively with others.



CIMB Group has completed our Scope 3 financed emissions inventory for our total portfolio for four key operating markets (i.e., Malaysia, Indonesia, Singapore and Thailand) which collectively contribute to more than 95% of the Group's portfolios in terms of total assets and net income respectively.

In September 2022, CIMB announced our first set of 2030 Targets, beginning with the Thermal Coal Mining and Cement sectors. With the expansion of target setting to the Palm Oil, Power, Oil and Gas and Real Estate sectors in this Whitepaper, we have now set 2030 Targets for sectors which cover 47% of our total financing and investment portfolios and account for approximately 60% of our total portfolio financed emissions⁶. This marks a significant step up in our ambition and will reshape our financing approach and the way we engage with our clients.

Our objectives in establishing 2030 Targets

Play our part in delivering an equitable transition for ASEAN. We acknowledge the far-reaching impacts we have in our markets and to the organisations and the people we serve. For a region rich in renewable resources, a Net Zero future has the potential to deliver economic growth and job creation opportunities and increased food and energy security and resilience alongside its positive impacts on climate.

However, there is a real risk that transformative change, if not holistically considered, could exacerbate socio-economic inequalities in the region, where a population of 36 million people live below the poverty line⁷. In the region, micro, small and medium-sized enterprises (MSMEs) contribute to ~85% of employment and ~45% of GDP⁸. It is crucial that we support marginalised communities and MSMEs to ensure they are not left behind and excluded from the transition benefits. We are vested in supporting our communities to achieve an equitable transition to a Net Zero future, and to do so by calibrating our banking approach to support decarbonisation while also safeguarding and bolstering the region's capability to attain sustainable development and positive socio-economic outcomes.

Support our clients. Climate change readiness is quickly becoming a definitive criterion that organisations will be judged on. It is simply insufficient to view climate change as only a question of what an organisation's impact is on the environment. Organisations must now consider the impact of the environment and the climate transition on the resilience of their business and operations. At the same time, businesses must take climate adaptation actions to safeguard against impacts of increasingly frequent and severe weather events, sea-level rises and other climate consequences. More importantly, carbon-intensive industries are under increasing pressure to develop low carbon alternatives by adapting current businesses for the transition or in fact, developing new business models around transition-driven opportunities. Organisations that can define a compelling role in a Net Zero economy will emerge as winners in this radical and systemic transformation. Conversely, those unable to adapt will face risks of stranded assets and increasingly uneconomical businesses.

In setting our 2030 Targets, we are starting to differentiate between our clients on different stages of their decarbonisation journey, to better define how we can support them. For those leading in the transformation, we see an opportunity to innovate our financing and lending solutions to be fit for purpose in catalysing their transition activities and new businesses. For our clients who have not yet embarked on their sustainability journey or have not yet developed Net Zero plans, we aim to engage with them to increase the level of their ambition and to finance key enabling activities. We are committed to being an agent for change through active engagement and collaboration with our clients.

We acknowledge the entrenched position of fossil fuels in many of the markets that we serve and are convinced that our greatest impact lies in assisting our clients in decarbonising their businesses including through transition activities, rather than simply withdrawing from carbon

⁶ CIMB (2023) Financed Emissions Supplementary Report. Figures quoted are as of 31 December 2023.

⁷ UNDP (2017). ASEAN-China-UNDP: Financing Sustainable Development Goals in ASEAN.

⁸ The ASEAN Secretariat (2020). Development of Micro, Small, and Medium Enterprises in ASEAN.

intensive industries. However, we have also delineated clear boundaries to ensure our actions are aligned to the science that underpins the Net Zero transition. Our current financing prohibition for greenfield coal-fired power plants and thermal coal mining, or their expansions, our No Deforestation, No Peat and No Exploitation (NDPE) policy, and our additional commitment made in Version 2.0 of the Whitepaper from 1 January 2025 to not provide new dedicated financing for new oil field projects approved for development after 31 December 2021, are examples of where we have drawn such boundaries.

Embed organisational capabilities. Similar to our clients, Net Zero is also a risk management imperative for us. We will require new capabilities to respond to the emerging threats from acute and prolonged climate-driven physical risks as well as the threat of increasing regulatory and investor pressure and changing customer behaviours. Through the process of establishing our targets, we have taken a significant and foundational step in developing the right capabilities and strategies to navigate climate risks.

Grow with the transition. The Net Zero transition presents an unparalleled business opportunity for financial institutions. An estimated US\$1.5 trillion in cumulative investment is needed in the energy sector and the agriculture, forestry and other land use (AFOLU) sectors for ASEAN countries to fulfil their NDCs by 2030, including for renewable energy deployment, grid enhancement, accelerating nature-based solutions as well as building and scaling the carbon market. However, investments so far have fallen short at ~US\$ 5-6 billion per year⁹. The public sector will not be able to finance Net Zero alone, and broader capacity is required from banks to mobilise private investments towards viable low carbon technologies and sustainable practices, while also engaging closely with businesses to bring more projects up to bankable standards.

Our 2030 Targets provide a North Star to our financing, investment and capital raising activities, and allow us to align with and further accelerate the development of key growth areas in the transition.

⁹ Global Sustainability Innovation Centre (2023). Southeast Asia's Green Economy: Crack the Code.

2 Summary of CIMB's 2030 Targets

“ CIMB strongly believes that a just transition must be compatible with positive economic, environmental and social outcomes. While this transition presents a myriad of opportunities for businesses to grow, rapid change may also exacerbate socio-economic inequalities in the region.

Balancing inclusive development with broader environmental sustainability goals lies at the heart of our approach, to ensure that the wider benefits of Net Zero efforts can be distributed equitably across society. With sustainability being a key priority under our Forward23+ strategic plan, CIMB will continue to actively catalyse and drive the adoption of environmentally and socially responsible practices across ASEAN. ”

Dato' Abdul Rahman Ahmad

Group Chief Executive Officer/Executive Director, CIMB Group – Nov 2023

Key Design Principles of our Target Setting towards Net Zero

- **Aligned with a climate ambition of Net Zero by 2050:** We have defined our 2030 Targets to be consistent with the actions that carbon-intensive sectors need to take to meet decarbonisation trajectories towards Net Zero by 2050, which are required to keep global warming well below 1.5°C since before the industrial era. Science has demonstrated clearly that this is necessary to avert the worst impacts of climate change and preserve a liveable environment.

Net Zero by 2050 Alignment

We have aligned our climate ambition towards Net Zero by 2050 for all of our sector targets. For our Thermal Coal Mining, Cement, Palm Oil, Power, and Oil and Gas sectors, we have set 2030 Targets that are directly in line with respective reference pathways.

For the Real Estate sector, there are two distinct components to the pathway to Net Zero. First, buildings need to use less energy in their operations. Secondly, the energy that they consume must be generated from zero-emissions sources. Our 2030 Target for the Real Estate sector is fully aligned to Net Zero by 2050 for the necessary reduction in energy usage, which is within the control of our Real Estate clients.

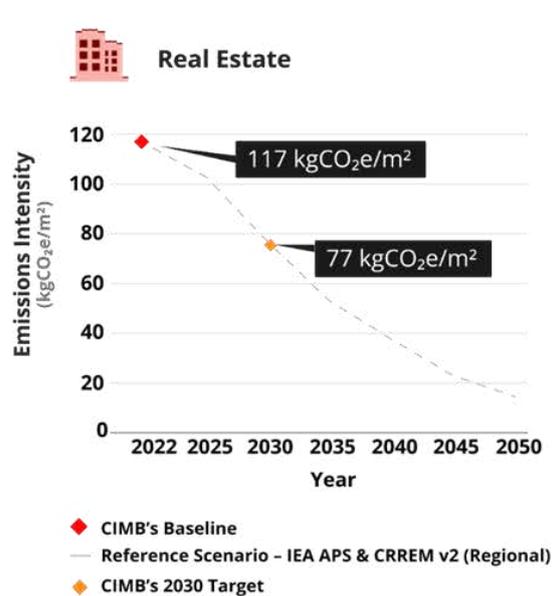
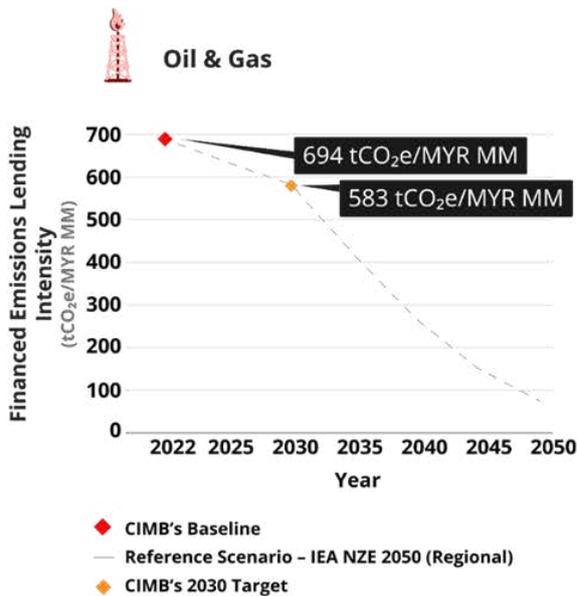
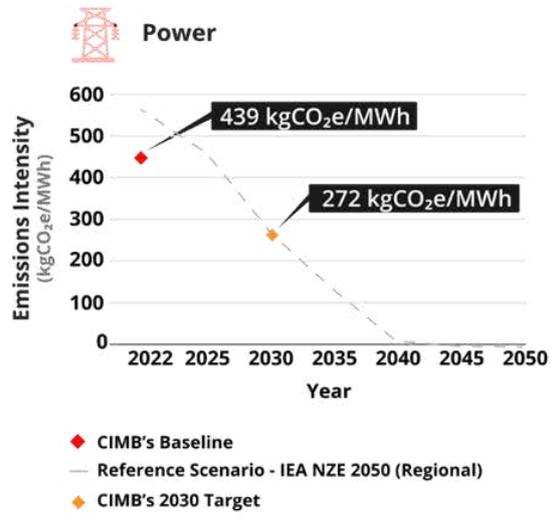
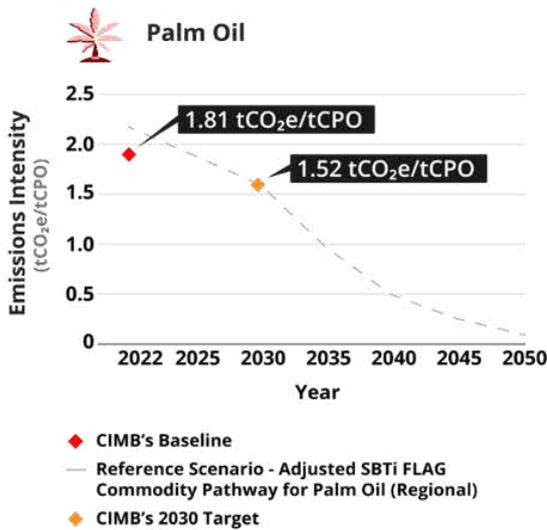
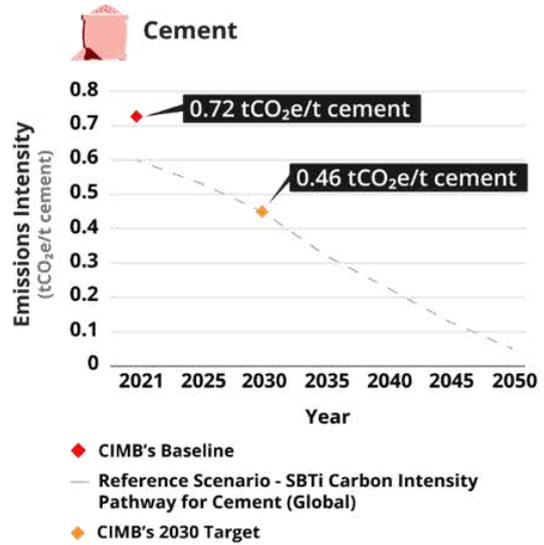
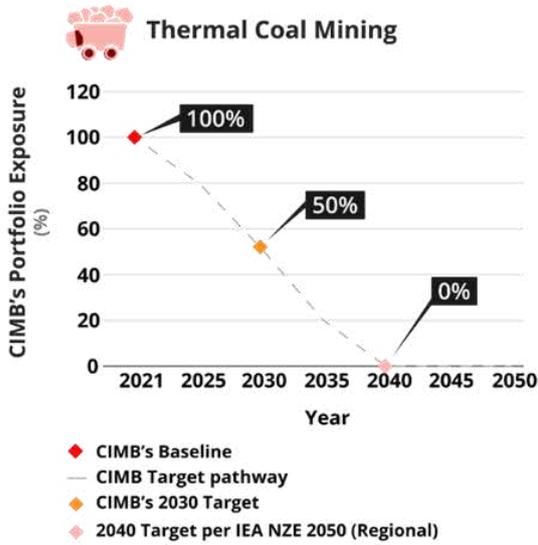
However, we have made a modification to the reference pathway to reflect a power grid decarbonisation trajectory in line with national commitments rather than assuming a Net Zero-aligned reduction in the power grid. Changing the generation mix of the national grid is beyond the control of our Real Estate clients. Therefore, we still consider our 2030 Target for the Real Estate sector to be Net Zero-aligned, as it will require buildings to become more energy efficient, ready to become fully Net Zero at a time when the power grid also completes its transition.

Note that this reflection of national commitments for the power grid in our Real Estate 2030 Target has no bearing upon our 2030 Target for the Power sector. Our Power sector 2030 Target remains fully Net Zero-aligned, and we will work with our clients to push faster than national commitments, where these are not yet Net Zero-aligned. The modifications that we have made to the reference pathway for our Real Estate sector are further outlined in Section 9 of the whitepaper.

- **Catalysing urgent action:** Average global temperatures have risen by ~1.2°C since the 1800s and continue to rise¹⁰. Our 2030 Targets provide us with immediate impetus and accountability to take urgent action. We will also continue to set periodic goals in the longer term to ensure we make steady progress towards a Net Zero by 2050 outcome.
- **Anchored on a science-based approach:** We have ensured that our targets are credible and set based on scientifically robust and well-accepted reference scenarios. While climate is an evolving science, we have chosen to act now based on best available knowledge. Where necessary, we will revisit our approach and targets as the science and reporting methodologies improve and scenarios adjust with the changing technological and regulatory context, or if relevant regional pathways are developed.
- **A just transition as an imperative:** ~90% of our revenue comes from emerging markets, where environmental sustainability goals must be pursued in tandem with inclusive economic growth and social development, and balanced against food and energy security as well as affordability. We have incorporated these considerations into our targets and reference scenarios by calibrating them to regional (and local) contexts where the science is available.
- **Achieving Net Zero in partnership with our clients:** Achieving a just transition requires active participation of carbon-intensive industries. As a financial institution, the most productive way we can enable the transition is by being a real partner to our clients, helping them with the task of decarbonisation, rather than shrinking away from our clients in hard-to-abate sectors. We also recognise the extremely crucial role that MSMEs play in our economy, contributing to ~45% of GDP in the region. As such, we are committed to continue our engagement and offer financing solutions, such as our recently launched Sustainability-Linked Financing for SMEs, to support relevant clients to increase their ability to measure their emissions and implement decarbonisation plans.
- **Focused on impact:** Our work in charting the course of decarbonisation is an ongoing journey. We have focused our initial set of targets on the most material sectors, where we can create an impact to decarbonisation by tilting the economic equation in favour of sustainable practices and technologies. We have also prioritised sectors based on our exposure and financed emissions. Within each sector, we have ensured that the scope of our targets covers the most significant sources of emissions in the value chain, and where we, and our clients, can have the ability to influence change.

¹⁰ IPCC, Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.) (2018). Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty.

Summary of our 2030 Targets towards Net Zero



Summary of our key design decisions

	Thermal Coal Mining	Cement	Palm Oil	Power	Oil and Gas	Real Estate
Target Metric	% of portfolio exposure	Physical emissions intensity, i.e. tonne of CO ₂ equivalent per tonne of cement (tCO ₂ e/t cement)	Physical emissions intensity, i.e. tonne of CO ₂ equivalent per tonne of crude palm oil (tCO ₂ e/tCPO)	Physical emissions intensity, i.e. kg of CO ₂ equivalent per megawatt hour (kgCO ₂ e/MWh)	Financed Emissions Lending Intensity (FELI), i.e. tonne of CO ₂ equivalent per million MYR of financing (tCO ₂ e/MYR MM)	Physical emissions intensity, i.e. kg of CO ₂ equivalent per m ² of gross floor area (kgCO ₂ e/m ²)
Parts of the Value Chain Included	Thermal coal mining	Cement manufacturing	Planting and milling	Power generation	Upstream exploration and production (E&P) companies, and integrated companies across all parts of the value chain	Developers, owner-operators and REITs across office, retail, hotel, industrial, and mixed building types
Client Emission Scopes Included	N/A	Scope 1 and 2 emissions of cement manufacturing clients	Scope 1 (including land use change related emissions and sequestration) and 2 of plantation, mill and integrated clients Scope 3 upstream (i.e. external sourcing of fresh fruit bunches) of integrated clients	Scope 1 emissions of power generation clients (including electric utilities, power plants, independent power producers, renewable energy producers)	Scope 1, 2 and 3	Scope 1 and 2 operational emissions from buildings
Asset Classes Included	<ul style="list-style-type: none"> Business loans/financing Investments held to maturity or available for sale including corporate bonds/sukuk and equities Facilitation of capital raising activities for clients including bonds/sukuk issuances and initial public offerings 					
Reference Scenario	IEA NZE 2050 (Regional)	SBTi Carbon Intensity Pathway for Cement (Global)	Adjusted SBTi FLAG Commodity Pathway for Palm Oil (Regional)	IEA NZE 2050 (Regional)	IEA NZE 2050 (Regional)	IEA APS & CRREM v2 (Regional)*
Baseline	100% (as of 2021)	0.72 (as of 2021)	1.81 (as of 2022)	439 (as of 2022)	694 (as of 2022)	117 (as of 2022)
2030 Target	50%	0.46	1.52	272	583	77
Targeted Change	50% reduction	36% reduction	16% reduction	38% reduction	16% reduction	34% reduction
Net Zero Plan †	No exposure to thermal coal mining by 2040 Prohibit financing of greenfield thermal coal mines and coal-fired power plants, including expansions, since December 2020	Align with reference scenario in 2030	Align with reference scenario in 2030	Align with reference scenario in 2030	Align with reference scenario in 2030 No new dedicated financing for the purpose of new oil field projects approved for development after 2021	Align with reference scenario in 2030

* Partially Net Zero by 2050 aligned, refer to Key Design Principles for Target Setting towards Net Zero for further information

† As 2030 approaches, we will set further interim targets towards achieving Net Zero by 2050

3 Our Approach to Target Setting towards Net Zero

We aim to be an effective enabler for a just transition in the region through supporting our clients in their decarbonisation journeys. Our targets are set to help to guide us towards this objective, taking into account the type of behavioural change that we can influence with our financing activities. We have considered these target-setting design decisions on a sector-by-sector basis, taking care to align the implications they have in the real economy with the actions required to achieve a just transition.

Our sector prioritisation approach

CIMB has set 2030 emissions reduction targets for six priority sectors: Thermal Coal Mining, Cement, Palm Oil, Power, Oil and Gas, and Real Estate. We have set 2030 Targets to spur near-term action, and we will continue to set periodic goals in the longer term to achieve a Net Zero by 2050 outcome. This is a firm demonstration of our desire to put our financing to work in the pursuit of Net Zero across all material sectors in our portfolio, and to meet our commitments and responsibility as a signatory to the Net-Zero Banking Alliance (NZBA).

We have been guided by the following principles in our prioritisation of sectors for target setting:

- **Criticality for Net Zero:** Sectors with the most significant contribution to global GHG emissions. For instance, coal-fired power plants are responsible for a fifth of global GHG, more than any other single energy source while power generation is responsible for ~36% of global GHG emissions largely through the burning of fossil fuels in conventional power generation¹¹. Oil and gas production and consumption accounts for approximately 41% of all global GHG emissions^{12,13}. This is especially pertinent in the ASEAN context where fossil fuels make up 77% of the primary energy supply¹⁴. The cement industry accounts for 7-8% of global GHG emissions¹⁵, while that figure is 22% for agriculture and related land-use change emissions¹⁶. Decarbonisation is critical in all six of the sectors where we have set targets, and within our portfolio, these sectors approximately contribute around 59% of our financed emissions¹⁷.
- **Relevance to ASEAN and to CIMB:** Sectors that are socio-economic pillars for ASEAN and material in the CIMB portfolio.
 - The ASEAN region is rich in coal resources, with Indonesia a top five coal producer globally, and significant coal production also occurring in Vietnam, the Philippines and Thailand. Coal mining not only contributes to energy security and affordability in many markets across the region, but it can also make up a significant percentage to provincial GDP due to its geographic concentration. For example, the International Labour Organisation (ILO) estimates that coal mining contributes 31.5% and 19% of GDP in the Indonesian provinces of East and South Kalimantan respectively. Mitigating socio-economic impacts on workers and surrounding communities, such as through

11 IEA (2023). Coal Market Update.

12 IEA (2023). World Energy Outlook 2023: Emissions from Oil and Gas Operations in Net Zero Transitions.

13 Our World in Data (2020): Sector by sector: Where do global greenhouse gas emissions come from?

14 IEA (2022). Southeast Asia Energy Outlook 2022.

15 UNEP Global Environmental Alert Service (2010). Greening Cement Production has a Big Role to Play in Reducing Greenhouse Gas Emissions.

16 Anderson, C. et al. (2022). Forest, Land, and Agriculture Science Based Target-Setting Guidance.

17 CIMB Group's Sustainability Report (2023) CIMB Group's Financing and Investment Exposures, and Absolute Emissions by Sector (including Rest of Sectors). Figures quoted are as of 31 December 2022.

diversification plans, is an important part of the transition away from thermal coal mining¹⁸.

- The Cement sector plays a vital role in infrastructure development, with production and consumption largely concentrated in Asia. Vietnam and Indonesia are among the top 10 producers of cement globally, while elsewhere in ASEAN, significant cement markets exist in Thailand, the Philippines and Malaysia. Our targets are focused on reducing the emissions intensity of cement production, enabling the sector to meet global demand while reducing emissions and supporting economic development in tandem with decarbonisation objectives.
 - Palm oil is a major commodity in Southeast Asia, with more than 85% of total production originating from the region to serve global demand¹⁹. It forms the most significant portion of our agriculture portfolio and is a sector that has come under increasing global scrutiny and pressure to decarbonise. Hence, we have chosen to focus on palm oil for our current target setting efforts in agriculture.
 - The Power sector is one of the most critical enablers for the functioning of our economy and society. In ASEAN, power generation is still largely dependent on fossil fuels, including thermal coal, which is the most carbon-intensive among all fossil fuels. The energy transition will require a switch to low carbon and renewable alternatives while maintaining energy security and affordability.
 - The Oil and Gas sector plays a crucial role in enabling the socio-economic development of the ASEAN region, as a dominant source of energy and a creator of economic multipliers through jobs and business opportunities. In Malaysia, the energy sector contributes approximately 28% of GDP and employs 25% of the total workforce.²⁰. ASEAN faces well-acknowledged structural challenges in striking a balance between energy security, affordability and sustainability as the region navigates through a just transition. In particular, natural gas is likely to play an important role as a transition fuel to reduce the reliance of ASEAN's power sector on coal.
 - The Real Estate sector forms a material portion of our exposure. Rapid urbanisation and increased prosperity from economic growth in ASEAN are driving an increase in demand for building floor space and energy consumption. Real Estate developers and owner-operators have an active role to play in driving energy efficiency gains, further electrification of buildings and increasing access to renewable and low-carbon energy. However, the Real Estate sector depends heavily on decarbonisation of the grid-power supply to achieve its own decarbonisation targets.
- **Readiness of key decarbonisation enablers:** Across our priority sectors where we have set targets, sustainable practices are becoming increasingly economical, though they differ in timelines to achieve widespread commercial scalability. Coal-fired power generation needs to be replaced with low-carbon and increasingly economical renewable sources, while socio-economic impacts to workers and communities dependent on the Coal sector, including in coal mining, must be mitigated through reskilling and redeployment efforts. Decarbonisation of the Oil and Gas sector largely relies on longer-term pivoting to cleaner fuels (e.g. biofuels, green hydrogen) as well as emissions-reduction technologies (e.g. CCUS) which will take time to reach commercial readiness to scale. In the Cement sector, solutions such as clinker substitution and use of alternative fuels are gaining traction, while emerging technologies such as CCUS are expected to unlock further decarbonisation in the longer term. In the Real Estate sector, advancements have been made in developing energy efficiency technologies as well as on-site clean energy generation solutions, but decarbonisation will nevertheless hinge significantly on

18 Global Energy Monitor, Ryan Driskell Tate, Dorothy Mei, Tiffany Means, and Satomi Sugaya (2023). A Scraping by: Global coal miners and the urgency of a just transition.

19 FAOSTAT (2000-2021). Food and Agricultural Organization of the United Nations.

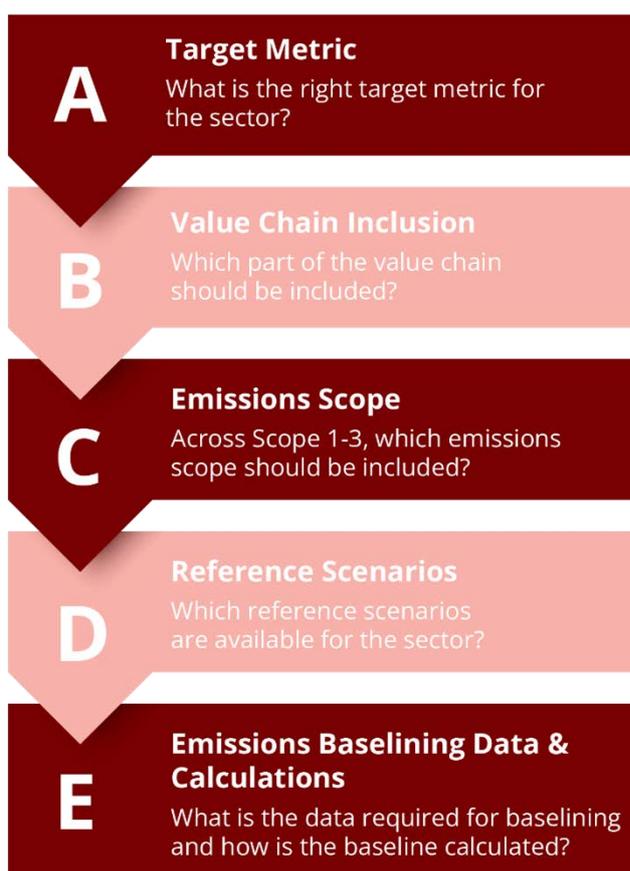
20 Ministry of Economy, Malaysia (2023). National Energy Transition Roadmap.

decarbonisation of the power grid. We observe rapidly shifting regulatory policies and/or customer preferences in these priority sectors, creating an increasingly supportive environment for decarbonisation, giving us a practical path forward to effect real change.

- **Availability of methodology and data:** Sectors that have credible science-based pathways, and where a foundational level of data readiness exists in our portfolio. In sectors where climate science and emissions reporting are more nascent, such as Palm Oil and Real Estate, we have prioritised the use of best available information in advance of having perfect data, to respond to the urgency of climate change and start being a catalyst for decarbonisation.

Key design decisions in our approach

For our target setting towards Net Zero across all our prioritised sectors, we have adopted a common approach with a series of five key design decisions at their core, with the key goal of driving real world decarbonisation outcomes.



Design Decision A: Target metric selection

With a projected GDP growth per annum of over 5%, ASEAN is set to become the fourth largest economy in the world by 2050²¹. A Net Zero future in Southeast Asia has the potential to foster economic resilience and deliver socio-economic benefits to communities throughout the predominantly emerging markets of the region. To achieve this, a just transition is required, which balances sustainability goals with societal and economic development. In many of our target sectors, this would mean increasing levels of activity and output to meet the growing demand in the region. As such, the majority of our sector targets are based on emission intensity metrics, which allow for social and economic development in tandem with decarbonisation objectives. We will actively facilitate our clients' ability to meet growing demand while simultaneously reducing emissions.

We have chosen to take a different approach to the Thermal Coal Mining sector. The phase-out of coal as a source of energy is critical to keeping global warming below 1.5°C, and we have aligned our commitments with science-based pathways, including the IEA's Net Zero Emissions by 2050 (NZE 2050), to phase out financing of thermal coal by 2040. We have set a target to reduce our exposure to thermal coal mining by 50% by 2030 and have put in place relevant financing prohibitions since 2021 to support the transition.

²¹ ASEAN Secretariat (2021). ASEAN Development Outlook: Inclusive and Sustainable Development.

Design Decision B: Determining value chain inclusion

Our targets cover large industries with complex and interconnected value chains, which involve multiple activities that contribute in different ways to the eventual outputs and the associated emissions. However, not all activities contribute equally to emissions and in our priority sectors, the most significant sources of emissions typically reside in a single or small number of activities within the value chain. While we finance a diverse profile of clients and activities across the value chain, we have ensured that our targets are focused on the most carbon-intensive activities, so that they are relevant and impactful.

We have also examined the value chain to determine where our sphere of influence lies over the emissions from these activities. In many cases, the companies involved in these carbon-intensive activities are also the key decision makers over what sustainable technologies or practices to adopt and the pace of adoption, through which they can steer the extent and pace of decarbonisation. For example, in the Power sector, the burning of fossil fuels for power generation is the most significant source of emissions, whereas emissions associated with transmission and distribution (T&D) and retail are low. Furthermore, pure T&D companies and retailers have little influence over the source of generation for the electricity they receive. Power generation companies, including large integrated companies, are hence the focus of our target in the Power sector, ensuring we strive to align our financing to the most significant emissions reduction potential through the activities that we finance.

While our initial set of targets focuses on the most relevant parts of the value chain, we will look to expand our scope of coverage in future. In the meantime, we will continue to work with companies engaging in activities across the value chain in our priority sectors, including where we have not set targets, to support their decarbonisation activities.

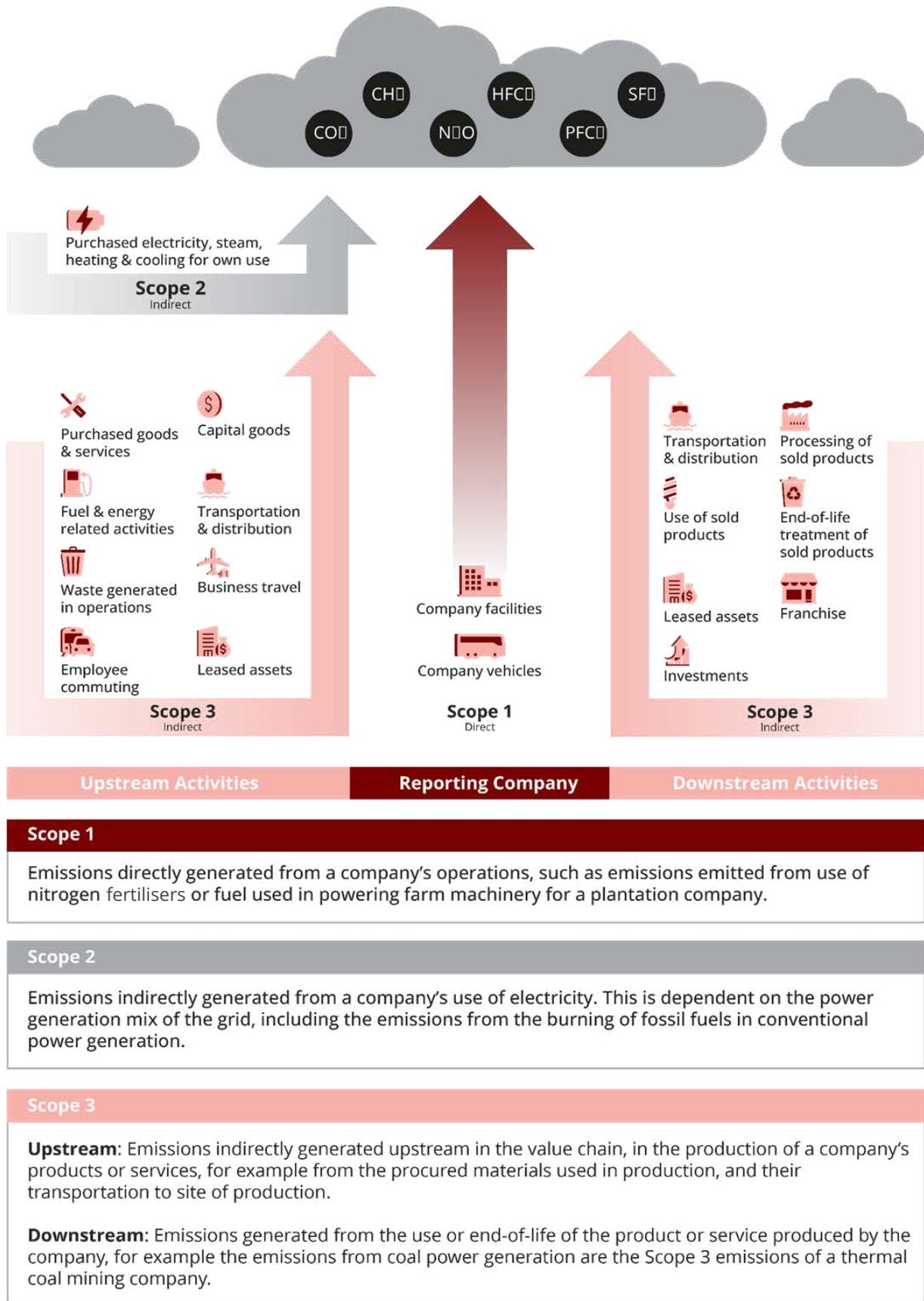
Design Decision C: Determining the emissions scope boundary

We establish the emissions scope boundary for our sector targets based on the most carbon intensive activities from the perspective of our clients in the focus areas of the sector value chains (as discussed under Design Decision B). Hence the emissions scope boundary will vary by sector and the part of the value chain that has been included.

For example, in our Palm Oil sector targets, we have included the Scope 1 and Scope 2 emissions of our plantation and mill clients. For our clients with integrated operations across plantations and mills, we have also included their Scope 3 Upstream emissions from the procurement of Fresh Fruit Bunches (FFB) from independent smallholders. This reflects the materiality of emissions arising from the establishment of planting areas, including areas used by independent smallholders in the cultivation of oil palm. With Scope 3 Upstream coverage included, we are minimising sources of leakage in the emissions accounting, and reflecting the need for smallholders to be included in the transition. Meanwhile, in our Oil and Gas sector targets, we have included Scope 1, 2 and 3 emissions of our in-scope clients, given the materiality of Scope 3 emissions through the combustion of oil and gas.

We tackle coal-related emissions in both our Thermal Coal Mining and Power sector targets, with our financing prohibition policies applying to both greenfield thermal coal mining and coal-fired power plant (CFPP) development and expansion, while our Power sector emissions intensity reduction target also ensures we are focused on working with our clients to reduce their dependence on coal-fired power generation.

Figure 1 Definition of Scope 1, 2 and 3 Greenhouse Gas Emissions (adapted from Greenhouse Gas Protocol)



Design Decision D: Selecting an appropriate reference scenario

We have anchored our 2030 Targets in line with Net Zero by 2050 by considering a range of economy-wide Integrated Assessment Models (IAMs) and sector-specific pathways which have been developed and maintained by research institutions and global industry organisations, and are aligned to limiting global warming to 1.5°C since the pre-industrial era. We have made reference to scenarios that are guided by science and have wide acceptance by climate scientists, regulators and industry.

Our selection of reference scenarios is done on a case-by-case basis for each sector. IAMs simulate emissions from all sectors and geographies and ensure they stay within the acceptable carbon budget required for decarbonisation. Nonetheless, models from different providers do have different focus points, making it challenging to reference all of our sector targets to a single IAM.

The IEA NZE examines the full spectrum of energy issues including coal, oil, and gas supply and demand, renewable electricity technologies, electricity markets, energy efficiency and much more, to lay out cost effective and economically productive pathways to a Net Zero energy system. Therefore, in line with many other financial institutions, we have anchored our Thermal Coal Mining, Power, and Oil and Gas sector targets to the IEA NZE to establish a consistent narrative across these energy-related sectors that are part of significantly overlapping ecosystems.

In the Cement sector, emissions from clinker production account for the bulk of emissions in the value chain, with a combination of CCUS technologies, clinker alternatives and fossil fuel substitution as the main emissions reduction drivers. Meanwhile, in the agricultural sectors, including the Palm Oil sector, land use change-related emissions are the most significant driver of emissions, with 80% of the mitigation potential of land use change emissions coming from halting deforestation²². Due to these unique factors, the rate at which these sectors can decarbonise may differ from the overall rate of decarbonisation possible by society as a whole. We have therefore chosen to anchor our reference pathways in the Cement and Palm Oil sectors on the commodity-specific pathways used by the Science-Based Targets initiative (SBTi), as they are underpinned by these sector-specific and significant sources of emissions and drivers of decarbonisation.

The Carbon Risk Real Estate Monitor (CRREM) has developed a 1.5°C pathway specifically for the Real Estate sector, with version 1 released in 2020 and an updated version 2 in 2022 with significantly steeper decarbonisation trajectories, which we have referenced. CRREM provides differentiated pathways for different building types in different geographies. This ensures that the pathways are sensitive to differences in emissions between markets caused by the composition of local power grids and energy use for heating and cooling due to climatic conditions, as well as differences in energy use between types of building due to fundamental differences in their operations.

We have also considered the characteristics of the region that we operate in and have sought to adopt pathways for each sector that are most relevant to the markets that we operate in, to facilitate a just transition. For example, in the Power sector, while Southeast Asian governments are adopting increasingly supportive policies to accelerate renewable power generation, the pace of the transition is likely to be slower in the region due to our power system today containing more young coal-fired power plants (CFPPs) than in other regions, and the rapidly growing demand for power to support development. In the Real Estate sector, our clients have limited control over the speed of decarbonisation of the power grid, but fully control the pace at which they can increase their energy efficiency to reduce their use of grid-power. We have incorporated these insights in our reference scenarios, adjusting the reference pathways where necessary, to acknowledge the

²² Anderson, C. et al. (2022). Forest, Land, and Agriculture Science Based Target-Setting Guidance.

different starting points and shape of the transition arising from the unique circumstances of the region we serve.

Design Decision E: Establishing our baseline

In most of the markets and sectors that we operate in, detailed sustainability-related reporting remains a largely voluntary practice. However, there are positive developments on the horizon that are accelerating the coverage and quality of emissions reporting. The emergence of the International Financial Reporting Standards Climate-related Disclosures (IFRS S2) and its inclusion of Scope 3 reporting requirements, growing regulatory support for Taskforce on Climate-Related Financial Disclosures (TCFD) adoption in many jurisdictions across ASEAN, and the emerging government guidelines and infrastructure designed to assist private companies and SMEs in voluntary ESG reporting provide a positive environment for the state of emissions reporting in ASEAN to continue improving.

However, in advance of consistent and widespread emissions reporting, we have used a combination of sources to establish our baseline financed emissions. We prioritised directly reported data and bottom-up asset estimation, before falling back on sector and country proxies were required, in line with Partnership for Carbon Accounting Financials (PCAF) guidelines. Our data sources include:

- Company-reported emissions data, sourced directly from our clients' climate disclosures such as sustainability reports, and from established independent databases.
- Asset-level information where relevant. For example, in the Power sector, established databases on power generation assets including capacity, operating status, and type of fuel used, enable us to better determine emissions at the power plant level. This allows us to more specifically identify the emissions associated with power generation, where aggregated data from company reporting may not.
- Proxies based on sector and country averages where data is unavailable. The proxies we have used are grounded in rigorous scientific literature. Where our baseline has a larger dependency on the use of proxies, such as in the Palm Oil and Real Estate sector, we have also consulted with some of our clients, standard setters, and other relevant organisations in the ecosystem, to ensure their acceptance and appropriate use.

Concurrently, we will also engage with our clients to improve the coverage and quality of reported data, allowing us to replace the use of proxies with more accurate information. We are cognisant that this may cause our baseline to fluctuate, and particularly in the Palm Oil and Real Estate sector where current reported data coverage is relatively lower compared to other sectors and have included a degree of conservatism in our use of proxies to account for expected movements as our clients expand the coverage of their reporting.

Our sectoral baseline for each sector is simply an aggregation of our client data across the sector. For the majority of sectors, our baseline emissions intensity is calculated through an exposure weighted average of our client's emissions intensities. For Thermal Coal Mining sector, as our target is simply to reduce and eventually phase out financing by 2040, we have used 2021 exposures as our baseline and will reduce our financing to 50% of our baseline level by 2030.

Defining our targets and charting a course to Net Zero

At the core of our targets is an aspiration to align our portfolio to the relevant reference scenario by 2030, and to continue to decarbonise in line with the reference pathway through to Net Zero in 2050. Our 2030 Targets provide us with the impetus to act now and do what we can, such as directing our financing towards accelerating the adoption of commercially viable low-emissions technologies and practices. In the longer term, achieving Net Zero will require nascent technologies to reach commercial viability and scale, and we will ensure our financing remains supportive to these critical developments.

We have assessed the necessary levers required to get us to our targets in our priority sectors and ensure that we have a feasible and actionable plan to deliver on our ambition. The course to achieving our targets requires an activation of a variety of levers to shape our portfolio, including but not limited to:

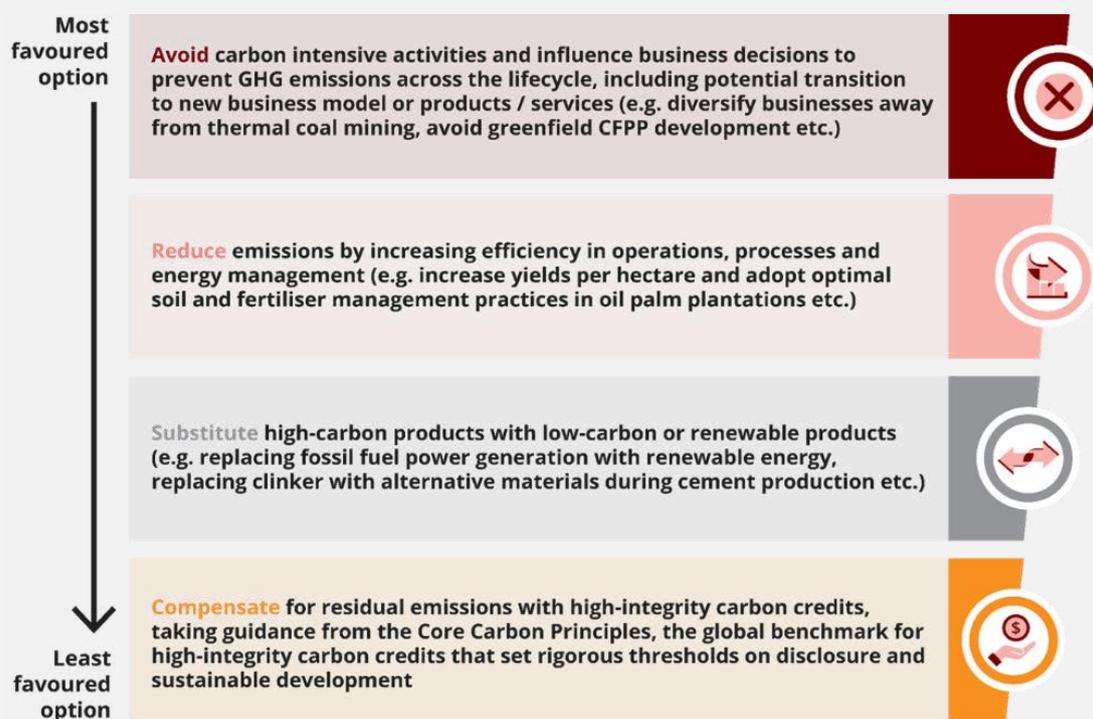
- Strict adherence to CIMB Group's current sustainability policies, such as our financing prohibition for greenfield coal-fired power plants and thermal coal mining projects and expansions, our NDPE policy and other sector expectations laid out in our financing policies²³.
- Actively supporting our clients to deliver on their existing sustainability commitments by channelling financing to specific activities, while encouraging and enabling them to develop and achieve Net Zero-aligned²⁴ decarbonisation goals and adopt more sustainable practices.
- Engaging our clients that have not yet set targets to develop and progress on a plan to deliver reductions in emissions intensity (or direct emissions, in line with our target metric).
- Where sustainability reporting is still nascent, encouraging our clients to improve the quality, consistency and coverage of their reporting.
- Reshaping our portfolio, by actively increasing our exposure to clients who share our decarbonisation philosophy, and to the low-carbon or zero-emissions alternatives required for the transition to a Net Zero world, such as renewable power and sustainable palm oil.
- Engaging other major supply chain actors in our portfolio to exert their influence, such as with our real estate developer clients in signalling and creating the necessary demand for more sustainably produced cement.
- Proactively working with policymakers and regulators including the central banks and industry networks in the regions we operate in, such as the Joint Committee on Climate Change (JC3), International Sustainability Standards Board (ISSB), as well as the CEO Action Network, to encourage alignment towards a Net Zero 2050 ambition to drive positive change as markets and technology mature, and regulatory environments.
- Continuously ratcheting up our policies in carbon-intensive sectors to ensure they continue to become more supportive.

²³ CIMB (2023). Sustainable Finance Framework.

²⁴ ASEAN Secretariat (2021). ASEAN Development Outlook: Inclusive and Sustainable Development.

The role of carbon credits

Our approach to supporting our clients in their decarbonisation journeys adheres to the Carbon Management Hierarchy (CMH)*, which was devised to assist companies in prioritising actions to minimise GHG emissions.



We support our clients to develop, implement and accelerate science-based and credible decarbonisation strategies towards Net Zero. In our priority sectors, our reference pathways have specified key levers to achieve Net Zero that involve avoidance, reduction, and substitution actions. Therefore, our primary objective is to encourage and facilitate our clients' efforts to take these critical actions, such as:

- In the Thermal Coal Mining sector, curtailing greenfield thermal coal mining and CFPP development, or expansions.
- In the Cement and Palm Oil sectors, increasing production efficiency and/or decreasing carbon intensity per unit of production through adoption of sustainable practices and technologies.
- In the Power sector, substitution of carbon-intensive power generation with low carbon and renewable alternatives.
- In the Oil and Gas sector, transitioning away from fossil fuel production towards low carbon fuels such as biofuels and hydrogen.
- In the Real Estate sector, improving energy efficiency through retrofits of the current building stock and ensuring new developments adhere to energy efficiency standards.

Additionally, high integrity carbon credits are an important part of the global solution to Net Zero, and companies can optionally adopt their use as part of a comprehensive decarbonisation strategy to compensate for hard-to-abate or unavoidable residual emissions and even to go beyond carbon neutrality. In the usage of carbon credits, we encourage our clients to take guidance from the Core Carbon Principles (CCPs)[†], the global benchmark for high-integrity carbon credits, and to disclose the role of carbon credits in their decarbonisation strategy and progress in line with best practices.

* Institute of Environmental Management and Assessment (2009). GHG Management Hierarchy, a policy guide

† The Integrity Council for the Voluntary Carbon Markets (2022). The Core Carbon Principles

Beyond the activation of such levers, our ability to achieve our targets is ultimately contingent on the realisation of existing client and government commitments, and our progress towards our 2030 Targets may be non-linear. Therefore, we have been and will continue to engage with our clients, relevant policymakers, standard setters and industry bodies to actively contribute to the realisation of these goals. Nonetheless, we are confident that our 2030 Targets are ambitious yet achievable, and that we have charted a concrete path to get there.

Monitoring and reporting our progress

We will report on our progress towards these targets regularly as part of our sustainability disclosures. This includes tracking our performance against the targets committed, and analysing the movements against previous years, to explain the progress we have made towards achieving our targets.

Climate science is dynamic and evolving at pace. There may be changes year-on-year including the emergence of new or updated climate scenarios, the development of more rigorous GHG accounting protocols and the establishment of more accurate benchmarks, which could lead to some volatility to our baseline emissions reporting and our reference pathways. Barring any major changes in the science and underlying data, we intend to maintain the consistency of our 2030 Targets in order to report on our progress with clarity. As we approach 2030, we will look to set new targets for every five years thereafter in line with NZBA guidelines.

“ CIMB’s 2030 decarbonisation targets marks a significant milestone toward realising our long-term Net Zero target by 2050. These interim targets demonstrate our accountability and reinforce our commitment to facilitating a just transition across ASEAN.

By breaking down our long-term goal into actionable and measurable milestones, we are paving the way for tangible progress. While we implement proactive measures to address climate risks in our portfolio and promote sustainable finance practices, CIMB remains committed to support and empower our clients in transitioning to more sustainable business practices. ”

Gurdip Singh Sidhu

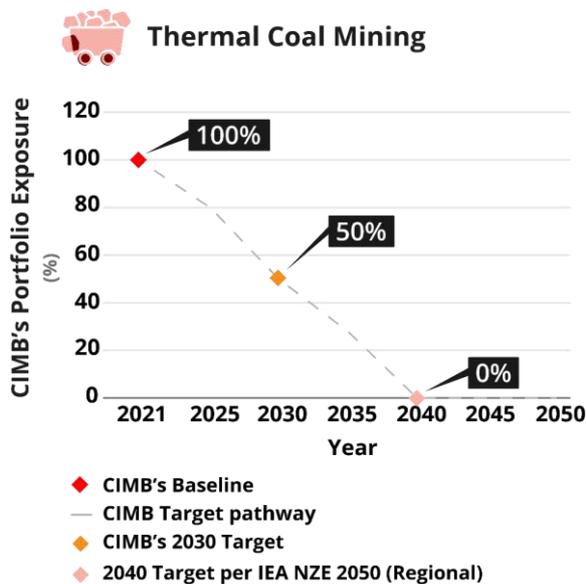
Chief Executive Officer of CIMB Malaysia and CIMB Bank Berhad

4 Thermal Coal Mining Sector

4.1 Summary of Our Targets

Sector Highlights

- Coal is an important fuel source globally, enabling stable and affordable baseload electricity generation, while contributing to access to electricity and economic growth. However, it is also one of the most carbon-intensive fossil fuels, emitting three times more GHG than oil. Hence, there is an urgent need to phase out coal power generation to limit global warming to below 1.5°C. Ending new approvals of unabated coal plants, the early retirement and repurposing of coal-fired power plants (CFPP) are crucial actions for facilitating a decline in fossil fuel demand, while creating additional room for renewable energy to expand.
- Following the 2023 updates to the IEA NZE, the global demand for coal is expected to fall from 5,800 million tonnes of coal equivalent (Mtce) in 2022 to 3,250Mtce by 2030 and around 500Mtce by 2050. However, the scenario considers higher near-term use of coal that reflects the need for a more equitable pathway for emerging market and developing economies which dominate global coal use, as well as near-term energy security concerns exacerbated by recent geopolitical tensions.
- Asia is responsible for more than 80% of global employment in the coal value chain. Many countries in ASEAN are still heavily dependent on coal for power, employment and economic development, and the inevitable phasing out of thermal coal may result in economic dislocations, impacting the vulnerable segments most. Financial institutions play a key role to encourage and enable just transition considerations and plans, to mitigate the socio-economic implications within coal mining regions, as well as broader energy security concerns.
- While thermal coal is being phased out for power generation, metallurgical coal will continue to play a crucial role in iron and steel production until new technologies become available.



Metric

- % of portfolio exposure

Scope

- Thermal coal mining clients

Decarbonisation Levers

- Implementation and progressive enhancement of our Coal sector guide
- Proactive client engagement to support clients' diversification plans and ensure relevant controls are in place to best manage the socio-economic impacts from wind-downs

4.2 Industry Overview

Coal is the single largest source of both electricity generation and global CO₂ emissions. Nearly two-thirds of global coal production is used for electricity generation, with the industrial sector utilising another 30%²⁵. In 2022, coal accounted for 36% of global energy related GHG emissions of 36.8 GtCO₂, increasing by 1.6% compared to the previous year²⁶.

An essential driving force behind this is the projected increase in electricity demand, which is expected to rise by 25-30% to 2030²⁷ propelled by the electrification of critical sectors such as transportation, heating, and industrial activities. As these sectors increasingly rely on electricity, there is a pressing need to address potential challenges arising from electricity supply and demand imbalance, without which the world could see continued reliance on fossil fuels, thus impeding progress toward achieving Net Zero targets. To successfully navigate this evolving energy landscape and effectively reduce global reliance on thermal coal, a concerted effort is required to invest in and promote the adoption of cleaner and more sustainable sources of energy to replace coal-based power generation.

The IEA NZE foresees the end of unabated coal generation in developed economies by 2030, followed by a complete phase-out by 2040 globally. Furthermore, in alignment with the expected decline in demand for thermal coal to reflect this scenario, no new thermal coal mines or extensions are required from 2021 onwards²⁸.

In ASEAN countries, coal still plays an important role as one of the main sources of energy supply, accounting for 26% of total supply in 2020²⁹. However, this varies widely by country, with large coal-producing countries such as Indonesia and Vietnam having a higher percentage of coal within their energy mix. The driver behind this higher dependence on coal is mainly due to resource availability, affordability and energy security (see Section 7.2). The end of new approvals for unabated CFPPs, as well as the re-purposing and early retirement of existing CFPPs, are crucial levers to facilitating the decline in fossil fuel power generation and creating additional room for the expansion of already mature and viable renewable power generation sources. However, it is worth highlighting that the economic cost of early retirement of CFPPs in ASEAN will be higher due to the relatively young age of CFPPs in the region³⁰.

The industrial sector accounts for 30% of coal consumed globally, through the use of coking coal in applications such as the manufacturing of steel, iron and cement. Unlike the Power sector, clean alternatives to coal in these key industrial applications are not yet commercially viable and scalable. Decarbonisation pathways for steelmaking have crucial dependencies on as yet immature green hydrogen and CCS technologies. Reflecting the longer-term nature of the transition, the IEA NZE requires a drop of only 30% in coking coal usage in 2030 compared to 2021 levels. This compares to the 50% decrease required for thermal coal usage within the same timeline²⁵.

It is acknowledged that the transition away from thermal coal could have significant socio-economic impacts if not carefully planned and managed, particularly in coal-producing countries and regions. Coal mining accounts for 2-2.7% of GDP in Indonesia³¹ and coal mine closures, and if not appropriately managed, could result in economic and social dislocation, especially in small,

25 IEA (2022). Coal in Net Zero Transitions.

26 IEA (2023). CO₂ Emissions in 2022.

27 IEA (2022). World Energy Outlook 2022.

28 IEA (2023). Net Zero Roadmap: A Global Pathway to Keep the 1.5oC Goal in Reach (2023 Update).

29 IEA (2022). Southeast Asia Energy Outlook 2022.

30 Global Energy Monitor Coal Plant Tracker (2023). Coal-fired power capacity by country. Global Energy Monitor.

31 IESR (2020). Dynamics of Coal Transition in Indonesia: The Economic, Power, and Climate Perspectives.

remote mining communities where the local economy depends on coal³². For example, the ILO estimates that coal mining contributes 32% and 19% of GDP in the Indonesian provinces of East and South Kalimantan, respectively. Furthermore, a managed transition away is also crucial to limit fugitive coal mine methane emissions that can continue to occur even decades after mine closure.

This highlights the importance of a balanced approach for the transition towards cleaner energy within the region, taking into consideration specific country needs and circumstances together with impacts on communities' livelihoods. Financial institutions play a key role to enable and encourage a just transition by supporting affected stakeholders to progressively pivot away from thermal coal, in a holistic manner, taking into consideration socio-economic impacts.

4.3 CIMB's 2030 Target in the Thermal Coal Mining Sector

CIMB's coal exit journey

In December 2020, we announced our commitment to phase out from coal by 2040. This was done in tandem with the roll-out of our first Coal sector guide, which prohibits asset-level and general corporate financing of greenfield thermal coal mines and coal-fired power plants, as well as expansions.

Our commitment was further strengthened in September 2021, with the announcement of a 2030 Target to reduce 50% of thermal coal mining exposure (index base 100 from our 2021 baseline) by 2030. This was followed by the announcement of our coal transition plans in September 2022.

The IEA NZE scenario through to 2030 focuses largely on the Power sector, via the transition from unabated coal towards clean energy technologies which are proven and continue to become more economically competitive (see Section 7: Power Sector). Our sector targets as laid out in this section of the Whitepaper are therefore focused on thermal coal mining activities, and serve to work hand-in-hand with our Power sector target to support the region's shift away from coal-fired power generation.

Due to the nascency of clean alternatives to coal required for decarbonising industrial applications, coking coal mining activities are currently excluded from our Thermal Coal Mining sector targets. However, we will continue to engage with our clients involved in the production and end-use of coking coal to increase efficient use of materials and energy to drive near-term emissions reductions in industry.

Design Decision A: Target metric selection

We provide general financing to our thermal coal mining clients at the parent company or group level, and a mix of general and project financing to their subsidiaries who focus on providing services to coal-related assets within the group. In addition to thermal coal miners, our clients in this sector include coal contractors who support coal mining operations, coal traders, and coal shipping players.

For the purposes of target-setting, we include all clients who generate more than 5% of their annual revenue directly from thermal coal mining following NZBA's guidelines. Metallurgical or coking coal is excluded from the scope of this target as there are limited low-emission alternatives that are able to replace coking coal in the near future.

The metric selected is the financing and investment exposure to thermal coal mining clients, (value of exposure, index base 100 at baseline year of 2021). As CIMB's long-term target is to fully exit

32 World Bank, Ruppert Bulmer, Elizabeth; Pela, Kevwe; Eberhard-Ruiz, Andreas; Montoya, Jimena (2021). Global Perspective on Coal Jobs and Managing Labour Transition out of Coal: Key Issues and Policy Responses.

thermal coal by 2040, this metric allows for clearer monitoring and gauging of our overall performance towards the achievement of that goal.

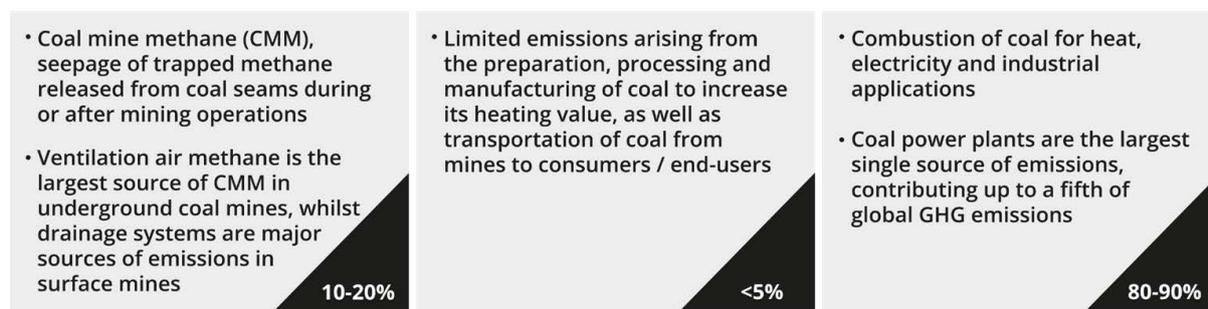
Design Decision B & C: Value chain and emission scope coverage

The production and distribution of thermal coal is simpler and contains fewer steps in comparison to other fossil fuels such as natural gas. The process starts with mining and extraction of the raw material, coal preparation and manufacturing to process the coal for the intended use, before being inventoried and transported to the market for final use as fuel for power generation.

Figure 2 Coal Sector Value Chain^{33,34}



Sources of emissions & contributions to value chain emissions



Within the thermal coal value chain, the majority of the emissions are emitted in the use stage of coal (i.e., coal power generation), which is covered under our Power sector emissions targets (see Section 7: Power Sector). However, we also focus on the segments of the value chain that are able to spur the entire sector into alignment, hence our focus on thermal coal mining.

As we are using a financial exposure metric for this sector, the emissions scope (i.e. GHG emissions scope 1, 2 or 3) will not be a relevant consideration for this target.

Design Decision D: Selecting a reference scenario

The IEA NZE scenario from the 2021 Net Zero Roadmap for the Global Energy Sector³⁵ underpins our net zero ambitions in the Thermal Coal Mining sector. Anchoring on the IEA NZE scenario ensures that our pathway trajectory is aligned to a 1.5°C warming scenario, and has high credibility and wide acceptance among companies, financial institutions, and policy makers alike.

Our thermal coal target is also aligned to IEA NZE scenario where the Power sector will need to phase out unabated coal power generation by 2040, reducing demand for coal and putting an end to the need for new or lifetime extensions of thermal coal mines after 2021.

33 Biral & Malpass (2021). It's critical to tackle coal emissions.

34 IEA (2023). Global Methane Tracker 2023: Strategies to reduce emissions from coal supply.

35 IEA (2021). Net Zero by 2050 – A Roadmap for the Global Energy Sector.

Design Decision E: Establishing our baseline

Our baseline includes the outstanding amount of financing for, and investment in, thermal coal mining clients, within all regions where we operate. We conducted our initial baselining for this sector in 2022, with data as of 31 December 2021 setting the index base at 100.

Exposure to coal-fired power generation (CFPG) clients is excluded from our Thermal Coal Mining sector baseline, as it is covered separately as part of our baselining in the Power sector.

Coal mining and coal end use, most significantly in power generation, together account for more than 90% of GHG emissions across the coal value chain. Aligned to this, our focus on these main activities, and the combination of our targets for the Thermal Coal Mining sector and Power sector, have the most material impact on our financed emissions in the Thermal Coal Mining sector. Coal contractors who support coal mining operations, coal shippers and coal traders make up the remainder of our clients in the thermal coal value chain. However, their direct contribution to GHG emissions and level of influence is limited, and hence not currently included in our baseline. Nonetheless, we will continue to engage with them to take action to improve efficiencies and reduce methane seepage, in keeping with the spirit of our commitment to work closely with our clients towards decarbonisation.

Our Net Zero approach in the Thermal Coal Mining Sector

By 2030, we aim to reduce our exposure to thermal coal mining clients by 50% compared to our baseline, which made up 80% of our 2021 exposure to the Thermal Coal Mining sector excluding coal-fired power generation (these are captured separately in our Power sector baseline).

Similar to the Power sector, this is an ambitious target considering Southeast Asia's reliance on coal as an energy source and an important export commodity in countries in which we operate. A just transition requires not only the phase-out of coal, but the unprecedented scale-up of clean alternatives that can provide the same energy services securely and affordably. Given that 80% of the ~8.4 million people employed worldwide across the coal value chain are located in Asia³⁶, it is also crucial that the transition creates opportunities for coal-dependent people and communities in this part of the world, ensuring they are not left behind.

Our Thermal Coal Mining sector targets provide us with a runway to work with our clients in the transition, while also drawing strict boundaries to ensure we are consistent with a Net Zero outcome. Our strategy involves the following elements:

- Strict adherence with prohibitions within our current Coal sector guide, such as prohibitions on any forms of asset-level or general corporate financing, including project financing and capital raising specified for greenfield thermal coal mines and Coal-Fired Power Plants (CFPP), including expansions.
- Periodically strengthening our Coal sector guide by expanding the scope of thermal coal related segments, prohibitions, mandatory requirements and introduction of specific thresholds on revenue and/or fuel mix from thermal coal, for both new and existing clients.
- Encouraging and supporting our clients to
 - Diversify and transition to other business activities outside of thermal coal, particularly towards green and/or sustainable projects in line with our Green, Social and Sustainable Impact Products and Services (GSSIPS) Framework.
 - Adopt necessary measures to mitigate socio-economic impacts on workers and surrounding communities due to their diversification and transition plans.

³⁶ IEA (2022). Coal In Net Zero Transitions, World Energy Outlook Special Report.

Future developments and dependencies

The transition of any sector to meet a Net Zero pathway is dependent on the collaboration and alignment of multiple stakeholders such as industry players, government bodies, and NGOs to establish a clear roadmap for transformation. Similarly, for the Thermal Coal Mining sector, we recognise that our success relies on a number of factors including our clients' evolving commitments to decarbonise, as well as effective implementation and realisation of country policies, frameworks and commitments that would accelerate stakeholders to transition, including setting a price on carbon.

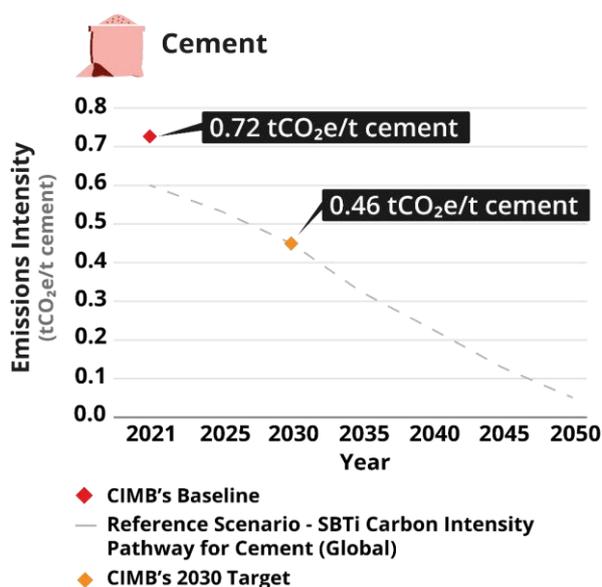
The development of scalable, cost-effective technologies that would allow this transition to happen on a larger scale is also crucial. CIMB remains committed to play our part by engaging, supporting and enabling our clients by providing the required support, be it directly through our GSSIPS offerings or advocacy work with key industry stakeholders.

5 Cement Sector

5.1 Summary of Our Targets

Sector Highlights

- The Cement sector plays an important role globally and, especially in the developing world, is essential for socio-economic development. At the same time, the demand for cement is expected to grow continuously in the next decade.
- To meet the demand for sustainably-produced cement and reach the required sector decarbonisation, cement players can adopt several changes in their production process including the use of alternative fuels to reduce the reliance on fossil fuels to heat kilns, as well as clinker substitution. There are also emerging technologies which will further reduce the amount of CO₂ emitted per tonne of cement produced, including the use of new raw materials, development of more efficient kilns, and application of CCS technologies.
- Our decarbonisation trajectory in the near-term will not be linear. We expect emissions reduction to be steeper towards the end of this decade as decarbonisation technologies further mature.
- The transition to a low-carbon cement industry will be challenging, but also provides opportunities for financial institutions to support the transition. As a financial services provider, we can also play a role in stimulating a more conducive ecosystem for low-carbon cement, such as with our clients in the Real Estate sector.



Metric

- Physical emissions intensity, i.e. tonne of CO₂ equivalent per tonne of cement

Scope

- Scope 1 and 2 emissions of cement manufacturing clients

Decarbonisation Levers

- Encourage and support the adoption of technologies that reduce emissions
- Provide financing options that incentivise sector decarbonisation
- Influence our real estate clients to decarbonise to signal and create the demand for more sustainably-produced cement
- Collaborate and engage with industry organisations, and have regulatory conversations to contribute ideas on constructive sector decarbonisation efforts
- Selective onboarding of new cement clients with a clear transition plan aligned with Net Zero 2050

5.2 Industry Overview

Cement is an essential building material used to make concrete, which is the backbone of our homes, communities and infrastructure. The Cement sector plays a particularly important role in the developing world, creating opportunities which enable socio-economic development. For instance, Indonesia's Cement sector contributes around 5% of the country's GDP and creates up to 1 million direct job opportunities³⁷. The demand for cement is expected to grow continuously in the next decade, estimated at a CAGR of 5.1% (between 2022 to 2029) fueled by the rising population which increases the need for buildings³⁸.

However, this is also one of the highest-emitting sectors, with the production of cement responsible for about 8% of global anthropogenic GHG emissions³⁹. This poses a major challenge for the sector, having to balance ways to meet its emission requirements while still meeting the growing demand for cement, particularly in developing nations.

In addition, cement decarbonisation in the Southeast Asia region is also essential due to the Carbon Border Adjustment Mechanism (CBAM), which will place carbon prices on exported cement based on its embedded emissions. To reduce the cement manufacturer's CBAM liability and maintain export competitiveness, cement manufacturers will need to invest in low carbon and sustainable cement production technologies.

To meet this demand for sustainably-produced cement, various technologies can be utilised although certain limitations remain a hindrance. These include:

- **Substitution of Clinker:** Substituting clinker (responsible for roughly two-thirds of the sector's CO₂ emissions) with alternative materials such as fly ash, slag, and pozzolans, can reduce the clinker-to-cement ratio which would directly reduce CO₂ emissions during cement production. Fly ash and slag are by-products of coal-fired power plants and iron and steel production respectively, while pozzolans are natural substances that possess cement-like properties.
- **Carbon Capture, Utilisation and Storage (CCUS):** The calcination process which creates clinker (the primary component of cement) is a significant contributor to the sector's CO₂ emissions, which can be captured and reused through the implementation of CCUS technology. Despite its potential benefits, the widespread deployment of CCUS faces several challenges that need to be addressed, including its high cost, limited availability of storage sites and infrastructure readiness.
- **Improving Energy Efficiencies:** Electric kilns, pre-calcined raw materials, combustion process optimisation, heat recovery system adoption, improved insulation and maintenance are just some of the options available to reduce the emissions from energy use in the production process. Kiln electrification is one of the promising technologies which is being pilot-tested by several industry players, utilising electricity to heat raw materials, and making it more energy-efficient than traditional kilns powered by fossil fuels. As the power grid continues to

Cement industries of Southeast Asia



Vietnam, Indonesia, Thailand, the Philippines and Malaysia account for over 90% of the region's total cement production capacity, primarily dominated by a few large domestic players that are either privately-held or state-owned companies.

The average age of large cement players and technology used (mainly the kilns) in this region ranges between 20 to 25 years.

37 Asian Insiders (2022). The Cement Industry in Indonesia – Looking Ahead.

38 Fortune Business Insights (2023). Cement Market Size, Share & COVID-19 Impact Analysis, By Type, By Application, and Regional Forecast, 2023-2030.

39 Ellis, Badel, Chiang et al (2020). Proc. Natl Acad. Sci. USA 117.

decarbonise, electric kilns can further contribute to reducing the carbon footprint of the Cement sector.

- **Using Alternative Fuels:** Alternative fuels such as biomass, waste, and recycled materials are capable of heating kilns in cement plants. A new technology is currently being developed that employs green hydrogen as an alternative fuel. This option holds great potential for reducing emissions. However, green hydrogen is more expensive than fossil fuels and is not as widely available. Despite these challenges, the advantages of using green hydrogen in the cement industry are promising in long-term.

The transition to a low carbon cement industry is challenging due to the high cost of lower-carbon technologies, dependency on multiple players in the industry's ecosystem including developers and end buyers, making coordinated efforts to transition to low carbon technologies difficult, as well as the risk of carbon leakage. The higher cost of low-carbon cement could also translate into higher costs of buildings for end buyers, which could exacerbate current socio-economic issues, such as the need for more affordable homes.

These challenges, nevertheless, also create an opportunity for financial institutions to support the transition, including financing the construction of new low-carbon cement plants, the retrofitting of existing plants, and the development of new low-carbon cement technologies. Financial institutions could also offer financial products and services that support the transition to a low-carbon cement industry, which can include green bonds/sukuk, sustainability-linked financing, or other sustainability-linked instruments. Financial services providers can also stimulate greater demand for green buildings and green homes through products such as green mortgages.

5.3 CIMB's 2030 Target in the Cement Sector

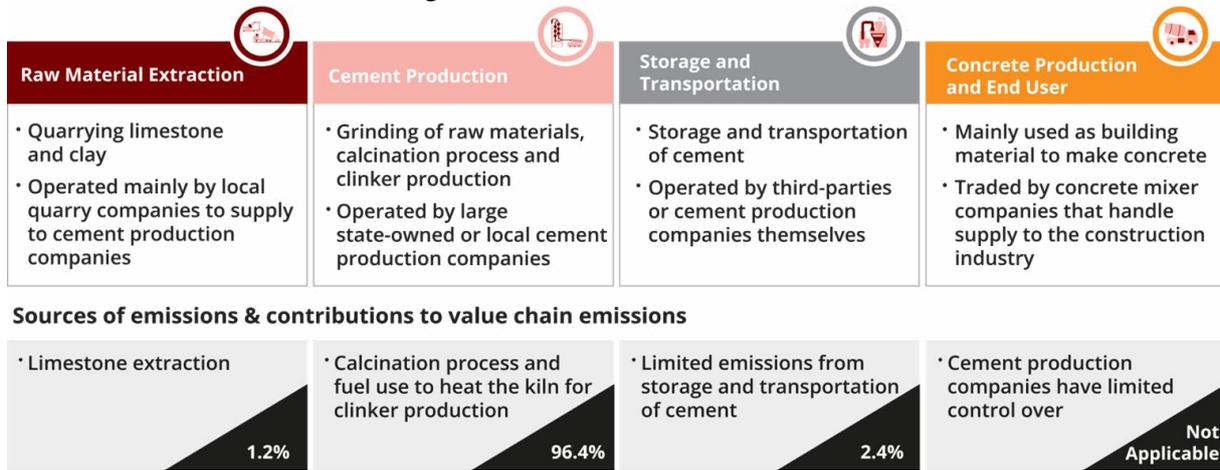
Design Decision A: Target metric selection

We have chosen physical emissions intensity as our metric for this sector, measured in tonnes of CO₂ equivalent per tonne of cement produced (tCO₂e/t cement produced), as it is a comprehensive, comparable, and policy-relevant metric. An emissions intensity metric serves to track the progress of the Cement sector in meeting its climate change goals, while continuing to meet growing demand. This metric will incentivise us to increase our exposure to less emission-intensive players, encourage our clients in this sector to adopt lower-emission technologies, and to increase our support for cleaner production, all of which will help to accelerate sector decarbonisation.

Design Decision B & C: Value chain and emissions scope coverage

Our target focuses on the cement manufacturing stage, where the majority of emissions occurs. This includes receipt of clinker feedstock (i.e. limestone clay, sand), preparation of components for processing, clinker production, milling and blending into cement, and storage of the finished cement.

Figure 3 Cement Sector Value Chain⁴⁰



The cement production process is a complex and energy-intensive process that begins with the grinding of raw materials into a fine powder. Raw materials are blended together and fed into a kiln, which is a long, rotating furnace heated to temperatures of up to 1,450°C. At this temperature, the raw materials react to form clinker, which is a hard, nodular material that is the main ingredient in cement. Two-thirds of the GHG emissions are process emissions caused by carbon released from the raw materials used during this stage, while the remaining CO₂ emissions are a result of fuel combustion. The clinker is cooled and ground into cement, with small amounts of additives, such as gypsum and limestone to improve its properties. Finally, the cement is stored and packaged for transportation and distribution⁴¹.

We include Scope 1 and Scope 2 of our Cement sector clients in our calculation of physical emissions intensity. Data is relatively accessible and reasonably reflects the direct actions taken by Cement sector clients in decarbonising their production. We currently exclude Scope 3 emissions from the Cement sector value chain. Activities such as raw material extraction/ mining, downstream transportation, as well as distribution and use of sold products are excluded from the target as data is limited at this point of time. Additionally, at the point of target setting, there was no suitable reference scenario that included those activities to inform a credible Net Zero ambition. However, we will continue to engage with our clients within the Cement sector to develop plans towards Net Zero in these activities, and consider expanding our target coverage to the whole value chain in the future.

Design Decision D: Selecting a reference scenario

Our Cement sector emission intensity target was set using the SBTi Cement Target Setting Guidance – Sectoral Decarbonisation Approach (SDA), which refers to the global IEA Net Zero by 2050 (NZE) scenario. SBTi Cement Target Setting Guidance provides a credible pathway to decarbonise the Cement sector in alignment with the 1.5°C warming scenario. It also has acceptance among companies across the Cement sector, financial institutions, and policymakers alike. We have adopted the global reference scenario due to the lack of available regional scenario at the point of target setting and will review our choice of reference scenario in the future should a more representative regional scenario be made available.

Design Decision E: Establishing our baseline

We assessed the emissions and production data availability and quality of reporting of our clients in the Cement sector to be relatively strong, especially among larger cement companies with multiple stakeholders requiring their public reporting to be assured. We have taken into consideration Scope 1 and Scope 2 emissions, coupled with our financing attribution to these

⁴⁰ McKinsey (2020). Laying the foundation for zero-carbon cement.

⁴¹ The European Cement Association. The story of cement manufacture factsheet.

clients. This provides us with the financed emissions information for each of our Cement sector clients. Similarly, we have used the attribution factor to obtain the quantity of cement production attributed to us. The physical emissions intensity of our Cement sector portfolio is obtained by dividing the sum of financed emissions over the sum of attributed cement production.

Through the use of detailed company-level data, we have been able to achieve a high level of data coverage with rich information, providing us with a high degree of confidence in our baseline calculations.

Our Net Zero approach in the Cement Sector

Our 2021 baseline physical emissions intensity stands at 0.72 tCO₂e/t cement produced, higher than the IEA NZE average of approximately 0.6 tCO₂e/t cement produced. We will be working with our clients through various approaches to ensure our 2030 Target is achieved. As a positive starting point, almost all our Cement sector clients have a long-term Net Zero 2050 commitment, although not necessarily a near-term 2030 Target which aligns with IEA NZE 2050. Achieving the IEA's NZE 2050 global pathway (i.e. physical emissions intensity of 0.46 tCO₂e/t cement produced by 2030 and 0.03 tCO₂e/t cement produced by 2050) is possible, albeit highly challenging. Achieving the pathway will require substantial investments in new technologies, greater uptake of market in green cement products, making sure the green cement is affordable, significantly enhancing the efficiency of the cement production processes, as well as changes in the regulatory environment and change in end-user preferences.

The technology for reducing carbon emissions in cement production is developing at different rates in various regions. Although certain technologies for reducing Cement sector emissions, such as waste heat recovery systems and clinker substitution, are readily available, many more technologies, including CCS, electric kilns, and alternative fuels, are still in the early stages of development or are currently economically prohibitive to implement. As such, our assessment indicates that the pathway towards decarbonisation in the Cement sector, at least in the Southeast Asia region, will not be linear in the immediate future.

- We are committed to continuously engaging with our clients to provide the necessary support and financing for them to decarbonise their operations. Our strategy involves the following elements: Near-term approach to regularly engage with clients to set mid-term targets, and encourage the implementation of technologies that reduce emissions.
- Supporting our clients to meet their transition targets by financing their decarbonisation efforts.
- Continuously influencing our real estate clients to decarbonise, including in their supply chains, which will provide an indirect signal to upstream supply chain players, including the Cement sector to decarbonise. Similarly, we will collaborate closely with industry organisations and engage in regulatory conversations to contribute ideas and forms of support. We hope that engaging with peers, standard-setters and policymakers will help create a demand signal for the Cement sector to decarbonise both in the near- and long-term.
- Selectively onboarding Cement sector clients with a clear transition plan aligned with Net Zero 2050.

Future developments and dependencies

The ability of the Cement sector to decarbonise relies on several factors. The demand for green or eco cement is market-specific, and highly influences the level of decarbonisation in the Cement sector. Utilising energy-efficient technologies such as electric kilns can reduce emissions from fossil fuel combustion (Scope 1). However, transitioning to electricity usage may lead to higher Scope 2 emissions, based on the carbon intensity of the local electricity supply. In addition, policies such as carbon pricing (either carbon tax or Emissions Trading Schemes) will catalyse the speed of adoption of technology, as this will create a price signal associated with higher carbon emissions. Thus, our ability to meet our portfolio emission target also relies on external factors that we strive to drive within our sphere of influence.

We will also constantly monitor the development of any regional decarbonisation pathways for the cement industry. We will also endeavour to update our Cement sector targets and plans in future as and when more information is made available, and as technologies mature.

6 Palm Oil Sector

6.1 Summary of Our Targets

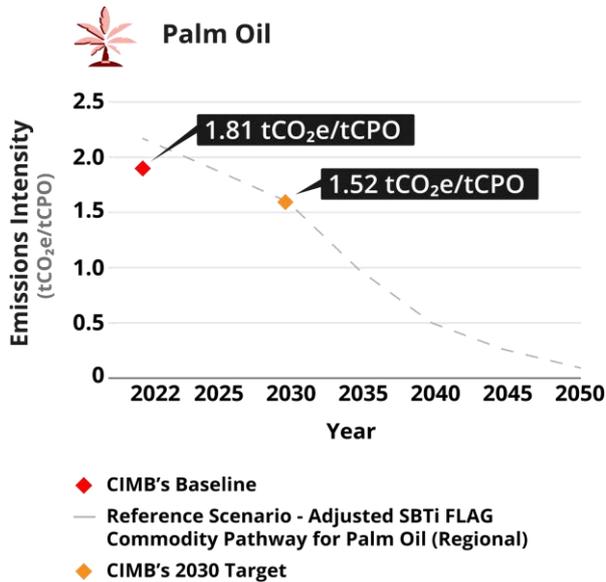
Sector Highlights

- Palm oil remains an indispensable commodity for demand markets globally that rely on its versatility and affordability in incorporating its various derivatives and fractions into a multitude of products. The market for palm oil will continue to grow, with no readily available substitutes available at similar scale, cost and efficiency. Palm oil's unique chemical properties are hard to replicate, and crucially, high yields per hectare make palm oil an efficient source of food and fuel, such that substitution will potentially result in land displacement impacts that are four to seven times for the cultivation of alternative oil crops.
- Palm oil is also a crucial commodity for producer nations. As a primary industry and a significant agricultural export, palm oil is directly responsible for between 3-5% of the GDP of Indonesia and Malaysia⁴². The production of palm oil is also responsible for the direct employment of over 4.3 million people across Indonesia and Malaysia, and more than 12 million others indirectly⁴³. This includes more than three million smallholder farmers in rural communities in the region, who depend on oil palm cultivation for their livelihoods, and who are responsible for more than 40% of palm oil production in the region⁴⁴. A just transition must bring onboard this vulnerable population, safeguarding their livelihoods while increasing the propagation of sustainable practices.
- Palm oil can be produced sustainably while continuing to bring socio-economic benefits to the developing markets involved in its production. This includes halting deforestation and adopting a strict NDPE policy, which will minimise the addition of GHG emissions associated with new land use change and peat oxidation, while concurrently, historical land use change related emissions continue to amortise over time. Additionally, the adoption of more climate conscious growing and milling practices and technologies, and ensuring the protection of human rights of workers, smallholders and local communities, are vital components of achieving sustainable production.
- Governments, regulators, standard setters, industry bodies and players, as well as NGOs have made concerted efforts in the last two decades to improve the sustainability of palm oil production, and national and international certification schemes have proven to be crucial catalysts for change by establishing standards, providing guidance and verification for the sustainable production of palm oil. Continued progress will enable sustainable palm oil to be an important lever for decarbonisation, providing lower carbon alternatives for the broader food and fuel systems.
- As a bank providing financing to this crucial sector, we intend to play our part and work with our existing and new clients to encourage and facilitate their strategies towards more sustainable production. We will also engage with actors across the broader palm oil ecosystem to seek out opportunities for collaboration, to enable and accelerate the decarbonisation of the sector, while standing ready to provide the financing necessary to achieve it.

⁴² Indonesia: GAPKI (2021). Palm oil has irreplaceable role in Indonesian economy. Malaysia: Economic Planning Unit, Prime Minister's Department (2022) The Malaysian economy in figures.

⁴³ RSPO (2022). Impact Report.

⁴⁴ Meijaard et al. (2018). Oil Palm and Biodiversity, A situation analysis by the IUCN Oil Palm Task Force. IUCN Oil Palm Taskforce.



Metric

- Physical emissions intensity, i.e. tonne of CO₂ equivalent per tonne of crude palm oil

Scope

- Scope 1 (including land use change related emissions and sequestration) and 2 of plantation, mill and integrated clients
- Scope 3 upstream (i.e. external sourcing of fresh fruit bunches) of integrated clients

Decarbonisation Levers

- Strict adherence to CIMB's NDPE policy
- Support clients in Certified Sustainable Palm Oil (CSPO) qualifications, and in conjunction, improve emissions data reporting
- Onboard new CSPO clients, and support our existing clients to deliver and further accelerate emissions intensity reduction efforts
- Finance biogas plant installation at palm oil mills

CIMB's NDPE commitment for palm oil, forestry and timber plantation (including rubber) sectors

We incorporated No Deforestation, No Peat and No Exploitation (NDPE) commitments into our Group Sustainable Financing Policy in 2022. We require our clients to have an NDPE policy which includes commitments to:

- Conduct High Conservation Value (HCV) assessments to identify, protect and conserve HCV areas, prior to any new development;
- Prohibit any new cultivation on peatland;
- Obtain legal rights and respect the rights of indigenous peoples and affected communities to give or withhold free, prior and informed consent (FPIC); and
- Uphold labour rights including no exploitation of workers or forced and child labour.

Processors including palm oil mills, are strongly encouraged to establish traceability systems for external crop suppliers, develop an assurance mechanism to ensure crops are sourced legally, and engage with external suppliers on their own NDPE requirements.

<p>No Deforestation</p> <p>Avoiding deforestation when developing land for commodities or projects, as well as regulating burning, and promoting the reduction of GHG emissions on existing plantations</p>	<p>No Development on Peat</p> <p>No new peatland developments and encouraging Best Management Practices on existing peat plantation, promoting restoration of peat wherever feasible</p>	<p>No Exploitation</p> <p>No exploitation of workers and small-scale growers, seeking Free, Prior and Informed Consent from local communities, and demonstrating respect for human rights</p>
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As an ASEAN-focused bank with our interests deeply rooted in the region, we aim to be an agent for change by supporting our clients in the Palm Oil sector in the transition to sustainable palm oil. Our 2030 Target commits us to work with our clients to reduce the emissions intensity of our exposures in the sector at an average rate of 2% per annum, in order to achieve 16% reduction by 2030 in alignment with a Net Zero future.

“Transitioning to Net Zero requires a nature-positive economy, net positive corporate and just transition leadership. CIMB’s effort in setting a Net Zero target for the Palm Oil sector supported by “no deforestation” policy is an exemplar of tackling the twin climate change and biodiversity crises and with social equity considerations. We call upon financial institutions and corporations to set and act on science-based targets and transition plans to step up to the greatest responsibility of our time.”

WWF-Malaysia and WWF-Singapore

6.2 Industry Overview

Palm oil is one of the most widely consumed oils globally. It serves as an affordable cooking oil for communities all over the world and is highly versatile, with its numerous fractions and derivatives finding their way into a multitude of food, household, personal care and cosmetic products to satisfy growing global demand.

Due to its high calorific value, palm oil also serves as an important source of biofuel for producer nations, supporting them in their energy security and environmental sustainability objectives. The use of biofuels as a fossil-fuel based petroleum substitute is not dependent on new vehicle and engine technology and is therefore a practical and important lever for reducing reliance on fossil fuels in the transportation sector today. Countries such as Indonesia and Malaysia plan to continue raising the mandatory biodiesel blending mandates to accelerate the shift away from fossil fuels⁴⁵.

Overall, demand for palm oil has tripled in the last 20 years⁴⁶ and growth is set to continue as population and income growth results in greater demand for food and non-food products.

Figure 4 Properties of palm oil and its various uses



45 Reuters (2022). Indonesia, Malaysia commit to biodiesel mandates despite higher prices.

46 FAOSTAT (2000-2021). Food and Agricultural Organization of the United Nations.

Southeast Asia is the largest producing region of palm oil, with Indonesia and Malaysia combined accounting for over 85% of the more than 70M metric tonnes of global annual Crude Palm Oil (CPO) production⁴⁷. As a primary industry and a significant agricultural export, palm oil is directly responsible for between 3-5% of the GDP of Indonesia and Malaysia⁴⁸.

Palm oil production is also responsible for the employment of over four million people across Indonesia and Malaysia, and more than 12 million others indirectly⁴⁹. This includes more than three million smallholder farmers in rural communities, who depend on oil palm cultivation for their livelihoods, and who are responsible for over 40% of palm oil production in the region^{49,49}.

Oil Palm refers to the palm tree, whereas Palm Oil is the product produced from oil palm



CIMB Group's commitment to human rights

Palm oil plantations employ over four million people across the region, while the sector has also brought gainful employment to millions more including smallholders and others working on farms, mills and refineries⁴⁹. With the large numbers of people from vulnerable groups such as low-wage and foreign workers and indigenous groups involved, the risk of negative impacts to workers, local communities and their fundamental human rights is a key concern.

CIMB maintains a strict human rights policy adhering to internationally recognised laws and standards which outlines a comprehensive framework for identifying, preventing and mitigating human rights violations. In our financing activities, where clients fail to effectively address human rights risks, we institute corrective action plans within agreed timelines.

In July 2023, we collaborated with Earthworm Foundation to conduct training programmes on Human Rights management to provide additional support to our clients and vendors in managing their human rights risk.

To learn more on CIMB's commitments, refer to our human rights statement [here](#).

Rainforests and peatlands are large carbon sinks, and deforestation and peatland clearance in this region, primarily due to the expansion of agriculture including palm oil, mining activities and from illegal logging, have resulted in detrimental environmental and biodiversity impacts. Despite its ubiquity in food and household products, as well as the socio-economic benefits that oil palm cultivation brings to producer nations, palm oil has become a deeply controversial product, with negative associations globally and many food products bearing "no palm oil" labels. While the rate of primary forest loss in Malaysia and Indonesia has reduced to near record-low levels in recent years with supportive regulations, historical deforestation in the

last two decades associated with oil palm cultivation has been a subject of contention and continues to exert an impact on the emissions associated with palm oil production through land use change. In addition, social issues such as land conflicts and workers' rights have also contributed to the sector's negative associations, with companies facing increasing scrutiny on their labour practices and human rights protections for indigenous peoples and local communities.

At the same time, substitution with alternative oils is either impractical or inefficient. Direct substitution is difficult due to palm oil's unique chemical properties. Oil palm yields per hectare also makes palm oil an extremely efficient source of food and fuel, currently supplying >40% of the world's vegetable oil demand on just <10% of the total acreage of land used in vegetable oil

47 FAOSTAT (2000-2021). Food and Agricultural Organization of the United Nations.

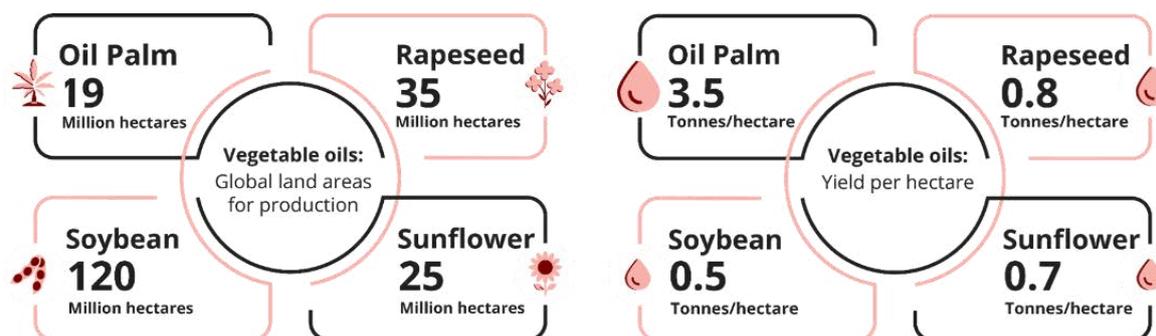
48 Indonesia: GAPKI (2021). Palm oil has irreplaceable role in Indonesian economy.

Malaysia: Economic Planning Unit, Prime Minister's Department (2022). The Malaysian economy in figures.

49 RSPO (2022). Impact Report.

production⁵⁰. Substitution will result in land displacement impacts that are four to seven times as large for the cultivation of alternative oil crops, further increasing GHG emissions and jeopardising biodiversity⁵¹.

Figure 5 Yields from palm oil versus other vegetable oils⁵²



The palm oil industry has made considerable progress on tackling these environmental and social issues, and continued support and momentum is required to drive further improvements. Oil palm producer nations have recognised the need for a shift to sustainable palm oil. Regulators across major producers in the region, NGOs and companies across the palm oil value chain including growers, producers, refiners and users have been laying the groundwork for the production of sustainable palm oil since the early 2000s.

The last decade has seen an acceleration in supportive regulations. Indonesia and Malaysia have declared moratoriums on the use of primary forest and peatland for oil palm cultivation. NDPE commitments have been adopted by a broad swathe of companies within the palm oil ecosystem. Serving as a crucial catalyst for change, national and international certification schemes have been established to set standards, provide guidance, and verify the sustainable production of palm oil. Certified Sustainable Palm Oil (CSPO) production under international and local certification schemes has increased, with 20% of total annual production being Roundtable on Sustainable Palm Oil (RSPO) certified⁵³. A total of 5.5 million hectares or >97% of the total oil palm planted areas in Malaysia have obtained Malaysian Sustainable Palm Oil (MSPO) certification⁵⁴. In Indonesia, 90% of the member companies of the Indonesian Palm Oil Association (GAPKI) have obtained the mandatory Indonesian Sustainable Palm Oil (ISPO) certification; ISPO is expanding mandatory coverage to include smallholders which is expected to help drive up overall national adoption rates from currently at ~30-40%⁵⁵.

50 Meijaard et al. (2018). Oil Palm and Biodiversity, A situation analysis by the IUCN Oil Palm Task Force. IUCN Oil Palm Taskforce.

51 FAOSTAT (2000-2021). Food and Agricultural Organization of the United Nations.

52 WWF (2015). Sustainable Sourcing Guide for Palm Oil Users: A practical handbook for US consumer goods and retail companies.

53 RSPO (2022). Impact Report.

54 Business Today (28 Feb 2023). More than 97% of Oil Palm Planted Areas Are MSPO Certified.

55 GAPKI (2023). 90% Members of GAPKI Get ISPO Certificates.

Figure 6 Example of Standards for Certified Sustainable Palm Oil

	 Voluntary global standards	 Mandatory Malaysian standards <i>Since 2020</i>	 Mandatory Indonesian standards <i>By 2025 including all smallholders*</i>
Primary forests & deforestation	<p>Land clearing since Nov 2018 should not damage HCVs or HCS forest</p> <p>HCVs and HCS forests in the managed area are identified and protected or enhanced</p>	<p>Comprehensive HCV, environmental and social impact assessments are undertaken prior to new plantings</p> <p>No conversion of natural forest, protected areas and HCV areas from Dec 2019</p>	<p>Original principle on 'protecting primary forests and land peats' has been changed to 'environmental management, natural resources and biodiversity' in 2020</p>
Peatland	<p>No new planting on peat after Nov 2018</p>	<p>New planting on peatland to be avoided unless permitted by local legislation</p>	<p>Focuses on the conservation of forests, peatland and HCV areas</p>
Free, prior and informed consent (FPIC) standards	<p>Requires that use of the land for oil palm does not diminish the legal, customary or user rights of other users without their FPIC</p>	<p>Requires customary rights to not be threatened or reduced; any conflict or land disputes shall be resolved in accordance with an FPIC process</p>	<p>No explicit reference to FPIC, though requires a company to settle land disputes in its permit area</p>
Workers rights	<p>Ensures workers' rights, health and safety including no forms of child, forced or trafficked labour are used</p>	<p>Ensures workers' rights, health and safety and that no forms of forced or trafficked labour are used</p>	<p>Ensures workers' occupational health and safety, worker welfare improvement and prohibits child labour</p>

* ISPO has been mandatory for all oil palm companies since 2011 (and voluntary for smallholders), though biofuel producers were exempted temporarily from 2015-2020
 Source: RSPO, MSPO, ISPO

The rate of deforestation has slowed significantly to near record-low levels in Indonesia and Malaysia. Primary forest loss in Indonesia has reduced by 64% within the 2020-2022 period compared to 2015-2017. A similar comparison in Malaysia shows a 57% decline in deforestation, which remains low on an absolute basis and has declined from its recent peak of 200kHa average per year in 2014-2016, to level off at ~70kHa per year in the last three years⁵⁶. Conservation efforts within oil palm concessions are also being undertaken in earnest, and cumulatively through 2021, RSPO members globally have set aside a total of 301kHa land for conservation⁵⁷.

Additionally, leading plantation companies are starting to adopt precision technology to optimise fertiliser and other farming inputs, while the installation of biogas capture facilities in mills has helped to significantly reduce methane emission associated with palm oil production. In fact, most farming practices and technology required to significantly reduce the emissions intensity of CPO

56 World Resources Institute (2022). Global Forest Review, Forest Pulse: The latest on the world's forests.
 57 RSPO (2022). Impact Report.

production are readily available, with studies demonstrating that a 35% reduction of emissions intensity from sustainable production is already achievable today⁵⁸.

While progress is evident and the challenge going forward is to continue scaling the adoption of sustainable production practices and increasing the proportion of CSPO in total palm oil production. Crucially, the transition must also bring onboard more than three million smallholders in the region who supply oil palm fresh fruit bunches (FFB) directly to the large integrated producers or indirectly through a complex chain of traders and independent mills. Smallholder inclusion has the potential to deliver higher incomes and improved access to finance and services for smallholders. However, due to a variety of challenges including complicated legal requirements and significant costs of certification, as well as the lack of expertise and training in sustainable practices, this segment poses a significant challenge to scaling up the production of CSPO. This will require commitment and accelerated efforts from regulators, NGOs, and companies across the palm oil value chain, to support smallholders within their sphere of influence to adopt the right practices.

6.3 CIMB's 2030 Target in the Palm Oil Sector

Design Decision A: Target metric selection

Demand for palm oil is expected to grow at a rate 3-5% per year, requiring an increase of at least 20M metric tonnes of production by 2030⁵⁹. This reflects the growing demand for products made of or containing palm oil such as food, household products, cosmetics and biofuels, with no readily available substitutes at similar cost, scale and efficiency. Consequently, we target a physical emissions intensity reduction, expressed in tonnes of CO₂ per tonne of Crude Palm Oil (tCO₂e/tCPO) reduction. Our goal is to support palm oil producers to continue to produce, or even producing more at a lower carbon intensity, and not to reduce our support to the sector.

Design Decision B & C: Value chain and emissions scope coverage

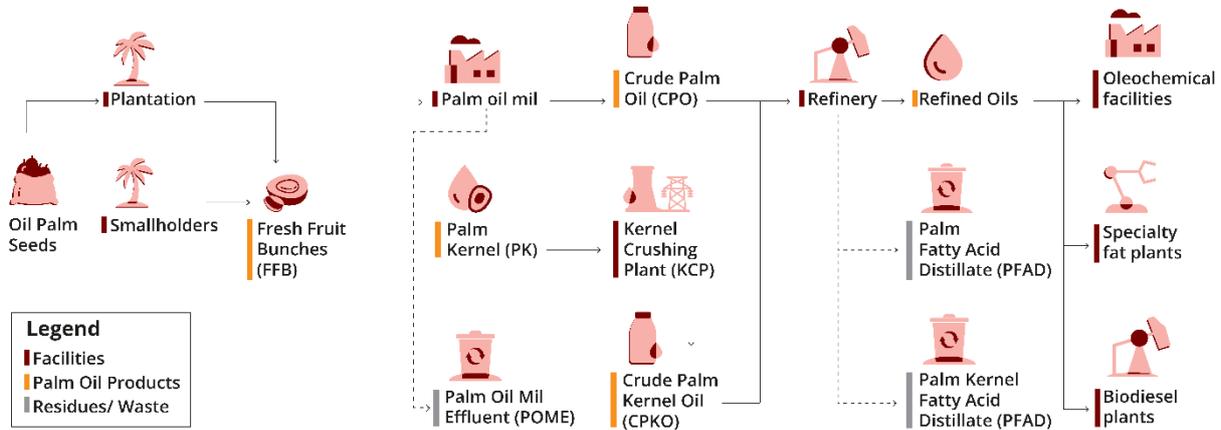
The production of palm oil begins in producing countries where oil palms are planted. Cultivation is undertaken by plantation companies and integrated players, as well as the more than three million smallholders in Malaysia and Indonesia who account for >40% of total palm oil production in the region⁶⁰. Oil palm trees begin bearing fruits 2-3 years post-planting, and remain productive up to ~25-30 years. FFB are harvested and delivered to a nearby mill within 24 hours. At the mill, CPO is produced from the FFB, alongside various by-product and waste streams including Palm Kernel (PK) and Palm Oil Mill Effluent (POME). PK is eventually crushed at a kernel mill to produce Crude Palm Kernel Oil (CPKO). Both CPO and CPKO are transported to different refineries around the world and treated to render them suitable for food production and other end uses.

58 Schmidt J & De Rosa M (2022) Life Cycle Assessment of Palm Oil at United Plantations Berhad 2021, Results for 2004-2021.

59 Kondalamahanty (2023). Supply vs sustainability a key challenge for palm oil industry, S&P Global Commodity Insights.

60 Solidaridad Network (2022). Palm Oil Barometer 2022: The inclusion of smallholder farmers in the value chain.

Figure 7 Palm Oil Value Chain⁶¹



Upstream: Plantations & Smallholders

- FFB is produced by plantations and smallholders.
- Commercial plantations can extend over tens of thousands of hectares and tend to be part of large, integrated ventures.
- In addition, approximately >3M smallholders in the region produce FFB that are processed into >40% of CPO produced in the region.

Upstream: Mills

- FFB is transported to nearby mills where CPO and CPKO are extracted.
- Palm oil mills are typically part of large, integrated ventures and are supplied with FFB from owned plantations, scheme smallholders and independent smallholders.

Midstream & Downstream: Refinery & Processing

- CPO is transported to refineries for purification and removal of impurities.
- Refining process includes bleaching, deodorisation and fractionation.
- Refined oils are further processed downstream into edible oils, specialty fats and biodiesel.

Source of emissions & contribution to value chain emissions

- Land cover conversion
- Peat oxidation of palm
- Fertiliser use
- Field fuel use

~70-80%

- Methane from Palm Oil Mill Effluent (POME)
- Mill fuel consumption

~20-30%

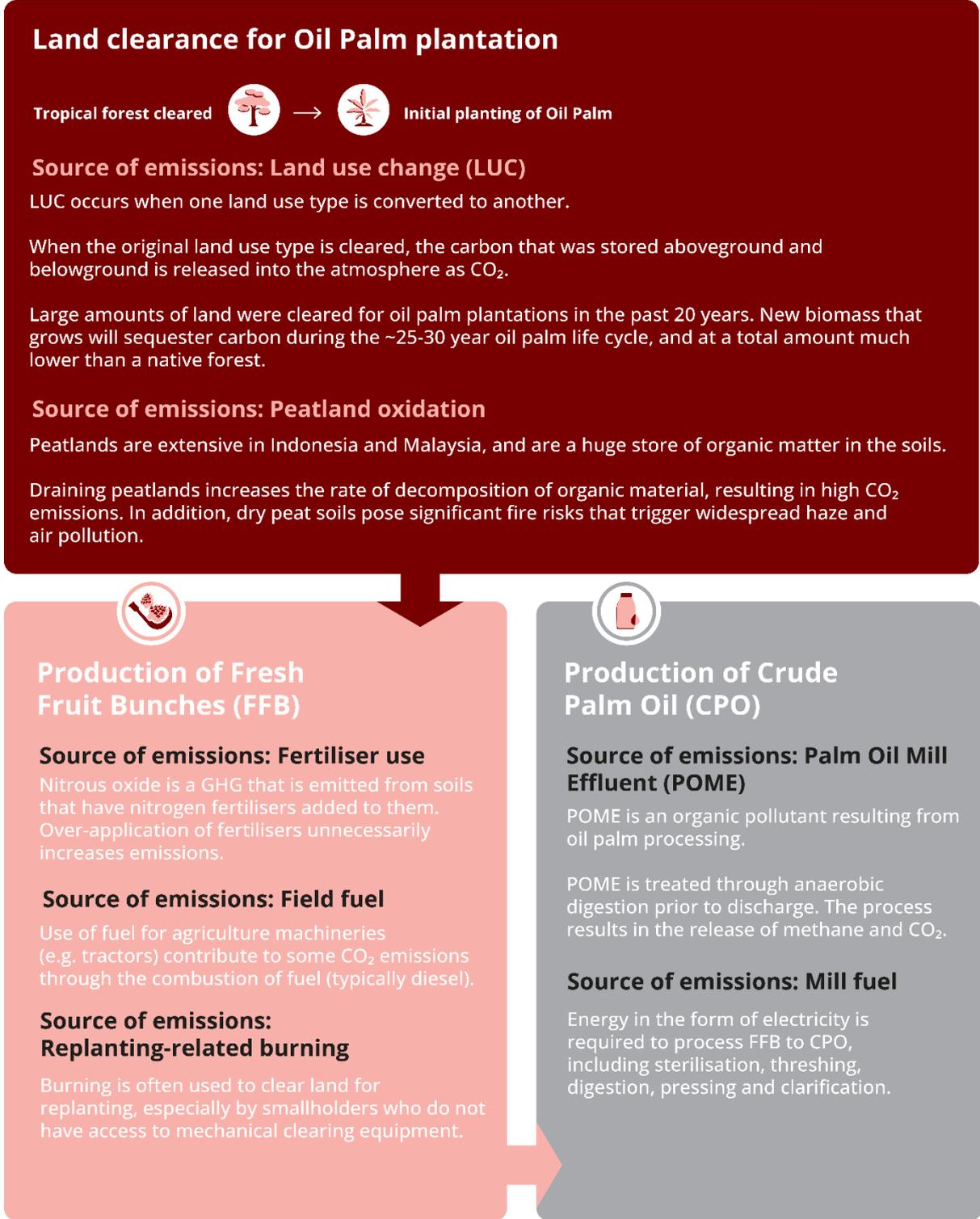
- Refinery / plants fuel consumption

~<5%

Due to recent historical and ongoing deforestation and cultivation on peatland, emissions from land use change and peatland oxidation account for the bulk of the lifetime emissions of palm oil production. Methane released by POME during the extraction of CPO at palm oil mills is another significant contributor. Together, plantations and mills are on average responsible for over 95% of gross GHG emissions associated with palm oil⁶¹. Our target focuses on our clients who operate in this part of the value chain (plantations and mills), whose actions have the most substantial impact on the emissions intensity of palm oil.

61 Schmidt & De Rosa (2020). Certified palm oil reduces greenhouse gas emissions compared to non-certified. Journal of Cleaner Production.

Figure 8 Main sources of emissions from palm oil production



Land use change emissions and accounting

Land use change occurs when one land use type is converted to another. When the original land use type is cleared, the carbon that was stored aboveground and belowground is released into the atmosphere as CO₂. When replaced with oil palm cultivation, the oil palm trees sequester carbon as they grow. As they have a lifecycle of ~25-30 years, oil palm can sequester significantly more carbon compared to annual oil seed crops such as soy and rapeseed.

The difference in carbon sequestration ability of the previous and current land use is the resulting net emissions from land use change. When oil palm plantations are established, the net land use change emissions varies significantly based on the previous land use. When established on grassland or other types of plantation land, oil palm plantations can theoretically lead to a negative net GHG emissions due to the sequestration of carbon in the oil palm crop. However, when established on forest and peatlands, which are large carbon sinks, there will be significant net positive land use change emissions. This is illustrated in the table below:

Table 1: LUC emissions intensity based on land cover*

Land cover cleared	Emissions intensity (tCO ₂ e/hectare)			
	Aboveground	Belowground	Soil	Total
Peat swamp	182	25	Not measured	207
Lowland forest	147	24	120	291
Rainforest	168	37	77	282
Grassland	6	8	Not measured	14
Oil Palm	20-60		Not measured	20-60

Deforestation and planting on peat are detrimental to both climate change and biodiversity, and must be halted. In addition to increasingly high sustainability standards of local palm oil certification schemes such as MSPO and ISPO (see Figure 4), other supportive policies in Malaysia include a cap on total land for oil palm cultivation at 6.5MHa, no more new planting in peatland areas and banning the conversion of forest reserve areas for oil palm cultivation. Indonesia has enacted a permanent forest and peatland moratorium. Progress is evident with the rate of deforestation slowing significantly to near record-low levels in Indonesia and Malaysia. Primary forest loss in Indonesia has reduced by 64% in the 2020-2022 period compared to 2015-2017. A similar comparison in Malaysia shows a 57% decline in deforestation, which remains low on an absolute basis and has declined from recent peak of 200kHa average per year in 2014-2016, to level off at ~70kHa per year in the last three years.

The GHG Protocol and other widely accepted carbon accounting standards amortise the impact of land use change emissions over a period of 20 years. Hence, only deforestation occurring in the last two decades will attract a land use change emissions accounting impact. The exponential growth of the palm oil industry to satisfy growing global demand is a relatively recent phenomenon as compared to other more established vegetable oils such as rapeseed and sunflower, and significant amounts of land were cleared for the expansion of oil palm plantations in the past 20 years. Strict adherence to NDPE commitments will ensure that the emissions intensity associated with palm oil sector will continue to decrease over time.

*WWF (2022) [Measuring and Mitigating GHGs: Palm Oil](#)

For the purposes of our baselining and target setting, we have included:

- Scope 1 and 2 emissions from plantation and milling clients in our portfolio. These are our clients' direct emissions from their own activities in planting and milling, and include emissions associated with land use change and peatland oxidation impacts, fertiliser and fuel use, as well as from the treatment and discharge of POME. Aligned to guidelines from the main standards and common reporting practices, negative emissions resulting from the sequestration of carbon in oil palm biomass, as well as from reforestation projects and in any conservation areas managed and maintained by our clients are also included in the scope of our emissions coverage.
- Scope 3 upstream emissions of integrated palm oil companies from sourcing of CPO from independent suppliers. While Scope 3 upstream emissions reporting is challenging and still a nascent practice today, increasing momentum by regulators, standard setters and companies in developing traceability solutions demonstrate a growing appetite and commitment from producers to denote non deforestation in the supply chain, while increasing engagement with their suppliers, and ultimately propagating sustainable practices in their supply chain. Ultimately, our inclusion of Scope 3 upstream emissions reflects the growing influence our clients have over the independent mills, traders and smallholders in their supply chain, and the role that larger producers can play to ensure smallholders are not excluded from the transition.

Design Decision D: Selecting a reference scenario

CIMB has anchored our reference scenario on the Science-Based Targets Initiative (SBTi) Forests, Land and Agriculture (FLAG) emission intensity pathway specific to palm oil commodity⁶², as it is the only credible and widely accepted science-based target specific to palm oil. The SBTi FLAG commodity pathway for palm oil is based on the key drivers of emissions intensity in plantation activities including land use change, peat oxidation, fertilizer, field fuel use and sequestration in palm biomass and conservation areas. The treatment and discharge of POME in palm oil mills is an additional significant source of GHG emissions not currently included in the SBTi FLAG pathway for palm oil. To account for it, we have scaled up the SBTi FLAG pathway for palm oil with emissions intensity associated with POME in line with scientific literature⁶³ (namely, Augmented SBTi FLAG Commodity Pathway for Palm Oil) while maintaining the same decarbonisation trajectory. This ensures that our reference scenario is consistent with our value chain coverage and covers >95% of the emissions intensity of palm oil.

Design Decision E: Establishing our baseline

Reporting standards continue to evolve with science, and a rigorous and comprehensive set of harmonised standards will emerge in the near to medium term, similar to the progress we have seen in other more mature sectors. However, the urgency of climate change and the significance of emissions from the Palm Oil sector creates an imperative to act now to accelerate decarbonisation of the industry. Hence, we have chosen to rely on best information available today, to begin playing our part. To measure the emissions from our portfolio, we have chosen to rely on multiple sources of data, in the following order of priority:

- **Company reported emissions from our clients' climate disclosures:** There is still a range of practices in the way different companies account for and disclose emissions, with best practice reporting adhering to all aspects of GHG protocol guidelines. However, we have observed a reasonably narrow level of distribution of reported emissions intensities within our clients' sustainability reporting. Based on this, we have proceeded with the assumptions that there is fundamental comparability in their accounting practices, and trust that our clients'

62 SBTi (2022).

63 Schmidt & De Rosa (2020): Certified palm oil reduces GHG emissions compared to non-certified, Journal of cleaner production.

sustainability reporting is the most holistic and accurate in capturing specific farming and milling practices that they have put in place

- **Calculated emissions from RSPO's PalmGHG Calculator:** Based on company inputs, and refreshed on a yearly basis through the mandatory Annual Communications of Progress (ACOP) reporting for all member clients. RSPO has designed the PalmGHG Calculator in accordance with globally accepted ISO Life Cycle Assessment (LCA) standards that allows members to estimate and monitor their net GHG emissions by providing detailed inputs including source of FFB, planted and conservation areas, POME treatments, farm and mill fuel usage etc.
- **Emissions intensity proxies anchored on SBTi and scientific studies:** Due to mandatory reporting required of all RSPO member clients, and voluntary reporting from a further number of non-RSPO member clients, proxies have only been adopted for the subset of our portfolio who are non-RSPO members and who do not voluntarily report their emissions. Our approach to proxy selection and application is as follows:
 - **Differentiates by producer country:** The proxies we have used are differentiated by producer country based on scientific data from the SBTi FLAG pathways. They are reflective of the pace of regulatory action and level of maturity of each market in adopting sustainable production practices.
 - **Incorporates methane emissions from POME:** In alignment with our reference scenario, proxies anchored on SBTi FLAG pathways are scaled up based on scientific studies to include mill effluent emissions.
 - **Conservatively assumes all clients without reported data produce only conventional palm oil:** Scientific literature on the emissions intensity of sustainable versus conventional palm oil is incorporated with the conservative assumption that all clients without company reported data produce only conventional palm oil, and no sustainable palm oil. Studies that exist currently only distinguish between the emissions intensity of RSPO versus non-RSPO certified palm oil, and we will look to incorporate further information on the emissions intensity reduction of other sustainability certifications as this information emerges, allowing us to more accurately reflect the emissions intensities of our clients who have been certified under other schemes.

In all the literature we have drawn from to develop our baselining methodology and proxies, we have chosen only to rely on science-based and credible literature. As reporting guidelines strengthen and our clients increase their reporting capabilities and scope, our confidence in our baseline measurements will continue to grow. In the meantime, we have relied on proxies from scientifically rigorous studies, which are widely accepted by the industry and several of our largest clients who are recognised industry leaders in sustainability.

At time of publication, GHG Protocol has been developing updated guidance for the Land Sector and Removals, which details how companies should account for and report GHG emissions and removals from land management, land use change, biogenic products, CO₂ removal technologies and related activities in GHG inventories. These guidelines are currently in the pilot stage and under consultation, and will be published in the near future. We expect these guidelines to help drive rigour and consistency in palm oil emissions reporting and will engage with our clients to encourage their adoption. While this may have an impact on our reference scenario and baseline reporting in the future, we welcome the increased clarity and harmonisation of reporting standards in the sector. Should the new GHG protocol result in significant shifts to our reference scenario, we will revisit our reference scenario and baselining approach, while engaging with our clients to encourage the adoption of the updated reporting standards.

Incorporation of upstream scope 3 emissions in our baseline

Traceability to plantation is an important focus for leading sustainable palm oil companies, and is an important first step to begin identifying and engaging with independent upstream suppliers and expanding the adoption of sustainable practices in their supply chain. It is also fundamental to enabling the inclusion of smallholders in the transition, thereby protecting and improving their livelihoods.

Traceability to plantation is a work in progress due to the challenging nature of FFB procurement from large numbers of independent smallholders and through complex and multi-nodal supply chains. Encouragingly, large integrated companies are setting targets to establish traceability to plantation, and increasing efforts to understand, report and improve on their emissions associated with FFB and CPO procured from independent traders and smallholders (their upstream Scope 3 emissions). Recent initiatives by MPOB and RSPO to develop reporting platforms supporting traceability, trade and deforestation-free certification, as well as the recently implemented EU Regulation on Deforestation-free Products (EUDR), will unlock further momentum in smallholder traceability.

Reporting on Scope 3 upstream emissions is still a nascent practice, and we will continue to engage with our clients and the broader palm oil ecosystem to find ways to facilitate its development. In the meantime, we have relied on our emissions intensity proxies associated with conventional palm oil production for Scope 3 emissions where reported data is absent.

Our Net Zero approach in the Palm Oil Sector

We finance plantation and mill companies, and integrated players across the region, most significantly in Malaysia and Indonesia. Accordingly, our baseline and reference scenario reflect a blended average of emissions intensity across our markets. Our 2022 baseline financed emissions intensity in our palm oil portfolio is 1.81 tCO₂e/tCPO. This compares to the average of 2.12 tCO₂e/tCPO in our reference scenario, reflecting the higher average maturity of our clients in their sustainability journey compared to the average in the region.

Consistent with our approach in other sectors where we have adopted a physical emissions intensity target, such as the Power and Cement sectors, our target for our financed emissions in the Palm Oil sector is to reach alignment in 2030 with the reference pathway towards Net Zero. As such, CIMB is targeting a 16% reduction in emissions intensity from our 2022 baseline year.

The increasingly supportive regulatory environment, NDPE commitments and mandatory MSPO and ISPO certification underpinned by continued demand from buyers and civil society, as well as growing levels of public awareness and support, provide us with a degree of confidence around the ability to achieve our target emissions intensity reduction. In addition, the EUDR entered into force on 29 June 2023 and applicable from 30 December 2024 is expected to provide additional immediate impetus for the adoption of sustainable practices for companies looking to access the EU markets. Despite these positive developments, challenges exist around the effectiveness of policy implementation and enforcement, and we will not count solely on these passive levers to reach our targets.

Instead, we will adopt an active stance in managing our portfolio and engaging with our clients to deliver on our target emissions intensity reduction. Our strategy includes the following active levers:

- Strict adherence to our NDPE policy through our [Sustainable Financing Due Diligence Procedures](#) conducted concurrently with credit and capital raising deal approval processes

CIMB has rolled out our NDPE commitment in 2022 to selected high risk sectors including oil palm, where we require clients with new plantation to conduct HCV assessment and commit to conservation of primary forests and HCV areas (including peat) prior to land clearing. Clients who do not fully comply with the requirements will be issued with action plan(s) with yearly progress checks. In 2022, 48 clients were requested to commit to action plans, which included establishing or strengthening NDPE commitments and improving compliance with sustainability certification requirements.

- Facilitate clients in their pursuit of sustainable palm oil certifications such as MSPO, ISPO, RSPO and ISCC. This is part of our [Palm Oil Sector Guide](#) requirements that is applicable to clients involved in oil palm plantations and manufacture of palm oil and its products. Financing support offered includes (among others):
 - Initial certification cost for uncertified clients, or cost of increasing certification coverage across more units of production, including the costs of any HCV land remediation, and activities such as land and soil assessments that can help guide planting practices for improved yield.
 - Ongoing operational costs in maintaining certification, such as conservation and maintenance of forestland, peatland and riverbank areas within the concession, and tightened replanting procedural guidelines.
- Increase financing to clients to help them deliver on their existing commitments and to co-develop initiatives to accelerate emissions intensity reduction. Financing needs could include:
 - Investment into R&D on yield improvement, and the operational cost of implementing yield improvement initiatives, such as replanting programs and the use of more resilient seed varieties.
 - Technology to optimise other farming inputs, including precision technology for the application of fertilisers and pesticides investment into conservation research, partnerships and projects to improve environmental sustainability and biodiversity within oil palm landscapes.
 - Investment into innovative growing and milling practices and technologies to further reduce the emissions intensity of palm oil production, for example regenerative agriculture, R&D in further optimising the biological processing of POME etcetera.
- Increase financing and other forms of support to clients in relation to upskilling, improving sustainability practices, and increasing yields for upstream smallholders, with a focus on economic inclusion and improving livelihoods of vulnerable groups. This could include:
 - Investment in technology and boots-on-the-ground manpower to improve traceability across the end-to-end value chain for our integrated clients.
 - Investment into our client's engagement and training efforts with upstream smallholders to propagate sustainable farming practices and regenerative agriculture, reducing associated emissions and improving yields and financial outcomes for smallholder communities.
 - Broader collaboration with clients to support their smallholder programmes, for example through support from CIMB's Corporate Social Responsibility programmes.
- Specific financing of circular economy applications such as biogas capture and power plant installation, methane capture and storage for bioenergy production, and other sustainable uses of palm oil agricultural waste.

- Installation of biogas capture facilities which can reduce emissions from POME by 90%. Additionally, biogas plant installations provide mills with an alternative power generation source for their own operations, as well as the potential to feed excess back to the grid where feasible. While this is economically viable for some mills today, especially larger capacity mills, penetration rates are low as some barriers still exist to increase its adoption, including long pay-off periods driven by a combination of significant capital outlay including for infrastructure required for grid connection, while returns are tied to energy potential of the POME and feed-in-tariff agreements⁶⁴. For mills in more remote locations, aggregation of POME or biogas is necessary for the production of bioenergy at commercial scale, with solutions and capital required for the attendant collection and storage of POME and biogas from mills dispersed across large distances. There is ample opportunity to provide ringfenced financing, especially with strengthening regulatory support and increasing collaboration between companies in the Palm Oil and Power sectors⁶⁵.
- Support for palm oil players in cross-sector efforts to commercialise and scale up the use of POME and other agricultural waste in the manufacture of sustainable biofuels, such as renewable diesel and sustainable aviation fuel from POME, and biomethane and biomethanol production from POME biogas.
- Zero-waste practices to supplement plantation and mill operations, such as usage of fibre and shell wastes as boiler fuel for mills, composting of Empty Fruit Bunches (EFB) for use as fertiliser. These practices have already been adopted by many large integrated palm oil companies and can continue to be propagated to smaller companies and independent smallholders.

“ I am delighted to learn that CIMB is embarking on pursuing a Net Zero target and plan for the Malaysian Palm Oil sector. This is indeed a noble ambition, as the financial sector ought to play its role in intensifying efforts to expedite progress towards Net Zero emissions.

In most plantation groups a very large percentage of direct GHG emissions arises from methane produced by mill effluent ponds. It is good to note that CIMB has green financing initiatives in place to assist palm oil mills in their own practices for positive outcomes in the long run. ”

M R Chandran

Chairman at IRGA Sdn Bhd / Advisor to RSPO

Additionally, we will engage our clients to support them in developing and/or improving their emissions reporting. This will bring increased transparency to our client emissions with reduced dependence on proxies, ensuring that clients' practices, including adoption of sustainable methods or technologies, will be accurately reflected in their emissions reporting, and enable growing confidence in our baseline. This also includes continued expansion of client reporting to cover their upstream Scope 3 emissions, a nascent but growing practice.

We will also extend engagement efforts beyond our clients, to the broader palm oil ecosystem in the region. Government plans are ambitious, as are the plans of our leading clients, and we remain dependent on their success to meet our targets. Therefore, we will actively engage with regulators, standard setters, NGOs and other key actors in the palm oil ecosystem and seek out opportunities

64 Loh et. Al. (2020). The Future of Biogas in the Malaysian Palm Oil Industry: Why Need Methane Capture? Palm Oil Developments Journal, MPOB.

65 Pertamina News Room (2023). PGN Collaborates with Three Japanese Companies and PTPN to work on the Biomethane Project.

for collaboration to enable and accelerate the decarbonisation of the sector in the region, whilst playing our part by standing ready to provide the financing necessary to achieve it.

Future developments and dependencies

NDPE commitments are key in reducing net land use related emissions from oil palm plantations, and halting deforestation is necessary to prevent further land use change emissions and biodiversity loss. While MSPO and ISPO mandates in Malaysia and Indonesia are creating an increasingly supportive regulatory environment in two of the largest producer nations, and the EUDR provides additional impetus for palm oil companies looking to access EU markets, our emissions reductions are dependent on the rigour and effective implementation of these policies and standards. In addition, the continued development of economic signals for CSPO demand via incorporation of sustainability requirements into procurement policies of FMCG companies and other large end-users of palm oil world-wide is critical, as is the willingness of buyers and end consumers to contribute to the higher cost of certified palm oil, which include for example, the cost of sustainability certification and audits, technology investments to increase traceability, and opportunity costs of setting aside HCV concession areas.

The transition requires bringing onboard more than three million smallholders in the region, and this segment is where the largest challenge to expanding the production of CSPO resides. The palm oil ecosystem of regulators, NGOs, producers and end-users must help expand the adoption of sustainable practices to smallholders within their sphere of influence, to bring smallholders onboard and deliver the social benefits of inclusion such as higher incomes from higher yields, and improved access to finance and services, alongside environmental sustainability, to this vulnerable group.

While the practices and technologies for CSPO production are largely developed and continue to improve, the data and reporting are still in flux, with the lack of a harmonised standard resulting in some variation between company reporting methodologies. We have chosen to set our targets on the best possible information available currently, a reflection of the urgency of climate change and the Palm Oil sector's contribution to GHG emissions, as well as our desire to be an agent for change in advance of harmonised standards and consistent reporting. We will continue to monitor the evolution of climate science with regard to the palm oil reference scenario and GHG reporting standards and incorporate significant updates in our approach, as well as engage with our clients to support them to do likewise in their own sustainability reporting and decarbonisation plans. We welcome the shift to better reporting as a catalyst for accelerating the production of CSPO. In the pursuit of greater accuracy and transparency, our baseline emissions and reference scenario may be prone to fluctuations in the near-medium term as methodologies evolve and begin to harmonise, and we have built in some conservatism in our approach in anticipation of future improvements in reporting standards and increased adoption.

“There are three touchpoints determining whether we can move in the right direction: (1) Government regulation, (2) the customers, major FMCG players of the world who are prioritising change in this respect and (3) the financiers, which is where CIMB comes in.

If we can work together as a collective, including industry associations with a direct stake in this matter advocating for changes, we can move in this direction. ”

Datuk Mohamad Helmy Othman Basha

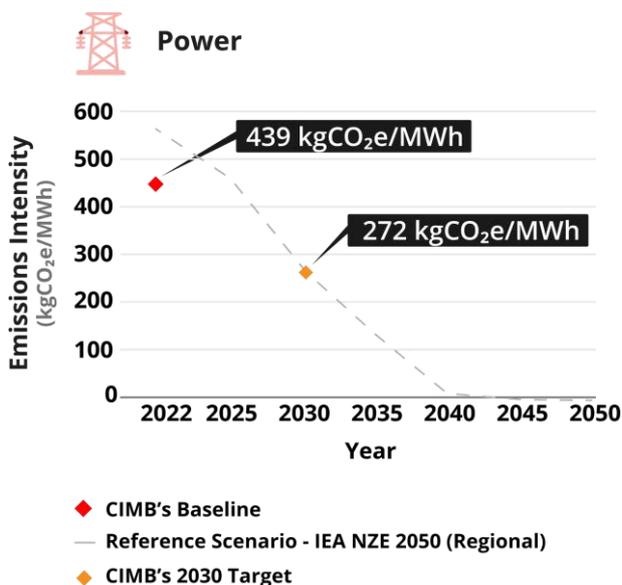
*Group Managing Director of SD Guthrie Bhd (formerly known as Sime Darby Plantation Bhd)
/ Chairman of MPOB*

7 Power Sector

7.1 Summary of Our Targets

Sector Highlights

- The Power sector will need to achieve Net Zero by 2040, ahead of other sectors, reflecting both its position as a dependency for other sectors, and the near-term viability of technologies (such as renewable power) for decarbonisation.
- As the Power sector decarbonises it will reduce Scope 2 emissions for other sectors, helping to keep exports from Southeast Asian economies internationally competitive by minimising the impact of carbon taxes from border adjustment mechanisms and maintaining demand from overseas purchasers planning to decarbonise their supply chains.
- Today, the dominance of fossil fuels in Southeast Asia's power mix remains significantly higher than in Western markets. A just transition in Southeast Asia will require balancing environmental sustainability with economic reliance and socioeconomic development in the largely emerging economies in the region.
- The need for power generation in Southeast Asia is expected to grow by 50% in the next decade, as per capita electricity consumption in the region catches up to more developed economies, given it is currently 20% that of OECD countries. In addition, the energy transition will require carbon intensive fossil fuel power generation, such as CFPPs, to be replaced with low carbon or renewable alternatives, and a larger share of renewable energy to be integrated into the power generation mix.



Metric

- Physical emissions intensity, i.e. kg of CO₂ equivalent per megawatt hour

Scope

- Scope 1 emissions of power generation clients (including electric utilities, power plants, independent power producers, renewable energy producers)

Decarbonisation Levers

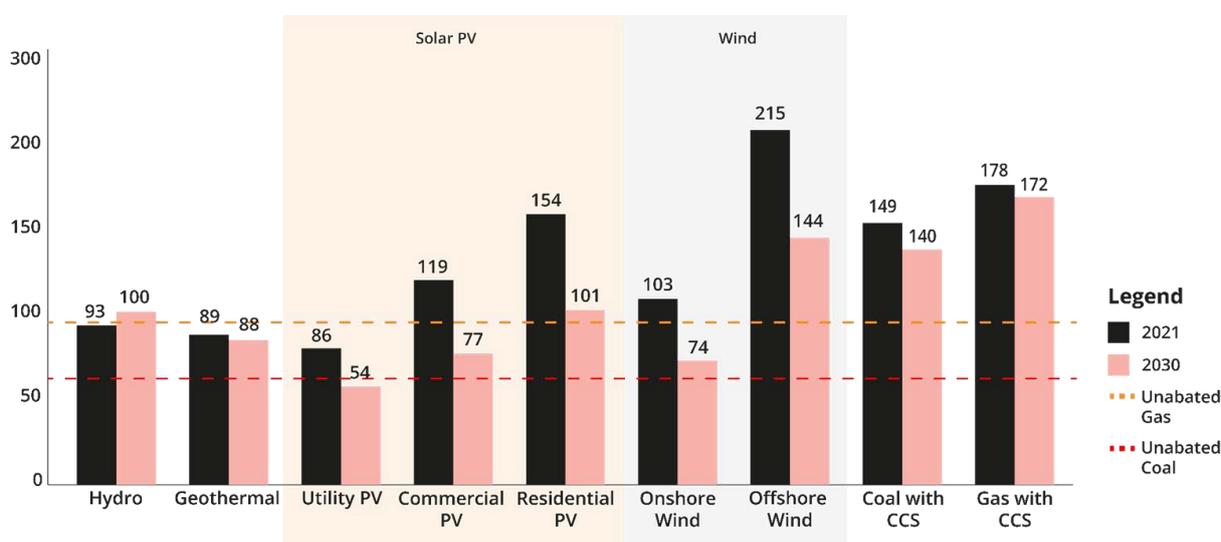
- Adherence to our commitments in the Coal sector and progressive enhancement of our Coal sector guide requirements towards a coal phase out by 2040
- Increasing the share of renewables financing in our portfolio
- Financing of CCUS technologies as a longer term post-2030 lever

7.2 Industry Overview

The Power sector is the largest contributor to GHG emissions globally, responsible for 40% of total emissions, largely due to the burning of coal and natural gas in conventional power generation. At the same time, power demand is expected to grow from 24,700 TWh in 2021 to 2.5x to reach 60,000 TWh by 2050 under the IEA NZE scenario⁶⁶, propelled by increasing populations and increasing consumption per capita, as well as the electrification of transportation and heavy industrial activities.

Across advanced economies, emerging markets and developing economies, the Power sector is the first energy sector required to achieve Net Zero, reflecting both its position as a dependency for other sectors, and the near-term viability of technologies such as renewable power for decarbonisation. Much of this technology is relatively mature and has already demonstrated commercial viability and scalability across multiple geographies. Renewable energy from sources such as wind, solar, and hydro power are already widespread, with significant policy support from governments globally. Costs of deployment have come down and continue to fall, making renewable energy among the cheapest sources of energy in the world.

Figure 9 Asia Pacific Average Levelised Cost of Electricity (LCOE) for Low Carbon Power Generation⁶⁷ (US\$/MWh)



Many Southeast Asian governments have adopted policies to accelerate the production of, and access to, clean and affordable energy. However, the region must also navigate through several challenges in the transition, including addressing a steep growth in electricity demand, overcoming the dominance of fossil fuels in the generation mix today, which include coal-fired power generation, and the relative youth of the coal-fired power plants compared to other markets. This will require Southeast Asia to almost triple current investments in renewables⁶⁸, and balancing sustainability with energy security and affordability will result in an energy transition that can vary in pace and shape across different countries.

In ASEAN, per capita annual electricity consumption is still only one-fifth that of OECD countries, and hence it is expected to rise by 50% in the next decade⁶⁸. This will require a dramatic increase in electricity generation to increase both power generation capacity and energy security, in addition to replacing energy currently produced through the direct burning of fossil fuels with cleaner sources. In line with the principles of an equitable transition, the 2023 update to the IEA

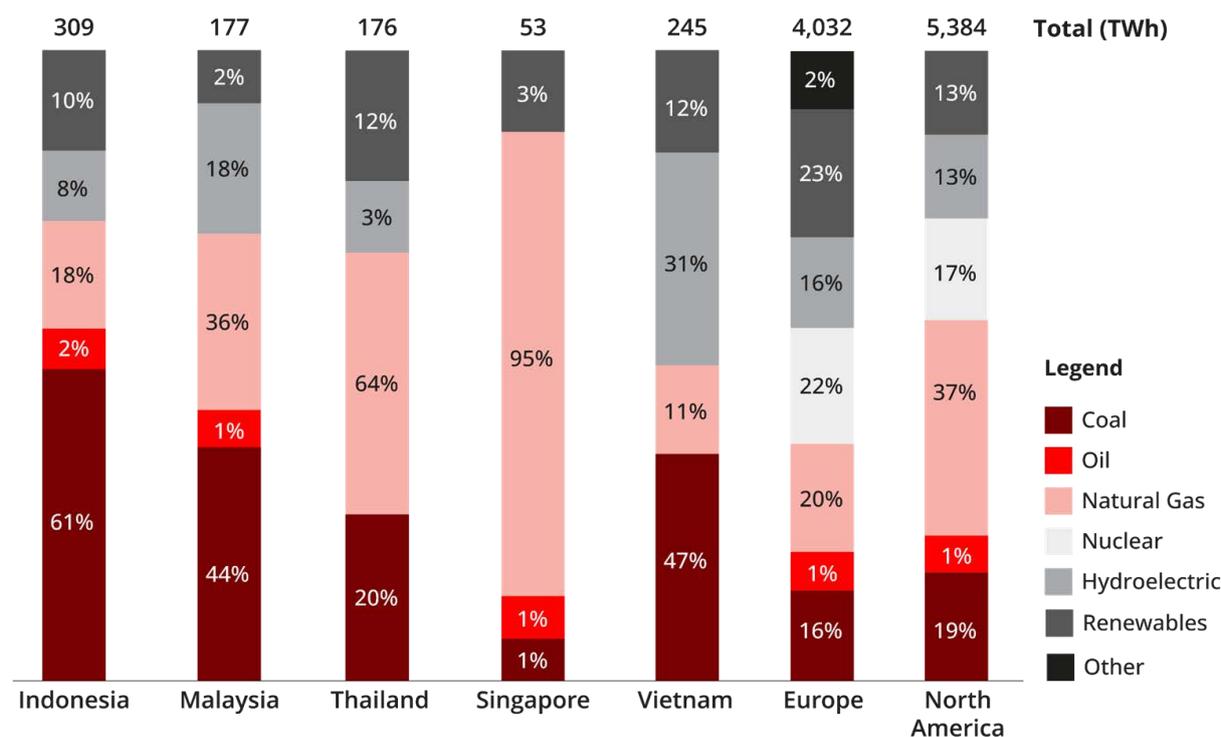
66 IEA (2022). World Energy Outlook 2022 (Revised Version November 2022).

67 Wood Mackenzie News Release (2022). Renewable power in Asia Pacific gains competitiveness amidst cost inflation.

68 IRENA & ACE (2022). Renewable Energy Outlook for ASEAN: Towards a regional energy transition (2nd edition).

Net Zero Roadmap⁶⁹ highlights the need for advanced economies on aggregate to reach Net Zero in the Power sector by 2035, China to do so by 2040, and other emerging markets and developing economies to follow suit before 2045.

Figure 10 Power Generation Mix by Country (ASEAN versus Europe and North America), 2021⁷⁰



For decades, the abundance of coal, natural gas and oil in the region has enabled Southeast Asian nations to provide a stable and affordable source of power generation to industries and communities, serving as a crucial driving force behind economic growth. Power generation has nearly tripled in the last two decades, driven strongly by an increase in coal and gas fired generation. The dominance of fossil fuels in Southeast Asia's power mix remains significantly higher than in Western markets. In addition, recent geopolitical tensions have resulted in high energy and food prices, which have been compounded by sustained inflationary pressures. This has shone a spotlight on the energy security vulnerabilities of the region, and their mechanisms in place to weather supply disruptions⁷¹. Crucially, energy security and affordability will continue to remain priorities in the emerging economies of Southeast Asia as it navigates the energy transition.

It is critical to note that due to the relatively recent growth in power generating capacity in ASEAN, this region has some of the youngest fossil fuel power plants in the world. Given that a typical coal-fired power plant has an average usable life of 50 years, this presents a challenge in the energy transition as retiring those plants early comes at an economic cost on top of the investment required in replacing them with renewable energy. These economic costs will be much larger in Southeast Asia than in developed markets, giving rise to real concerns that countries that are the least able to bear the cost of transitioning their Power sectors may be the ones that will have to spend the most.

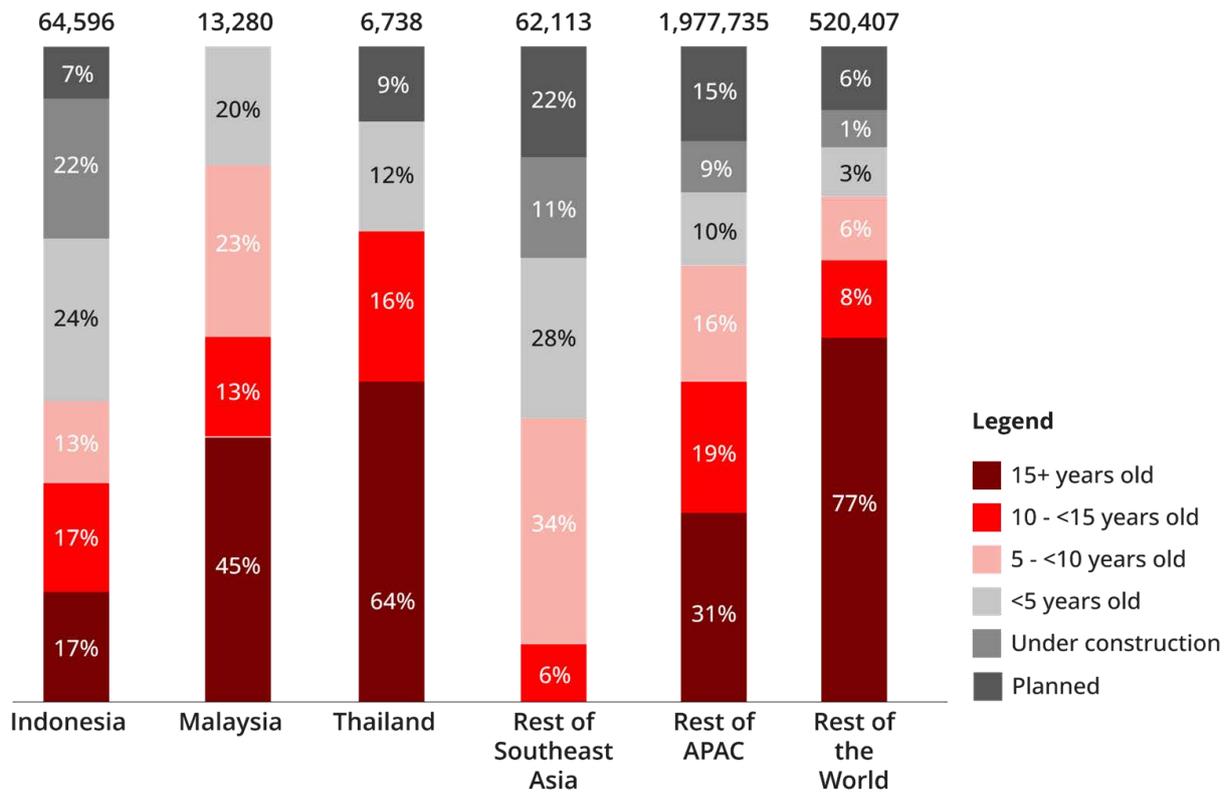
69 IEA (2023) Net Zero Roadmap: A Global Pathway to Keep the 1.5°C Goal in Reach (2023 Update).

70 Singapore: Energy Market Authority (2023). Singapore Energy Statistics 2023.

All other countries: BP (2022). Statistical Review of World Energy 2022.

71 IEA (2022). Southeast Asia Energy Outlook 2022.

Figure 11 Age of CFPPs in Southeast Asia versus Other Markets⁷²



In addition to retiring fossil fuel plants, a significant acceleration of renewable power generation capacity is required. Across many Southeast Asian markets, ambition levels of commitments and energy policies have ramped up in the recent 2-3 years. On aggregate, these policies are expected to deliver an additional ~300 TWh and ~800TWh of renewable energy to the power generation mix by 2030 and 2050 respectively from the current <200TWh⁷³.

72 Global Energy Monitor Coal Plant Tracker (2023), Coal-fired power capacity by country. Global Energy Monitor.
 73 IEA (2022). Southeast Asia Energy Outlook 2022.

Figure 12 Energy policies from selected Southeast Asian markets

Country	Policies																		
Malaysia	<p>Low Carbon Nation Aspiration 2040</p> <ul style="list-style-type: none"> • Percentage of renewable energy in Total Primary Energy Supply (TPES): 17% in 2040, from 7.2% in 2018 • Percentage of Coal in Installed Capacity to decrease to 18.6% in 2040, from 31.4% in 2018 <p>Malaysia Renewable Energy Roadmap</p> <ul style="list-style-type: none"> • Target of 40% renewables in the power generation mix by 2035, up from previous target of 20% in 2025 • Retire 7GW of coal-fired capacity by 2033 at the end of their 25-year PPA and no plans for new coal plants 																		
Indonesia	<p>Long-term Paris Compatible Scenario (LCCP) Power Generation mix</p> <table border="1"> <thead> <tr> <th>Fuel type</th> <th>Coal</th> <th>Gas</th> <th>Oil</th> <th>Renewables</th> <th>Bioenergy with CSS</th> </tr> </thead> <tbody> <tr> <td>2021</td> <td>59%</td> <td>21%</td> <td>4%</td> <td>16%</td> <td>0%</td> </tr> <tr> <td>2050 (LCCP)</td> <td>38%</td> <td>10%</td> <td>0%</td> <td>43%</td> <td>8%</td> </tr> </tbody> </table> <p>Carbon intensity of power generation: 104 kgCO₂/MWh including provision for CCS in bioenergy and CFPPs</p>	Fuel type	Coal	Gas	Oil	Renewables	Bioenergy with CSS	2021	59%	21%	4%	16%	0%	2050 (LCCP)	38%	10%	0%	43%	8%
Fuel type	Coal	Gas	Oil	Renewables	Bioenergy with CSS														
2021	59%	21%	4%	16%	0%														
2050 (LCCP)	38%	10%	0%	43%	8%														
Thailand	<p>Long Term Low Greenhouse Gas Emission Strategy</p> <ul style="list-style-type: none"> • 68% renewable electricity by 2040; 75% renewable electricity by 2050 • Phase out of all coal power plants by 2050 • All bioenergy plants fully equipped with BECCS 																		
Singapore	<p>Net Zero Emissions by 2050</p> <ul style="list-style-type: none"> • Gas continues to be the dominant fuel in the medium term; near term efforts to increase energy efficiency • Solar PV up to 3% and 10% of projected electricity demand by 2030 and 2050 respectively • Import of renewable electricity through regional power grids, targeting 30% of electricity demand • Low Carbon alternatives including green hydrogen strategies and CCUS in the long term (next 15-20 years) 																		

Currently, 15% of the energy in the region is delivered by hydropower, which continues to be responsible for the largest share of renewable electricity generation, and is expected to double by 2050⁷⁴. Solar PV and wind generation comprise less than 10% of total power generation currently, and will require accelerated development through the growth of both utility scale installations and distributed generation, requiring grid infrastructure upgrades. Solar PV and wind generation will also require storage infrastructure upgrades due to their intermittency, an issue that is less material for other renewable sources such as hydropower and geothermal power^{74,73}. In addition,

74 IEA (2022). Southeast Asia Energy Outlook 2022.

renewable resources are unevenly distributed across complicated geographies, especially for archipelago nations like Indonesia and the Philippines, or deep rural areas found across Southeast Asia such as certain places in Sarawak which are not connected by roads, let alone power grids, creating accessibility challenges for renewable electricity distribution to the many rural communities across the region.

Over the next decade of the transition, natural gas plays an important role in enabling the switch away from more carbon intensive fossil fuels such as coal and oil, meeting bulk generation needs and providing a stable baseload. Thereafter, and as the growth of renewable power generation accelerates, gas power

generation peaks and as it evolves into an enabler of renewable power integration⁷⁵. The policies (refer to Figure 10) will enable the proportion of fossil fuels in the power generation mix to peak between 2030-2040, and in the longer term the incorporation of CCUS into remaining fossil fuel generation will help to further eliminate carbon emissions.

Hydropower – Largest source of low-carbon electricity*

- It has been the backbone of low-carbon electricity generation, providing almost half of it worldwide today (hydropower's total capacity has risen by 70% over the last 20 years).
- Moving forward, given the flexibility of hydropower generation to adjust quickly to shifts in demand, it is a compelling option to support the integration of solar and wind.
- However, it is crucial to ensure hydropower projects adhere to strict guidelines and best practices to minimise sustainability risks while maximising social, economic and environmental advantages.

*[IEA \(2021\) Hydropower Special Market Report](#)

7.3 CIMB's 2030 Target in the Power Sector

Design Decision A: Target metric selection

We have chosen a physical emissions intensity metric for our baselining and target-setting, where we measure the amount of CO₂ released per unit of electric energy generated. Specifically, we are measuring kgCO₂/MWh. This metric has been commonly adopted across the banking industry, as well as by Power sector companies themselves, consistent with the need to meet growing demand for power while reducing emissions through the substitution of fossil fuel generation with renewable power. With this metric, we are incentivised to reduce our support to higher emitting forms of conventional power generation and increase our support for clean energy production, both of which help to accelerate the energy transition.

Design Decision B & C: Value chain and emissions scope coverage

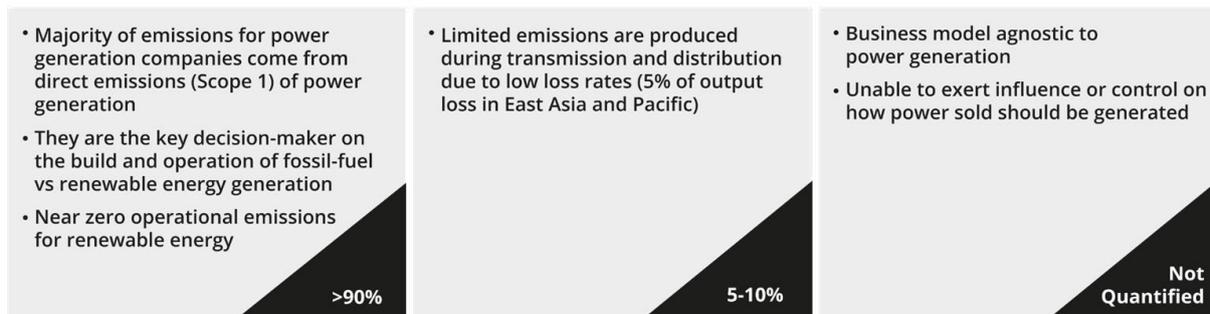
The power generation industry covers the generation of power through both conventional and renewable power plants, the transmission and distribution of that power through electric grids, as well as the retail, wholesale and trading of energy.

⁷⁵ IEA (2022). Southeast Asia Energy Outlook 2022.

Figure 13 Power Sector Value Chain^{76,77}



Source of emissions & contributions to value chain emissions



CIMB’s Power sector target focuses on the Scope 1 emissions from power generation. These are emissions directly made during the power generation process and largely arise from the burning of fossil fuels, leading to a great disparity between the Scope 1 emissions of fossil fuel burning power plants, which can emit hundreds of kilograms of CO₂ per MWh of power generated, and the Scope 1 emissions of renewable energy generation, which can be as low as zero. Scope 1 is the primary source of emissions across the Power sector value chain and is the area of focus for scientific pathways to Net Zero. Additionally, Power generation clients currently make up the majority of our exposure to the Power sector.

The transition to renewable power generation will require a significant increase in manufacturing capabilities for renewable power equipment such as solar PVs and wind turbines. At present, equipment manufacturers make up a very small portion of our total exposure and are not included in the target. However, we will look to increase the scope to include such companies in future iterations of the target.

Our current target excludes emissions from downstream activities in the power value chain from T&D and retailers. Direct emissions from T&D and retailers are limited, and there is a lack of data and suitable reference scenarios to inform a credible Net Zero ambition. In the longer term and as power generation shifts away from fossil fuels, downstream activities will start to increase in the significance of their contribution to the overall emissions from the Power sector. We aim to engage with the power industry to develop plans towards Net Zero in these activities and will consider expanding our target coverage to cover more of the value chain at an appropriate time.

76 IEA (2022). Southeast Asia Energy Outlook 2022.

77 Surana, K., Jordaan, S.M. (2019). The climate mitigation opportunity behind global power transmission and distribution. Nat. Clim. Chang.

Design Decision D: Selecting a reference scenario

The IEA's Net Zero Emissions by 2050 (NZE) reference scenario from the 2023 Net Zero Roadmap⁷⁸ forms the core guidance for our Net Zero ambitions in the Power sector. Anchoring on the updated IEA NZE scenario ensures that our pathway trajectory is aligned to keeping global warming at below 1.5°C. We have chosen to adopt a science-based scenario with wide acceptance amongst companies across the Power sector, financial institutions, and policy makers alike, which increases the credibility of our pathway trajectory and targets.

The IEA NZE is a global scenario, while our power generation clients primarily operate assets in Southeast Asia where there is a higher percentage of fossil fuels in the power generation mix. We have therefore enhanced our reference pathway with regional insights from the IEA Sustainable Development Scenario (SDS) to better reflect the realities in this region, such as the high emissions intensity starting point, and to chart a pathway to Net Zero that is feasible and equitable, safeguarding energy security and affordability along the way.

Design Decision E: Establishing our baseline

Our power generation clients are largely players who build, own and operate a mixture of power generation assets across conventional and renewable energy sources. We provide general financing to our clients at the Group level, as well as a mix of general and project financing to their subsidiaries who focus on a specific portfolio of their power generation assets. To establish a strong linkage between our financing and its impact, we have constructed our baseline from the underlying power generation assets whose construction, operations, maintenance and retirement we finance. Through this, we are able to recognise the specific activities that we finance – for example, where we finance a renewables subsidiary of a diversified power company and are able to demonstrate that our funds are used only for renewables, we will include this as financing for renewable energy generation, rather than for the whole diversified power company.

By constructing our baseline from detailed asset-level data, rather than relying on directly reported emissions data from our clients, we have been able to achieve a high level of data coverage and incorporate rich information, providing us with a high degree of confidence in our baseline calculations.

Our Net Zero approach in the Power Sector

Our 2022 baseline financed emissions intensity in the Power sector is 439 kgCO₂e/MWh. Our starting position is slightly better relative to our reference scenario and we are targeting to reduce our emissions intensity in the Power sector to achieve an emissions intensity of 272 kgCO₂ e/MWh in 2030, and Net Zero by 2040. This is consistent with the 2023 updates to the IEA NZE scenario, ensuring alignment with the required decarbonisation for the world to remain below 1.5°C warming above pre-industrial levels.

This is an ambitious target, given the context of many of the markets we serve in Southeast Asia, where energy security and the continued growth of affordable electricity supply for the growing population are imperatives for continued socio-economic development. Current national climate pledges and our clients' existing decarbonisation commitments have become more ambitious in recent years and are constantly evolving. CIMB will actively steer our portfolio, and proactively direct financing towards lowering emissions in the Power sector, in order to achieve the full emissions intensity reduction required for our 2030 Target.

⁷⁸ IEA (2023). Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach.

Our strategy involves the following elements:

- Adherence to our existing commitments to cease financing of greenfield thermal coal mining and CFPPs, or expansion of such projects, and periodic ratcheting up of our Coal sector requirements as client and industry readiness improves.
- For our clients who have a high dependence on coal for power generation, we will work with them to facilitate and accelerate the transition to renewable and low carbon sources, including through official managed phase out programmes, to facilitate early retirement of unabated fossil fuel power plants. We are conscious that early power plant closures may carry the risk of potential negative impacts on employees and communities, and we are committed to ensuring that in this event, our clients support retraining and reemployment of their affected workforces, and other dependent communities.
- Increase our portfolio exposure to new renewables financing. Southeast Asia's electricity demand is expected to triple from 2020 to 2050⁷⁹. This rapid rate of increase, driven by factors like electrification of transportation, heating and industrial activities, strongly drives our expectation for a significant increase in the demand for renewables financing. To capture these opportunities, we will seek to actively skew our portfolio towards financing renewable power generation capacity by offering dedicated ringfenced facilities for renewable projects. In addition, the expansion of renewable power generation has brought new entrants to the market dedicated to equipment manufacturing for, and the development and operation of, dedicated renewable energy asset and we will actively seek out financing opportunities with new clients in this segment.
- Financing CCUS and other enabling technologies. CCUS technologies are expected to take some time to mature and overcome technological barriers, such as increasing emissions capture rates and developing sufficiently scaled solutions for the utilisation or long-term storage of the captured CO₂, as well as the associated economic barriers to making these sufficiently affordable that CCUS is widely adopted. Given the current scale and stage of technological maturity of CCUS, the Group views it as a potentially significant lever after 2030.

CIMB's Coal Policy

- The phase out of coal powered generation is critical to keeping global warming at below 1.5°C. The IEA's NZE requires the ramp down of power generation from plants that burn low-quality grade coal (i.e. the most emissions intensive types of coal, such as lignite) worldwide by 2030, and the complete phase out of unabated coal generation by 2040 (i.e. coal-fired power plants that are not fitted with high-efficiency CCUS infrastructure).
- CIMB is fully committed to supporting the region's shift away from coal power generation. Since 2021, CIMB has ceased to provide new financing or capital raising for greenfield CFPPs and thermal coal mining, as well as the expansion of such projects, regardless of country of operation. We are committed to phasing out coal exposure from our portfolio by 2040 in line with 1.5°C consistent climate scenarios (refer to Section 4 for our target in relation to thermal coal mining).
- We will actively engage with our clients who are dependent on coal power generation to develop transition plans towards renewable power or low carbon alternatives, and continue to refine and enhance our policies in line with our Net Zero target in the Power sector.

⁷⁹ IEA (2022). Southeast Asia Energy Outlook 2022.

“ CIMB is paving the way for Malaysian and ASEAN banks by setting cautious yet ambitious Net Zero targets in the Power sector, all while remaining cognisant of the growing power demand in emerging and developing markets serviced by the bank.

The first and important step in a financial institution’s portfolio decarbonisation journey is setting targets and implementation plans, and CIMB is leading the industry in that regard. Targets set the tone for the bank and the markets it serves, and signal the direction of travel for some technologies. Most importantly, it recognises the financial risk in the Power sector if decarbonisation is not taken seriously. ”

Christina Ng

Managing Director, Energy Shift Institute

(Formerly Research Lead, Debt Markets for Asia Pacific, IEEFA)

Future developments and dependencies

Our targets are highly dependent on supportive policy choices at the national and regional level. While the increasing level of ambition of national commitments is encouraging, the realisation of commitments requires that these commitments are translated into detailed policies, such as changes to fossil fuel subsidies in the Power sector, and carbon taxes. These policies must continue to accelerate the large-scale development and deployment of renewable energy capacity in the region, and ensure that renewable generation is cost competitive to boost demand for it. Upgrades and expansion of supporting storage and other infrastructure must also be developed in tandem, while enhanced regional interconnectivity can help balance geographical supply and demand gaps.

Accelerating the phase out of coal-fired power plants in the region will be expensive, requiring specific financing solutions and partners that can bear the associated costs. We envisage the need for solutions like blended finance, as well as for donor funds from developed countries, philanthropic funds and other sources beyond governments in developing Southeast Asia who can both bear the cost and also focus on promoting the need for just transition.

With a diversity of renewables across the region, Southeast Asia is well placed to integrate a large share of renewable energy into the power generation mix. The transition has already begun and will require balancing environmental sustainability with economic resilience and socioeconomic development in the largely emerging economies in the region. Our targets reflect the potential for change in the region, as well as the need to achieve this through a just transition.

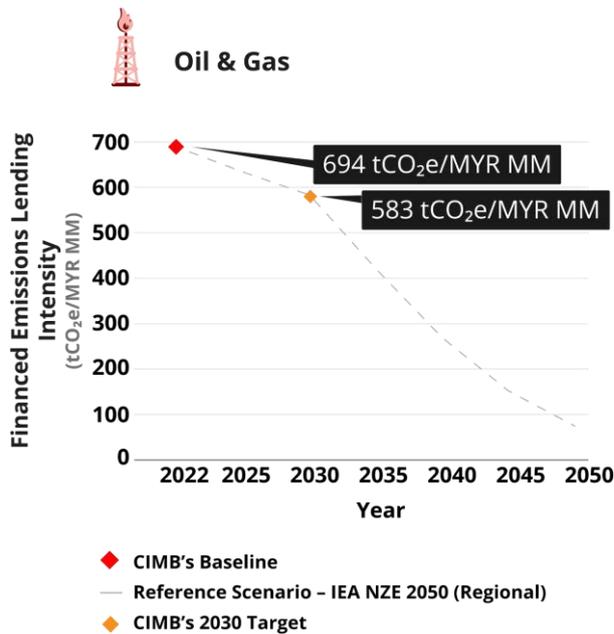
8 Oil and Gas Sector

8.1 Summary of Our Targets

Sector Highlights

- The Oil and Gas sector plays a crucial role in the global economy, serving as a critical enabler for economic growth due to the abundance and relative affordability of both oil and gas. In particular, our transportation systems are heavily dependent on oil, while gas has entrenched itself as a fuel of choice for heating, cooking, and in vital industrial processes. Natural gas also accounts for about a quarter of global electricity generation.
- Oil and gas production and consumption have significant carbon footprints, accounting for an estimated 41% of all global greenhouse gas (GHG) emissions^{80, 81}. Achieving Net Zero requires a near-complete substitution of conventional oil and gas products with renewable and low-carbon alternatives. This entails a comprehensive transformation of end-use sectors (e.g., transportation, power generation, heavy industrials), as well as the steady decline in oil and gas production. As the substitution of oil and gas products accelerates, the IEA NZE posits that additional exploration and production at new oil and gas sites is no longer required moving forward since 2021.
- In the ASEAN region, fossil fuels continue to dominate today at 77% of primary energy supply⁸² and play a vital role in driving robust economic growth and providing employment. In Malaysia, the sector contributes approximately 28% of GDP and helps provide employment for a quarter of the nation's total workforce. It is also a key source of national income, with petroleum-related products contributing to 31% of fiscal income, and energy exports contributing 13% of total export value⁸³.
- While ASEAN national commitments to decarbonise have been increasing in ambition, striking a balance across the energy trilemma of energy security, affordability and sustainability is paramount as the region navigates a just transition. The ASEAN region is still heavily reliant on coal for power generation and heating, and natural gas is a crucial transition fuel for the region particularly in the switch away from coal for power generation. Natural gas also serves as a necessary medium-term back-up for highly variable and intermittent wind and solar power sources, which is critical to stabilise the grid in the shift towards renewables.
- While there is continued growth in energy demand, and there are still many challenges to work through with the transition in the region, oil and gas demand is expected to peak by 2030 and decline steadily thereafter, based on current policies. Operating under the anticipation of an eventual decline in the demand for oil and gas, companies in this sector have already started to diversify their businesses, towards supporting an energy system that is increasingly reliant on renewables and low carbon fuels such as biofuels and hydrogen. Meanwhile, as the energy transition will still require continued oil and gas usage in the short-to-medium term, oil and gas companies will also have to take measures to reduce the emissions intensity of their operations.
- Our targets are designed to highlight and steer much needed capital to the sector in support of diversification into renewables and low-carbon fuels, and reduction in oil and gas operational emissions, while limiting capital in critical areas such as new oil exploration and production.

80 IEA (2023). World Energy Outlook 2023: Emissions from Oil and Gas Operations in Net Zero Transitions



Metric

- Financed Emissions Lending Intensity (FELI)

Scope

- Our targets cover upstream Exploration and Production (E&P) companies (excluding companies focused solely on ancillary services) and integrated companies across the value chain, including:
 - Scope 1 and 2 emissions from exploration, extraction, transportation, and refining activities
 - Scope 3 downstream emissions from end-use of oil and gas products, including energy-related combustion

Sectoral commitment

- From 1 January 2025, no longer provide new dedicated financing for new oil field projects approved for development after 31 December 2021

Decarbonisation Levers

- Supporting and financing the diversification of our oil and gas clients' businesses into renewables, low-carbon fuels and related infrastructure
- Actively supporting our oil and gas clients to reduce operational emissions intensity and producing more efficiently
- Facilitating our clients in developing, fulfilling and accelerating robust Net Zero strategies

8.2 Industry Overview

The Oil and Gas sector is crucial to our economy, serving as a critical enabler for socio-economic development. Together, oil and gas account for 55% of global energy consumption⁸⁴. Oil is indispensable in today's transportation sector, fuelling trade, commerce and connectivity on a local, regional and global level. Natural gas, due to its versatility, abundance and ease of storage and distribution, has entrenched its position as the fuel of choice for power generation, heating, and vital industrial processes. However, the sector is a major contributor to the global carbon footprint. The extraction, production and transportation processes of oil and gas generates approximately 11% of total global GHG emissions, while the combustion of oil and gas is responsible for another 30%^{85,86}.

In order to achieve the Paris goal of keeping global temperature rise below 1.5°C, we will need to decouple our economy from its reliance on fossil fuels, and significantly reduce their consumption by 2050. In addition to phasing out coal, the clean energy transition will be driven by direct substitution of oil and gas products with renewables and biofuels. Between now and 2050, the IEA NZE stipulates that global oil and gas consumption will have to decline by 78% and 90% respectively⁸⁵, with residual use largely limited to non-energy purposes such as in petrochemicals,

81 Our World in Data (2020): Sector by sector: Where do global greenhouse gas emissions come from?

82 IEA (2022). Southeast Asia Energy Outlook 2022.

83 Ministry of Economy, Malaysia (2023). National Energy Transition Roadmap.

84 Energy Institute (2023). 2023 Statistical Review of World Energy.

85 IEA (2023). World Energy Outlook 2023: Emissions from Oil and Gas Operations in Net Zero Transitions.

86 Our World in Data (2020): Sector by sector: Where do global greenhouse gas emissions come from?

and in sectors that lack low-carbon technology or where emissions can be abated via Carbon Capture, Utilisation and Storage (CCUS). The pathway necessitates a strong immediate response to the problem of operational emissions, and ultimately, a dramatic reduction in oil and gas production as end-use sectors transition to renewable and low-carbon alternatives. Consistent with the stagnation and eventual decline in demand for conventional oil and gas products, the IEA NZE scenario posits that renewable energy scales at a sufficiently rapid pace and cuts global fossil fuel demand by more than 25% by 2030, such that additional exploration and production of new oil and gas sites is no longer required moving forward since 2021.

Navigating the transition requires a fundamental reorientation of key systems, processes and infrastructure towards low-carbon fuels and green technologies. Globally, the last decade has seen encouraging progress, with improved access to clean energy technologies, propelled by supportive policies, rapidly expanding markets and falling costs. In alignment with this, the updated IEA NZE scenario maintains a positive outlook on the expansion of electrification and renewable power through to 2030, with global manufacturing capacities for solar PV and electric vehicle batteries ramping up at pace to meet projected demand in 2030⁸⁷.

Beyond 2030, we will require vital technologies such as green hydrogen, green hydrogen-based fuels and modern bioenergy to reach technological maturity, commercial viability and scalability, to further reduce our demand for unabated fossil fuels, especially in heavy industry and long-distance transport. Similarly, carbon mitigation technologies such as CCUS are also critical to scale abated fossil fuels. While these technologies are expected to contribute to one-fifth of global emissions reductions between 2030 and 2050 under the IEA NZE⁸⁸ their contribution in the near term is limited due to slower than expected technological and market development and progress.

The ASEAN region, where most of CIMB's oil and gas clients are located, is an important producer of fossil fuels, with rich reserves of coal and significant reserves of oil and gas. Fossil fuels have played a vital role in driving robust economic growth and providing employment. For example, the energy sector in Malaysia contributed approximately 28% of GDP and employed 25% of the total workforce. It is also a key source of national income, with petroleum-related products contributing to 31% of fiscal income, and energy exports contributing 13% of total export value⁸⁹. Jobs and business opportunities created in the energy sector also lead to economic multipliers in energy-related supply chains, thereby contributing positively to the socio-economic development of the region.

Fossil fuels also remain the dominant source of primary energy in ASEAN, accounting for 77% of total primary energy supply⁹⁰. Oil demand has risen by ~25% since 2000, in large part driven by a quadrupling of private vehicle ownership, and significant increase in truck-based freight activity⁸⁸. Over the same period, the expansion of electricity generation to support rapid urbanisation in the economy have resulted in an 80% increase in natural gas consumption⁸⁸. However, energy demand growth continues to outpace local production, making energy security a key concern for the region. ASEAN has been an aggregate importer of oil since the mid-1990s, and is likely to be a net importer of gas by 2025 under current policies⁹⁰. Thailand imports 65% of its Total Energy Supply in 2020⁹¹, while the share of the oil and gas sector in GDP for Indonesia declined from 10.1% in 2000 to 2.4% in 2021⁹². This increased reliance on volatile global oil and gas markets is set to rise sharply in the decades to come, providing additional impetus for the region to accelerate the transition to renewables and low-carbon fuels.

87 IEA (2023). Net Zero Roadmap: A Global Pathway to Keep the 1.5°C Goal in Reach (2023 Update).

88 IEA (2023). World Energy Outlook 2023: Emissions from Oil and Gas Operations in Net Zero Transitions.

89 Ministry of Economy, Malaysia (2023). National Energy Transition Roadmap.

90 IEA (2022). Southeast Asia Energy Outlook 2022.

91 IRENA (2023). Energy Profile: Thailand.

92 IEA (2022). An Energy Sector Roadmap to Net Zero Emissions in Indonesia.

By leveraging the wealth of solar, wind, geothermal and hydropower renewable resources, ASEAN nations are in a good position to pivot to renewable alternatives to fossil fuels. However, the region must contend with several fundamental and well-recognised challenges in the process of navigating a just transition compatible with inclusive development. First, the rapid phase out of carbon-intensive thermal coal, which currently accounts for 26% of the region's energy supply⁹³. Secondly, the doubling and integration of renewables unevenly located across vast distances required, in which old and fragmented grid infrastructure must be upgraded and expanded, and storage capacity built up to tackle the intermittency of renewable sources. Thirdly, beyond pursuing a low emissions transformation of the power sector, the region needs to expand the use of green energy in hard-to-abate sectors including aviation, shipping and heavy industry. This will rely on immature green fuel and carbon capture and storage (CCS) technologies to reach commercial viability and scalability, and is therefore only expected to contribute to emissions reductions at scale after 2030.

These challenges highlight the need for natural gas as a transition fuel for the region, reducing carbon emissions in the near term by replacing the use of more polluting fossil fuels such as coal, and serving as back-up for highly variable and intermittent wind and solar power. While it is clear that the path to Net Zero cannot be achieved by switching between unabated fossil fuels, the temporary substitution of more carbon-intensive fossil fuels with natural gas enables much needed short-term emissions reductions in challenging geographies and hard-to-abate industries. This is especially relevant for the ASEAN region, where power generation and heating are still heavily reliant on coal, and where hard-to-abate sectors such as shipping and heavy industry are significant contributors to local economies.

The role of natural gas as a transition fuel

Coal power plant retirement is an important step in aligning with Net Zero pathways. Many ASEAN member states are signatories to the international effort to end coal utilisation in power generation, with Brunei, Indonesia, The Philippines, Singapore and Viet Nam signing on to the Global Coal to Clean Power Transition statement at COP26. These commitments cover three-quarters of ASEAN's coal emissions⁹⁴.

The emissions intensity of natural gas is half that of coal (median emissions intensity of 370 kgCO₂/MWh vs. 760 CO₂/MWh⁹⁵), and as such, replacing coal with natural gas in cases where renewables are not yet technologically or economically viable, presents a compelling option to help sharply reduce emissions in the near term.

Natural gas is a cost-effective, reliable, and easy-to-store lower-carbon alternative to coal in providing uninterrupted, flexible energy supply in tandem with wind and solar energy, which can help provide stable baseload to the power grid while storage technologies are being scaled. As part of Malaysia's Natural Energy Transition Roadmap (NETR), natural gas is expected to act as a lower-carbon transition fuel to replace coal, and will be the dominant source of fuel for baseload power.

There is also significant potential for the expanded use of natural gas to reduce near term emissions in a region where more than 30% of the population still do not yet have access to clean cooking and electricity in 2020⁹³. In a region that is grappling to increase energy self-sufficiency, expand access to electricity, and address its emissions footprint, natural gas presents an interim solution as a transition fuel to help the region advance in its decarbonisation journey.

93 IEA (2022). Southeast Asia Energy Outlook 2022.

94 IRENA (2022). Renewable energy outlook for ASEAN.

95 IPCC AR 5 (2014). Working Group III - Annex III - Technology-specific Cost and Performance Parameters.

Despite continued growth in energy demand and the challenging nature of the energy transition in the region, oil and gas demand in ASEAN is expected to peak by 2030 and decline steadily thereafter based on current policies. Under a Net Zero scenario, while we will still rely on oil and gas companies to continue extraction from current oil and gas fields to meet near term needs, the IEA posits that the additional exploration and production of new oil and gas sites is not required from 2021.

ASEAN member states have ratcheted up their climate ambition levels in recent years, the majority of whom have indicated a desire to achieve Net Zero emissions around mid-century. For example, the National Energy Transition Roadmap (NETR)⁹⁶ released in 2023 is a policy directive aimed to steer Malaysia's shift from a traditional fossil fuels-based economy to a high-value green economy. Key energy transition levers underpinning the transition include renewable energy, hydrogen, bioenergy, green mobility and CCUS, with 50 initiatives already identified. Beyond emissions reduction, these initiatives are expected to attract investments of more than MYR 25 billion and create 23,000 job opportunities per year between 2023 and 2050.

With inevitable systemic shifts in national policies and economies, oil and gas companies will need to begin diversifying their businesses in earnest to stay relevant in the Net Zero economy, with many oil and gas companies already starting to put their balance sheet and technological capabilities to work in developing and scaling low and zero-carbon alternatives to oil and gas products. The renewable energy sector has the potential to unlock substantial economic opportunities for the region, with reports from the Asian Development Bank indicating potential revenues of USD160-200 billion and a supply of over 2 million jobs within renewable energy manufacturing in the region up to 2030⁹⁷. In fact, some of our clients have already started to invest heavily in R&D and the early production of green fuels and technologies of the future. We stand ready to support and catalyse these transformational endeavours.

Given the crucial role that we expect many of our oil and gas clients to play in enabling the energy transition, we have designed our targets and methodology such that we are able to channel much needed financing towards our oil and gas clients in their pursuit of emissions reduction and energy transition opportunities. At the same time, we have ensured that our targets are in alignment with a steady phase down and eventual phase out of fossil fuels, that ultimately defines the path to Net Zero.

⁹⁶ Ministry of Economy, Malaysia (2023). National Energy Transition Roadmap.

⁹⁷ Asian Development Bank (2023) Renewable Energy Manufacturing Opportunities for Southeast Asia.

Figure 14 Climate-related policies from selected Southeast Asian markets

Country	Policies
Malaysia	<p>Low Carbon Nation Aspiration 2040</p> <p>2026-2030</p> <ul style="list-style-type: none"> • Phase down broad-based energy subsidies • Grow gas-based petrochemical hubs; invest in regasification terminal for energy security • Capture growth with LNG uptake in marine bunkering • Enhance oil and gas services and equipment players' capacity through consolidation and international participation <p>2031-2040</p> <ul style="list-style-type: none"> • Scale electric vehicles penetration domestically • Capture growth opportunities of biofuels in marine & aviation sectors • Adopt large-scale energy storage for renewables • Establish globally competitive hydrogen export hub in Sarawak <p>National Energy Transition Roadmap Initiatives</p> <p>Biofuels Hub</p> <ul style="list-style-type: none"> • To develop in Pengerang, Johor to produce SAF, HVO, ASF* and biochemicals <p>Co-Firing of Hydrogen and Ammonia</p> <ul style="list-style-type: none"> • Green hydrogen and ammonia co-firing in collaboration with Petronas to decarbonise TNB generation plans <p>Sarawak Hydrogen Hub</p> <ul style="list-style-type: none"> • Implementation of three integrated projects to produce green hydrogen to propel Sarawak as a regional green hydrogen hub <p>Kasawari and Lang Lebah CCS</p> <ul style="list-style-type: none"> • Implementation of CCS projects in high CO₂ gas production field and stored; expected to be in operation in 2026 and 2028 respectively
Indonesia	<p>Just Energy Transition Partnership</p> <ul style="list-style-type: none"> • Funding value of USD 20 BN to accelerate the decarbonisation of the energy sector • Reach Net Zero emissions in the Power sector by 2050 (10 years ahead of original plan) • Accelerate widespread deployment of energy efficiency and electrification
Thailand	<p>Long-Term Low Greenhouse Gas Emissions Development Strategy</p> <ul style="list-style-type: none"> • Coupled with the provision of incentives to support low carbon fuels (biofuels, hydrogen), improve energy efficiency and promote electric vehicles • Strong push towards renewables — ambition for the share of renewable electricity to be 68% in 2040 and 74% in 2050

*SAF = Sustainability Aviation Fuel, HVO = Hydrotreated Vegetable Oil, ASF = Advanced Sustainable Fuel

Source: Malaysia National Energy Policy 2022-2040; Malaysia National Energy Transition Roadmap; Indonesia Just Energy Transition Partnership; Thailand Long-Term Low Greenhouse Gas Emissions Development Strategy

8.3 CIMB's 2030 Targets in the Oil and Gas Sector

Design Decision A: Target metric selection

The clean energy transition will require the substitution of oil and gas-based energy sources with renewable and low-carbon alternatives. However, the rate of substitution is expected to be slower in ASEAN compared to the global average pace where, under an IEA NZE scenario, global oil and gas demand is expected to have peaked in 2022 and to decline by 32% by 2030⁹⁸; while the decline expected in ASEAN by 2030 is 16% by 2030⁹⁹.

Under current energy policies, oil and gas demand in ASEAN is expected to peak by 2030, and then steadily decline through to 2050, with demand pivoting away from use for energy, and towards petrochemical manufacturing. Given the diminishing but still significant reliance on oil and gas, especially before 2030, as well as the region's economic reliance on the sector, it is vital that oil and gas companies are supported in their efforts towards cleaner production in the short term. Ultimately, oil and gas companies will have to pivot their businesses to remain relevant in the new clean energy economy and will require significant capital to facilitate their transformation.

Our primary ambition is to ensure we are aligned with a trajectory to Net Zero by 2050 through a steady reduction of oil and gas production. This requires us to support our clients through the transition and facilitate their diversification into renewable and low-carbon alternatives. However, we also recognise the significant challenges in the energy transition in ASEAN, and a reduction in absolute emissions in the short-term would be difficult to achieve based on current national government plans. We have therefore chosen to set a 2030 Target to reduce the Financed Emissions Lending Intensity (FELI) of our oil and gas portfolio.

Figure 15 Financed Emissions Lending Intensity (FELI) equation

Financed Emissions Lending Intensity (FELI)	$= \frac{\sum \left(\frac{\text{Total financing to company}}{\text{Company value}} \times \text{Company emissions} \right)}{\text{Total sector financing}}$
Total financing to company	The sum across all of CIMB's in-scope financing (i.e. corporate lending facilities, investment held for sale or maturity and equity capital market (ECM) / debt capital market (DCM) facilitation) to a company
Company value	Enterprise Value Including Cash (EVIC) i.e. the sum of the market capitalisation of ordinary and preferred shares at year-end, the book value of total debt and minorities' interests, without the deduction of cash or cash equivalents; or Total Debt and Equity for private companies
Company emissions	Company's reported or estimated emissions
Total sector financing	The sum across all of CIMB's in-scope financing (i.e. corporate lending facilities, investment held for sale or maturity and ECM/DCM facilitation) to the sector

98 IEA (2023). World Energy Outlook 2023: Emissions from Oil and Gas Operations in Net Zero Transitions.

99 IEA (2022). Southeast Asia Energy Outlook 2022.

We first calculate our financed emissions across the entire portfolio, which is represented as the sum of our share of our clients' absolute emissions based on the significance of our financing relative to the Enterprise Value Including Cash (EVIC) or Total Debt and Equity, in line with PCAF guidance. We then calculate the intensity of our financed emissions by dividing the financed emissions by the amount of our total financing and investments in the sector. Our target metric therefore represents our financed emissions per million Malaysian Ringgit (MYR MM) of financing that we extend to the sector.

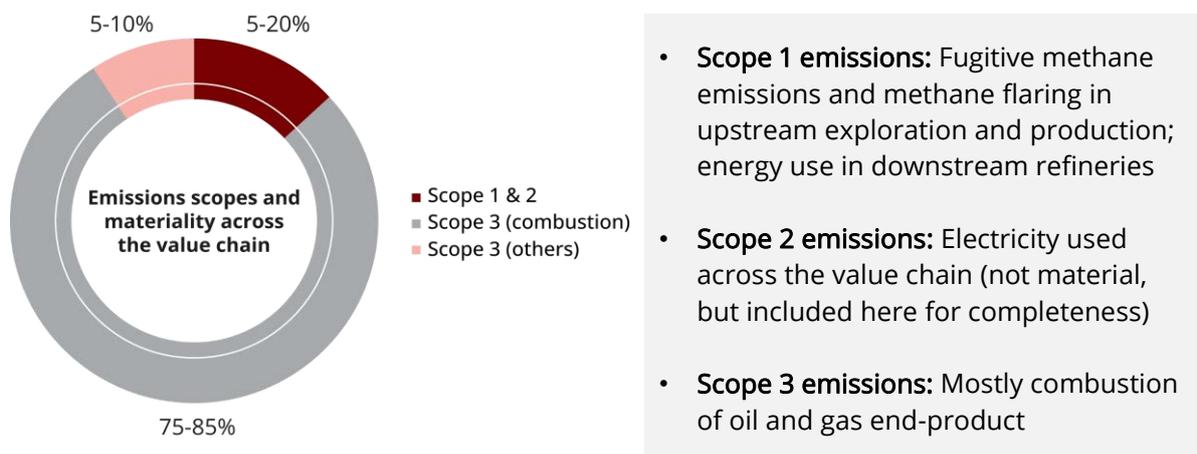
This enables us to manage our financed emissions independently of our portfolio size, allowing us to channel much needed funding to clean energy transition opportunities and the cleaner production of current oil and gas facilities to meet residual demand, while ensuring we support all aspects of the energy trilemma across energy security, affordability and sustainability in the ASEAN region.

Design Decision B & C: Value chain and emissions scope coverage

Unlike end-use sectors such as Power that are directly involved in the combustion of oil and gas, 80-95% of emissions of the Oil and Gas sector arise from its Scope 3 emissions. The combustion of oil and gas end-products for energy constitutes 75-85% of overall sector emissions.

Scope 1 and 2 emissions from exploration, production, transportation and refining activities directly generate most of the remaining 5-20% of Oil and Gas sector emissions¹⁰⁰. Upstream operations account for more than half of these direct emissions, primarily from methane leakage from oil and gas wells. In addition, electricity is used within the value chain of oil and gas production, contributing to Scope 2 emissions. All scopes of emissions (1, 2 and 3) are therefore included in target-setting, in line with industry standards, including PCAF guidance.

Figure 16 Oil and Gas Emissions Scopes



Addressing methane in the Oil and Gas sector

The energy sector accounts for nearly 40% of methane emissions from human activity¹⁰¹. Addressing methane leaks is crucial as methane is a potent greenhouse gas with significantly higher warming potential than carbon dioxide, albeit with a shorter atmospheric lifetime. The Global Methane Pledge was launched at COP26 where participants agree to reduce global methane emissions by at least 30% from 2020 levels by 2030. Governments in ASEAN including Malaysia, Indonesia, Singapore, Vietnam, Cambodia, Laos and the Philippines have actively signed up to the pledge¹⁰², alongside 50 oil and gas companies that are responsible for half of

¹⁰⁰ CDP (2023). CDP Technical Note: Relevance of Scope 3 Categories by Sector.

¹⁰¹ IEA (2023). Methane Abatement.

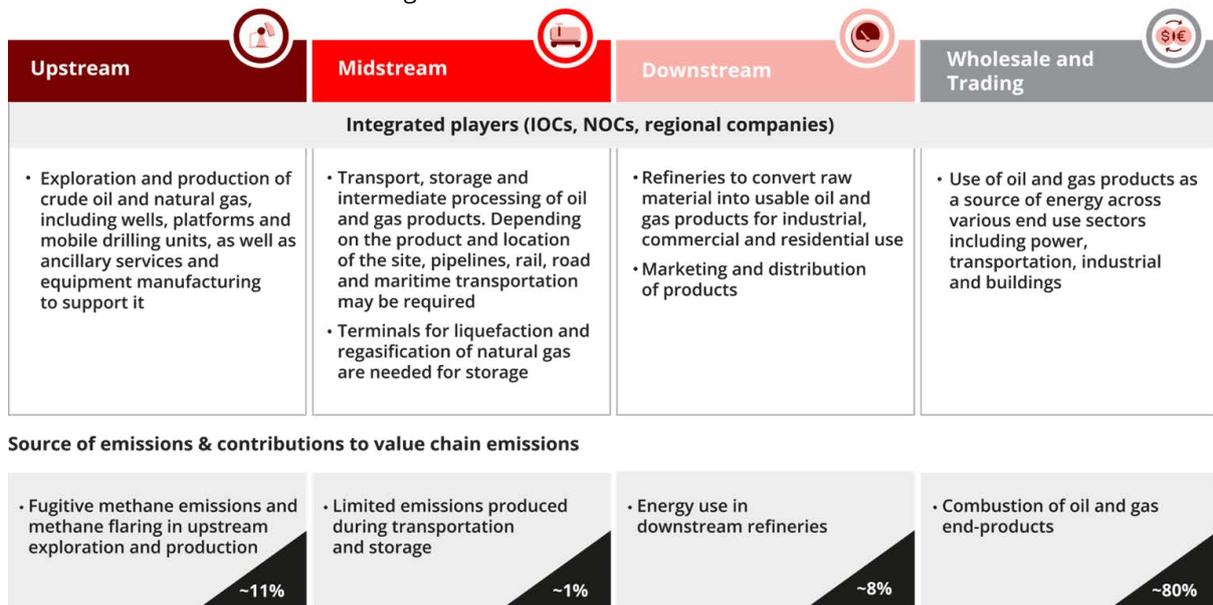
¹⁰² Global Methane Pledge (2023). Global Methane Pledge.

global oil production¹⁰³. Under an IEA NZE scenario, emissions can be reduced by over 75% in the Oil and Gas sector by implementing well-established measures such as leak detection and repair programmes, as well as upgrading leaky equipment¹⁰⁴. Several national oil companies in the ASEAN region have also signed up to the Oil & Gas Methane Partnership 2.0 (OGMP 2.0)¹⁰⁵ to prioritise methane emissions reporting and mitigation actions in the sector.

Our approach in target-setting focuses on areas in the value chain that have the greatest influence to shape the energy transition. As a result, more attention has been placed on upstream exploration and production, to gradually reduce the supply of oil and gas produced.

For the purposes of our baselining and target setting, we have focused on oil and gas integrated companies as well as pure-play upstream exploration and production companies, excluding companies focused solely on ancillary services. For integrated companies, we have included all activities across the end-to-end oil and gas value chain, as these companies are integral in setting the strategic direction to pivot away from oil and gas and have the necessary resources and influence to support the energy transition into cleaner fuels. Although we have scoped in pure-play upstream exploration and production companies, given their criticality in limiting oil and gas production in the long-run, we have excluded other pure-play companies (such as upstream ancillary services & manufacturers, FPSO/FLNG, midstream, downstream, wholesale & trading), as they have limited influence on the production or end-use of oil and gas.

Figure 17 Oil and Gas Sector Value Chain



Design Decision D: Selecting a reference scenario

We have taken the IEA NZE roadmap (2023 update) as the core basis for our Net Zero ambitions in the Oil and Gas sector to ensure we are aligned to a 1.5°C warming trajectory. However, the IEA NZE is currently a global scenario, and does not cater for the regional circumstances we face in ASEAN, where our oil and gas client portfolio and their assets are predominantly situated, and where the energy transition is expected to take longer compared to developed markets due to well-acknowledged challenges of achieving a just transition compatible with inclusive development.

103 Eco-Business (2024). The technologies are there: How oil and gas companies must go beyond pledges to abate methane and cut emissions.

104 IEA (2023). Net Zero Roadmap: A Global Pathway to Keep the 1.5°C Goal in Reach (2023 Update).

105 OGM Partnership (2024). The Oil & Gas Methane Partnership 2.0.

As such, we have enhanced the IEA NZE global scenario with insights from the IEA Sustainable Development Scenario (SDS) which reflects the relative ambitions across different regions, to calibrate a Net Zero scenario that is appropriate for ASEAN. As a bank grounded in the realities of ASEAN, using a regional pathway helps to enable a just and equitable path to Net Zero, while safeguarding energy security and access to affordable energy along the way. This science-based methodology and its principles have found wide cross-sector acceptance with policy makers, industry and financial institutions alike.

Design Decision E: Establishing our baseline

As of 2022, our baseline FELI stood at 694 tonnes CO₂e/MYR MM, calculated as the aggregate of our absolute in-scope financed emissions, divided by our total financing in the Oil and Gas sector within the same scope.

In line with PCAF guidance and consistent with our baselining approach for our published sectoral targets, we have prioritised the use of entity-specific data where available, before falling back on parent-level information and proxies. Most of our oil and gas clients only report Scope 1, Scope 2 and Scope 3 (Upstream) emissions, and have not included Scope 3 (Downstream) emissions from the combustion of oil and gas. In such cases, we applied an industry-wide scaling factor across value chain segments based on available data in S&P to determine a proxy for their Scope 3 emissions from the combustion of oil and gas. In cases where we provide general corporate financing to clients in this sector, we have calculated our financed emissions based on the total emissions at the company level, and the proportion of our financing to the company EVIC.

Our Net Zero approach in the Oil and Gas Sector

Based on the pace of decarbonisation specified by the IEA NZE regional scenario for ASEAN, a 16% reduction in CIMB's FELI is required by 2030. This directly translates into a 2030 target of 583 tonnes CO₂e/MYR MM.

Our restrictions on financing of upstream extraction and production activities

In addition to reducing our Financed Emissions Lending Intensity, we have put in place a new commitment from 1 January 2025 to no longer provide new dedicated financing for new oil field projects approved for development by national governments after 31 December 2021.

According to the IEA NZE pathway, no new oil and gas development projects are needed globally beyond projects already committed as of 2021. In this scenario, decline in oil and gas demand is sufficiently steep such that existing oil and gas assets are adequate to meet demand; hence, there is no need to put new oil and gas fields into production. In its 2023 update to the NZE, the IEA has included a caveat into its statement that no new 'long lead time' exploration of oil and gas is needed to be approved for development. Generally, 'long lead time' is defined as on average 20 years to move from a new exploration license to the start of production. In the context of the Ukraine war and immediate shortfalls in fossil fuel production from Russia, there are times where shorter lead time exploration and production of oil and gas is required to ensure energy security, for example through extending production from existing fields.

Given our footprint in the ASEAN region, we recognise the critical role of, and the need for natural gas as a transition fuel to reduce the reliance of ASEAN's power sector on coal. Hence, while we are committed to restricting financing for new oil field projects, we will monitor climate science, technological improvements, the regulatory environment and developments in ASEAN's power sector regarding new upstream gas activities, and will evolve our position in a timely manner.

Our approach ensures we are able to continue extending much needed capital to the sector in support of diversification into green and low-carbon technologies and reduction in operational

emissions, while staying the course on stewardship of the sector towards declining production of oil and gas products necessary to deliver Net Zero. It also shields our business against potential credit losses from transition risks in the sector, which arises as demand for oil and gas products falls and carbon taxes are increasingly levied. We expect a gradual reduction in production activity, starting with the most cost-intensive extraction sites and operating assets, and will embed these considerations in our financing decisions.

Our strategy to deliver our target of 16% reduction in FELI by 2030, from our 2022 baseline includes the following levers:

- Finance the diversification of our oil and gas clients' businesses as they respond to the clean energy transition, including research and development, decarbonisation and growth of renewable and low-carbon fuel and infrastructure, such as:
 - Modern forms of bioenergy (i.e. biofuels¹⁰⁶), primarily to substitute for fossil fuel use in transportation, industry and in clean cooking, heating and power generation.
 - Green hydrogen and hydrogen-based fuels such as ammonia, for their ability to decarbonise hard-to-abate end-uses such as in long-distance transportation and heavy industry.
 - CCUS¹⁰⁷ to facilitate the use of abated fossil fuels in power and industrial plants, as well as blue hydrogen production from natural gas. Blue hydrogen is an important enabler and interim fuel in the hydrogen revolution, allowing for development of new end-uses of hydrogen and for scaling up existing uses of hydrogen as green hydrogen achieves commercial viability.
 - EV infrastructure, including EV charging points, which have been a focus area of expansion for oil and gas players. While there is growing interest in EV ownership among consumers in the ASEAN region, the lack of charging infrastructure remains a considerable barrier to adoption. It is estimated that the region will require more than USD 400 billion of investment in EV infrastructure through to 2050 to reach Net Zero¹⁰⁸.
- Actively support our oil and gas clients to adopt measures to reduce operational emissions, which accounts for 5-20% of total emissions in the oil and gas sector. With proven and cost-effective measures such as tackling methane emissions, eliminating non-emergency flaring and electrification of production facilities with low-emissions electricity, the IEA NZE's goal of 50% reduction of operational emissions intensity globally for the oil and gas sector by 2030 is within reach¹⁰⁹.
- Facilitate our clients in developing, accelerating and fulfilling their Net Zero strategies in a manner that supports a just transition compatible with inclusive development. Our oil and gas clients remain the key driving force that will support the energy transition towards greener alternatives. We will partner with our clients to spur their emissions reductions and transition efforts, and direct an increasing proportion of financing to clients who share our Net Zero ambitions.
 - We will actively seek to partner with clients who have Net Zero commitments, and support them in meeting their targets.

106 Bioenergy use falls into two main categories: "Traditional" and "Modern". Traditional use refers to the combustion of biomass in such forms as wood, animal waste and traditional charcoal. Modern bioenergy technologies include liquid biofuels produced from bagasse and other plants; biogas produced through anaerobic digestion of residues; wood pellet heating systems; and other technologies.

107 Our support for CCS does not include uses for Enhanced Oil Recovery (EOR). Our overall oil and gas targets supports the long-term reduction in oil and gas production, which is in conflict with the objectives of EOR

108 IRENA (2022) IRENA Renewable Energy Outlook ASEAN 2022

109 IEA (2023) World Energy Outlook 2023: Emissions from Oil and Gas Operations in Net Zero Transitions

- Where our clients have yet to establish robust Net Zero targets and credible transition plans, we will work to support them in developing and strengthening existing commitments to decarbonise, and finance their endeavours to reduce operating emissions and to transition their businesses.
- We will strive to work with our clients to ensure that decarbonisation strategies are done in a pace and manner that is supportive of a just transition for the region, ensuring the issues of energy security and affordability are not exacerbated in the pursuit of environmental goals.
- Cease to provide new dedicated financing for new oil field projects approved for development after 31 December 2021. The pathway to wean ASEAN off oil as a source of energy (e.g. by electrifying transportation) is clear and does not require new oil fields. While we are cognisant of the important role of natural gas as a transition fuel, we will monitor climate science, technological improvements, the regulatory environment and developments in ASEAN's power sector to determine the appropriate time to further tighten our policies on new upstream gas activities.

Future developments and dependencies

The decarbonisation of our energy system hinges on the successful transformation of demand sectors towards renewables and low-carbon alternatives. In particular, the transportation, heavy industry and power generation sectors will have to be fundamentally re-engineered towards existing and new low-carbon fuels and technologies. Therefore, the realisation of our target is contingent on the shift in demand of end-use sectors towards cleaner fuels, continued technology development to support that shift, and a supportive regulatory environment – including implementation of carbon taxes and carbon pricing, incentivisation of renewables and gradual rationalisation of subsidies for oil and gas.

This systemic transformation will need to be carefully paced, taking into account energy security and affordability considerations that are essential to economic development and societal wellbeing, particularly in emerging markets. While the energy transition is a positive catalyst in these developments, creating more secure and ultimately cheaper sources of energy compared to traditional fossil fuels, we recognise that this will take time, as countries with an overall energy shortage cannot easily switch off existing cheap and reliable sources of energy.

Our targets are built around a vision of the path to Net Zero that embeds this need for a just transition compatible with inclusive development. To achieve this ambition, we remain committed to partnering and engaging with our key clients to support them in the strategic pivot of their business away from fossil fuels towards low carbon alternatives, while capturing new opportunities arising from the energy transition.

“ Setting a decarbonisation target for the oil and gas sector is undeniably challenging, considering its economic significance in the Southeast Asian region. However, these targets are imperative due to the detrimental impact of oil and gas on the climate and society.

CIMB's endeavours to strike a balance amidst these complexities is commendable — a necessary step in taking climate action. ”

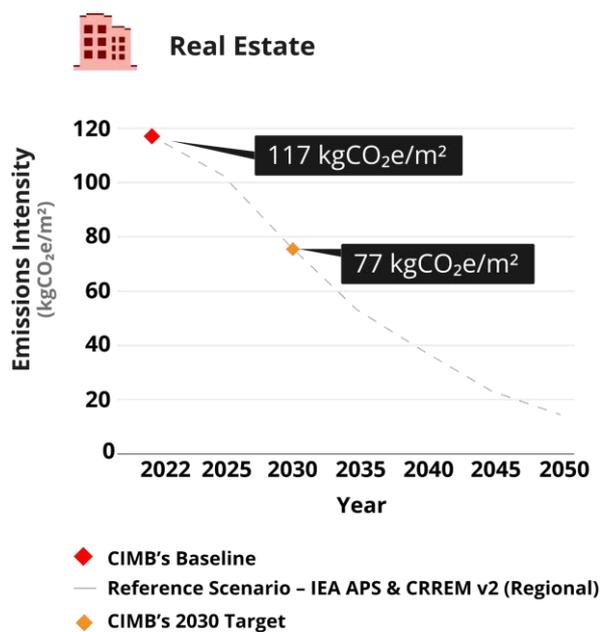
Christina Ng
Managing Director, Energy Shift Institute

9 Real Estate Sector

9.1 Summary of Our Targets

Sector Highlights

- Population and economic growth, coupled with increasing urbanisation, are expected to drive demand for more buildings, with an expected global gross floor area increase of 75% between 2020-2050. In ASEAN, building energy consumption is expected to grow faster than the global average, increasing by 60% by 2030 and 120% by 2040 relative to 2020 levels.
- The Real Estate sector is a primary contributor to carbon emissions, with energy and electricity use during the operating lifespan of buildings accounting for ~28% of global carbon emissions. Buildings also contribute an additional 11% to global emissions during the carbon-intensive manufacturing processes of building materials such as cement and steel, as well as the energy used in construction and demolition, collectively known as the embodied emissions of buildings.
- We are focusing our decarbonisation efforts on reducing operational emissions from buildings, given the emissions materiality and the availability of robust Net Zero decarbonisation pathways for the operating phase of buildings. Additionally, our target is focused on our commercial real estate portfolio, including offices, hotels, retail, mixed-use and industrial buildings.
- While achieving CIMB's Real Estate sector target will depend heavily on decarbonisation of the grid-power supply, we recognise that our Real Estate clients have limited ability to influence the decarbonisation trajectory of the Power grid, beyond efforts such as signalling intent for a cleaner grid by purchasing Renewable Energy Certificates (RECs). Hence, we have constructed a reference pathway based on the CRREM Net Zero emissions scenario in which the power grid decarbonises in line with the IEA Announced Pledges Scenario (APS) pathway, instead of the IEA NZE pathway, while adhering to building energy efficiency improvements in line with a Net Zero pathway. Our reference pathway therefore takes a Net Zero view on required energy efficiency improvements which are within the control of our Real Estate clients, but a more realistic view of the energy transition, based on national commitments.
- We plan to achieve our target by supporting our real estate developer, owner-operator and Real Estate Investment Trust (REIT) clients in the development, retrofit, operations and maintenance of lower emission buildings, including adopting green technologies and solutions to reduce energy demand and wastage, increase energy efficiency and secure access to cleaner energy. Concurrently, we will encourage and support our clients in their efforts to develop, implement and accelerate their decarbonisation plans.
- Our ability to achieve our target hinges crucially on the decarbonisation of the power sector. We estimate decarbonisation of the power grid in line with IEA APS in the region to deliver an estimated 76% of the emissions intensity reduction required for us to meet our decarbonisation targets for the Real Estate sector. To this end, we will support the decarbonisation of the overall ASEAN Power sector through our published target and strategy towards Net Zero for our Power portfolio.



Note: Achieving our target in the Real Estate sector hinges on the decarbonisation of on-grid Power in line with the IEA APS regional pathway

Metric

- Physical emissions intensity, i.e. kg of CO₂ equivalent per m² of gross floor area

Scope

- Scope 1 & 2 operational emissions from buildings, which may also include Scope 3 tenant emissions for real estate developers
- Our commercial real estate portfolio, including collateralised financing and general corporate financing, excluding developers that exclusively develop residential properties as well as residential mortgages

Decarbonisation Levers

- Financing the development, retrofit and maintenance of more energy efficient buildings, including actively directing funding towards buildings with higher energy efficiency ratings and green building certification
- Support energy transition in buildings including electrification, installation of onsite renewable energy capacity, and procurement of renewable energy via PPAs
- Enabling and supporting our clients to develop and achieve Net Zero plans

9.2 Industry Overview

Over half of the world's population lives in urban areas today, with that proportion expected to increase to nearly 7 in 10 people by 2050¹¹⁰. This shift, coupled with overall population growth, is likely to result in the global urban population more than doubling in the next 25 years¹¹¹. The speed and scale of urbanisation is even more striking in ASEAN as the emerging economies and agrarian societies of the region transform into more diversified and industrialised economies. Between 2015 and 2025, an additional 70 million people are expected to live in the regions' urban areas¹¹².

The world is already seeing a significant growth in demand for building space, with rapid growth expected to continue beyond 2050. Global gross floor area is expected to increase by 75% in 2050 to meet this demand, most significantly in emerging markets¹¹³. In addition, the resource footprint of buildings is set to grow even faster, driven by the impact of rising household incomes on consumption patterns and energy demand. Direct emissions from the buildings sector have increased by 0.5% per year since 2010, driven by an expansion demand for energy services,

110 United Nations (2024). SDG 11 Sustainable Cities and Communities.

111 The World Bank (2023). Urban Development Overview.

112 The ASEAN Secretariat (2018). ASEAN Sustainable Urbanisation Strategy.

113 IEA (2022). Global Buildings Sector CO₂ emissions and Floor Area in the Net Zero Scenario.

including heating and hot water, space cooling and lighting¹¹⁴. A prime example for the ASEAN region is in space cooling, where residential air conditioner ownership is expected to rise from less than 20% today to more than 60% in 2040¹¹⁵, with the effect of quadrupling the electricity consumption associated with cooling.

Buildings are a major contributor to global emissions, accounting for an estimated 39% of global emissions – of which 28% comes from the use of energy in heating, cooling, lighting, equipment and electrical appliances during the operating lifetime of the building¹¹⁶. In addition to operational emissions, buildings indirectly contribute an additional 11% to global emissions¹¹⁷ – these are known as the embodied emissions of buildings, arising mainly from the highly carbon intensive manufacturing processes of building materials such as cement and steel, as well as energy and electricity used in construction and demolition, of buildings.

Based on the IEA NZE scenario, global operational emissions from buildings are expected to decline to nearly zero by 2050¹¹⁸. This ambitious goal is set despite a backdrop of strong demand growth for buildings, and their expanding energy footprint over the same period, creating an urgent imperative to decarbonise the operations of our existing building stock and to radically transform the way we design, build, operate and maintain new buildings. Getting there requires the activation of three key levers:



Lever 1: More energy efficient buildings

Buildings will need to become highly efficient, allowing the sector to decouple energy consumption from growth in floor area. Building orientation and design, improved envelope structure, choice of building materials, and other passive design elements such as green roofs and green walls can help increase insulation and ventilation appropriately, reducing the reliance on energy-intensive heating, ventilation and air-conditioning (HVAC) systems. This is especially critical in ASEAN where it is estimated that 40% of the population still lacks access to comfort cooling (e.g. air conditioners, fans), and consequently remains at risk of heat stress*. Opting for highly energy efficient systems, equipment and appliances (already widely available today), has the potential to lower operating cost while reducing energy consumption. Furthermore, installing smart building technologies that optimise electricity consumption based on occupant behaviour patterns can also drive further energy efficiency gains.

114 IEA (2022). World Energy Outlook 2022.

115 Clean Cooling Collaborative (2022) Unlocking the Power of Sustainable Cooling: Energy-Efficient Solutions in Southeast Asia

116 World Green Building Council (2019) Bringing embodied carbon upfront: Coordinated action for the building and construction sector to tackle embodied carbon

117 World Green Building Council (2019) Bringing embodied carbon upfront: Coordinated action for the building and construction sector to tackle embodied carbon

118 IEA (2023) Net Zero Roadmap: A Global Pathway to Keep the 1.5°C Goal in Reach (2023 Update)



Lever 2: Shifting energy and electricity mix towards renewables

Buildings need to shift their energy and electricity mix to low and zero-carbon sources. As the share of electricity in the energy mix of buildings increases sharply over the next two decades, achieving decarbonisation requires national grids to progressively shift from fossil fuel power generation to renewables. This highlights a key dependency of real estate decarbonisation on national commitments and energy policies.

i Renewable Energy Certificates

Renewable Energy Certificates (RECs) are issued when one megawatt-hour (MWh) of electricity was generated from a renewable source and fed into the grid, enabling the owner of the REC to claim the benefits of reduced carbon footprint of that clean energy. The purpose of RECs is to provide incentives to support renewable energy production. It has been increasingly used as a strategy for many corporates (including those in the Real Estate sector) to justify a reduction in their carbon emissions from electricity used, given their support through RECs to generate renewable energy from other sources. Critics have often argued that the purchase of RECs have led to companies reporting zero emissions from electricity used without altering the underlying source of electricity. In the Real Estate sector, corporates should ensure that the use of rooftop solar PV or procurement of offsite renewable power are the core of their renewable energy strategy, with RECs only used as an interim solution until additional sources are procured.



Lever 3: Electrification of energy use

As electricity generation becomes progressively cleaner, electrification of areas previously dominated by fossil fuels is a crucial economy-wide tool for reducing emissions. In ASEAN, the share of electricity use in buildings was ~45% in 2020, and is expected to increase to ~67% by 2040 even under current national decarbonisation policies*, driven primarily from policy actions to encourage a shift away from the use of traditional biomass for cooking and water heating. The sector must capitalise on strong policy support and build a momentum towards electrification and away from fossil fuel use.

*IEA (2022) Roadmap for Energy Efficient Buildings and Construction in ASEAN

Beyond energy savings and emissions reduction, these levers have the potential to deliver the added benefits of lowering operating costs, decreasing exposure to volatile energy prices and shielding against price increases from carbon taxes or the inevitable roll-back of fossil fuel subsidies. Simultaneously, there is growing demand for certified green buildings, driven by an increasing number of corporate tenants seeking solutions to meet their own Net Zero commitments. Market studies show an existing and growing shortfall of certified green buildings. Singapore is expected to be 56% undersupplied with green buildings by 2027¹¹⁹, while Kuala Lumpur currently faces a shortfall in green space of 5-10% of the total existing stock¹²⁰. In addition, 70% of Asia Pacific corporations are willing to pay a rental premium to lease sustainability-certified

119 JLL (2023). Asia Pacific Cities Facing an Unprecedented Shortage of Sustainable Office Buildings.

120 JLL (2023). Growing Demand for Greater Kuala Lumpur's Green Offices.

buildings in the future¹²¹. This will continue to create momentum for green retrofits of existing buildings and the development of new green buildings.

Recent regulations, policies and incentives in ASEAN have been focused on improving energy efficiency of buildings. For example, many building regulators and standard setters across the region have put in place standards to encourage greater energy efficiency by increasing the scope and stringency of minimum energy performance standards (MEPS) of appliances, as well as through energy codes at the building level. Ongoing efforts towards regional harmonisation of MEPS is expected to further accelerate energy efficiency improvements. Increasingly stringent regulations, such as Malaysia's Energy Efficiency and Conservation Act, which requires buildings above 8,000 square metres to comply with energy efficiency standards¹²², will continue to help drive further improvements.

The acceleration in adoption of green building certification standards, including national standards complemented by subsidy schemes and other incentive mechanisms, is a crucial driving force to decarbonise the sector. Singapore Building Construction Authority's (BCA's) Green Mark rating system, a voluntary certification scheme that evaluates overall environmental performance of buildings, has certified over 55% of Singapore's total building stock (by gross floor area) as of 2022¹²³. It continues to be an important enabler of Singapore's Green Building Masterplan which targets 80% certified green buildings by 2030. Green Mark and other local and international standards such as Malaysia's Green Building Index (GBI) and Leadership in Energy and Environmental Design (LEED), provide transparency to financiers, investors and tenants who are increasingly concerned with reducing emissions, facilitating the growth of the market for greener buildings.

Despite the positive traction on reducing operational emissions of buildings, the journey towards Net Zero for the built environment ecosystem has its own challenges. Tackling the issue of embodied emissions from buildings involves getting nascent technologies, for example in relation to building materials such as steel and cement, to commercial viability, and sufficient scale. Substantial investments are required to be channelled into enabling technologies such as CCUS for both cement and steel production, as well as green hydrogen for steel production. However, stronger regulations and policy support are required to help stimulate and scale up demand for zero and low-carbon alternatives from major users of steel and cement, such as real estate companies.

Just transition considerations are critical in the societal shift towards greener buildings – additional costs embedded throughout the built environment ecosystem must be balanced against access to affordable housing, especially in the emerging economies of ASEAN. Human rights issues are also present in the construction phase, including modern slavery, debt bondage and poor living conditions of workers, as well as displacement of local communities caused by large-scale construction projects. We are cognisant of these competing priorities and will ensure social considerations are not neglected in our pursuit towards a greener built environment. Detailed information on how we manage Human Rights at CIMB are available [here](#).

121 JLL (2021). 7 in 10 companies in APAC willing to pay higher rent for green buildings.

122 Ministry of Economy, Malaysia (2023). National Energy Transition Roadmap.

123 Building and Construction Authority of Singapore (2023) Green Building Masterplans

Figure 18 Energy efficiency policies from selected Southeast Asian markets

Country	Policies
<p>Malaysia</p>	<p>Low Carbon Nation Aspiration 2040</p> <ul style="list-style-type: none"> • 10% energy efficiency savings for residential buildings • 11% energy efficiency savings for industrial and commercial buildings • Key Initiatives <ul style="list-style-type: none"> - Enforcement of Energy Efficiency and Conservation Act (EECA), energy audits and Minimum Energy Performance Standards (MEPS) - Enhance energy efficiency with digital technology adoption
<p>Singapore</p>	<p>Green Building Masterplan 80-80-80 in 2030</p> <ul style="list-style-type: none"> • Green 80% of buildings by GFA • 80% of new developments to be Super Low Energy buildings • Achieve 80% improvement in energy efficiency for best-in-class green buildings • Key Initiatives <ul style="list-style-type: none"> - Benchmarking of buildings energy performance - Raised mandatory environmental sustainability standards and updated Green Mark energy performance standards
<p>Indonesia</p>	<p>Jakarta 30:30 Commitment</p> <ul style="list-style-type: none"> • Reduce water and energy consumption, as well as GHG emissions, by 30% by 2030 • Key Initiatives <ul style="list-style-type: none"> - Implement Green Zone project, ensuring that 100% of new buildings and 60% of existing buildings meet Jakarta Regulation on Green Buildings by 2030 - Established a multi-stakeholder Green Building Forum to mainstream the concept of green building <p>Just Energy Transition Partnership</p> <ul style="list-style-type: none"> • Funding value of USD 20 BN to accelerate decarbonisation including widespread deployment of energy efficiency and electrification tools, technologies and reforms
<p>Thailand</p>	<p>Energy Efficiency Plan 2022-2037</p> <ul style="list-style-type: none"> • 5%, 10% and 35% energy efficiency savings for residential, commercial and industrial buildings respectively • Key Initiatives <ul style="list-style-type: none"> - Mandatory compliance with building energy codes for residential, commercial and industrial buildings - Piloting Net Zero Energy Buildings - Promote energy-saving innovations e.g. smart home systems

A significant scale up of investment in the real estate sector is needed to enable meaningful progress towards Net Zero by 2050. As a responsible bank, we are committed to support government policies on improving energy efficiency and to do our part in accelerating the flow of capital towards lower emission buildings. Our target and approach towards Net Zero, elaborated below, outline how we intend to work with our real estate clients to achieve this.

“CIMB’s Net Zero targets set are a significant step forward. Achieving these targets will require structural changes and the involvement of various stakeholders, including other banks and government machineries. Collective accountability and collaboration are vital for success, as this is a challenge where everyone either wins or loses together.”

Shane Guha Thakurta

Chief Sustainability & Investor Relations Officer, IJM Corporation Berhad

9.3 CIMB’s 2030 Targets in the Real Estate Sector

Design Decision A: Target metric selection

As direct emissions from buildings must decline while continuing to meet rising demand for floor space and energy services, we have chosen to use a physical emissions intensity metric which measures the amount of CO₂e released per square metre of gross floor area. Our target metric will drive us to work with our real estate clients to pursue energy efficiency and emissions reduction objectives, with emissions intensity considerations integrated into design, development, retrofit, operations and maintenance decisions.

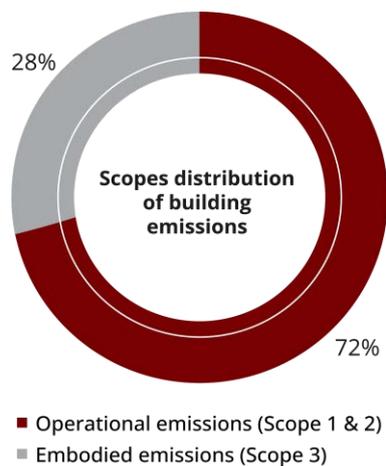
Design Decision B & C: Value chain and emissions scope coverage

Over its lifetime, a building’s emissions consist primarily of:

- **Operational emissions** arising from the direct and indirect combustion of fossil fuels for uses such as space heating and cooling, lighting and powering equipment and appliances (especially from large devices plugged into electricity mains such as refrigerators and air conditioners) during the operating lifetime of the building. Scope 1 emissions include direct combustion of gas for heating and cooking and leakage of refrigerants, while Scope 2 emissions arise from the use of electricity. Operational emissions account for an estimated ~72% of building emissions¹²⁴. For many of our Real Estate clients, they rent out buildings that they own. Operational emissions from the energy consumption from their tenants (i.e. tenant emissions) are Scope 3 emissions for our Real Estate clients. In our calculation of operational emissions of our Real Estate clients, we have also included tenant emissions to ensure a more accurate and comprehensive measurement of the operational emissions of buildings that they own.
- **Embodied emissions** arising from the manufacturing process of building materials, including the emissions from raw material extraction, processing and transportation, as well as the energy and electricity used in construction and demolition. Embodied emissions collectively account for an estimated 28% of building emissions¹²⁴.

124 World Green Building Council (2019) Bringing embodied carbon upfront: Coordinated action for the building and construction sector to tackle embodied carbon

Figure 19 Real Estate Emissions Scope



Partnership for Carbon Accounting Financials (PCAF) guidance on emissions scope coverage for Real Estate

- For property that is already built, financial institutions shall cover the absolute Scope 1 and 2 emissions related to the energy used in financed buildings during their operation
- Reporting financed emissions from construction or renovation of buildings is optional

We have chosen to focus our targets in the Real Estate sector on operational emissions due to their significance to the sector’s total emissions, the availability of established emissions pathways to Net Zero, and levers to deliver Net Zero operational emissions, as well as the greater availability of energy use and emissions data, compared to the design, planning, construction and demolition phases. This is in line with PCAF guidance and industry best practices.

Real Estate embodied emissions and our Cement sector target

Embodied emissions make up approximately 28% of Real Estate sector emissions, most significantly from the carbon-intensive manufacturing process of common building materials such as cement and steel. Technologies required for the manufacture of low-carbon alternatives are still in early stages of maturity and have not yet reached widespread commercial viability or scalability. This has contributed to the lack of robust data and standardised methodologies, and therefore, we have not included embodied emissions in our Real Estate sector target. However, we remain active in supporting the decarbonisation of these crucial materials, most prominently through our existing target towards Net Zero in the Cement sector, published in 2022.

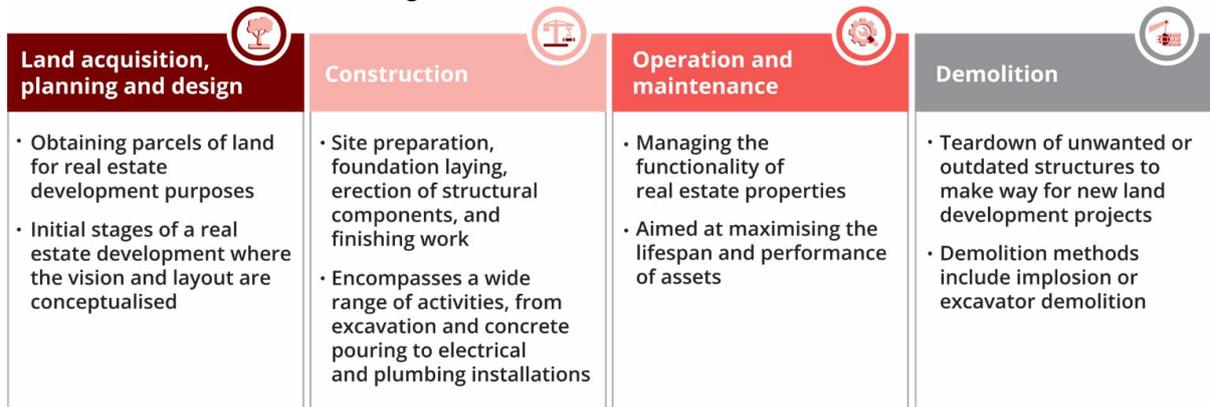
Cement manufacturing is responsible for 8% of global carbon emissions¹²⁵, and is therefore one of the largest contributors to embodied carbon in the built environment. To achieve our decarbonisation ambitions in the Cement sector, we aim to support our cement manufacturing clients in their transition towards low-carbon production, while working closely with our clients in the Real Estate sector, especially developers, to facilitate demand for low-carbon and sustainable alternatives (refer to Section 5 for our Cement target).

We have chosen not to set a sector target for our Steel portfolio as part of our 2030 target-setting exercise, as our exposure to this sector is limited – amounting to less than 1% of our total financing and investment exposures. In addition, our clients tend to operate in the downstream segment of the value chain (e.g. secondary steel making, steel trading) as opposed to steel production (which makes up 95% of emissions in the sector¹²⁶), and do not typically have much influence on decarbonisation efforts in the sector.

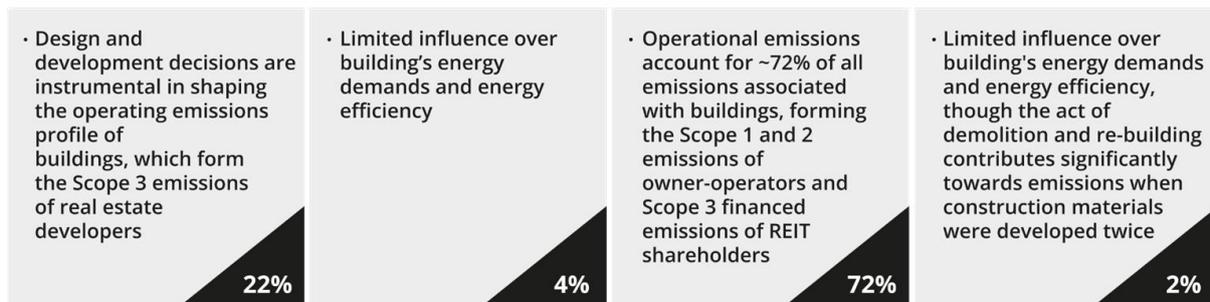
125 Chatham House Report (2018). Making Concrete Change: Innovation in Low-carbon Cement and Concrete.

126 World Economic Forum (2023). Steel Industry Net Zero Tracker.

Figure 20 Real Estate Sector Value Chain



Sources of emissions & contributions to value chain emissions



Due to the long lifespan of structures, design decisions on operational aspects such as heating and cooling systems, as well as electrical equipment and appliances – which are typically made at the development stage for new buildings, or during the retrofit of existing buildings – have a long-lasting impact on the operating emissions profile. These design decision levers typically sit within the sphere of influence of property developers, operators and owner-operators, and REITs. We have therefore focused our target in the Real Estate sector on these client archetypes, supporting them in driving energy efficiency gains and reducing the emissions of the buildings they develop, own and/or operate.

We have not included construction companies in our target due to their relatively low contribution to the overall building carbon footprint. Construction players typically have low influence over the key decisions that contribute to the operating carbon footprint of the building, as construction activities are often contracted and sub-contracted to multiple smaller construction players who are selected based on ability to deliver to the real estate developers' requirements and pricing. However, we will continue to work with construction companies in our portfolio to support decarbonisation of the levers within their influence, such as through fuel and resource efficient construction methods and the electrification of heavy-duty vehicles. We also contribute to sustainable development in the industry, for example, by being an active member of the Master Builder's Association of Malaysia's Environment, Green Technology and Sustainability Committee.

We have chosen to focus our target on the commercial real estate sub-sector, which contributes around 57% of CIMB's financed emissions in the Real Estate sector. Specifically, our target covers clients who develop, own or operate offices, hotels, retail, mixed-use and industrial buildings, which make up around 75% of our total exposure in our commercial real estate portfolio. Regulatory support and demand for decarbonisation in Real Estate is also more established in commercial sub-sectors relative to residential buildings, and hence where we, and our clients, have more levers at our disposal to effect change.

Our target does not include our mortgage portfolio, nor developers that exclusively develop residential properties. This is primarily because the energy use of residential buildings is largely influenced by occupant behaviour, creating a challenge around data availability and coverage,

consistency and the accuracy of standardised proxy data. Abiding by the notion of a just transition compatible with inclusive development also means ensuring that the journey towards sustainability does not diminish the right to adequate and affordable housing. Therefore, we believe that our mortgage portfolio, and residential properties in general, warrant the development of an approach distinct from commercial real estate.

Comparing energy intensity across different building types

Our clients develop, own and operate a wide variety of buildings, including offices, hotels, retail, mixed-use and industrial properties in ASEAN (although some of our clients have properties in other parts the world). Both the property type and geographical locations are key factors that determine different energy requirements, thereby affecting the emissions intensity of buildings:

Residential buildings tend to be lower in emissions intensity than commercial buildings (e.g. office, hotels) and industrial buildings (especially cold storage warehouse), which generally use more energy to support lighting, space cooling, etc. critical for business operations. This is illustrated for Malaysia below:

Building Type	Energy Use Intensity in Malaysia in 2022 (kWh/m ²) ¹²⁷
Residential	55
Industrial (Factory)	89
Office	171
Hotel	212
Retail	219
Industrial (Cold storage)	222

Design Decision D: Selecting a reference scenario

To determine the target trajectory for our real estate portfolio, we referenced the Carbon Risk Real Estate Monitor (CRREM) 1.5°C pathways on GHG emissions intensity. Unlike other whole-of-economy Integrated Assessment Models such as the IEA NZE and NGFS pathways, CRREM pathways are specifically developed for the Real Estate sector. They take into account the distinct characteristics of local markets, both in terms of baseline and required trajectory towards Net Zero. This includes differences in national and local grid-power generation mix, ambition level of national commitments and energy policies. CRREM pathways also distinguish by building type, assigning different energy usage profiles to different building types. CRREM released version 1 of its real estate-specific pathways in 2020, and updated them to version 2 in 2022 with significantly steeper decarbonisation trajectories, which we have used in setting our 2030 Target.

Using the CRREM pathways, we have been able to determine the required decarbonisation trajectories for our diverse client portfolio in our various geographies with greater confidence. This granularity enables us to continue supporting our real estate clients to finance greener buildings across different markets and property types, including high-growth sub-sectors with more energy-intensive profiles, such as shopping centres, and to facilitate decarbonisation meaningfully across a breadth of locations and types.

At the portfolio level, we have set our 2030 Target by reflecting a weighted average of the respective reference pathways for the building types and countries that comprise our portfolio. This ensures our 2030 Target reflects our portfolio composition. Where no specific country-

¹²⁷ CRREM (2022). CRREM Risk Assessment Tool.

pathway is available, we use the reference pathway for other countries in the region as proxies. In the event that our portfolio mix of building types changes significantly in the coming years, we will re-weight the aggregated reference pathway for our portfolio, which may lead us to restate our 2030 Target to ensure it remains appropriate.

Our overall approach towards Net Zero is to focus on the levers within our clients' direct sphere of influence to support the decarbonisation of the sector. However, as emissions stemming from electricity consumption in buildings make up the majority of emissions associated with the operation of buildings, decarbonisation of the Real Estate sector hinges on the pace of grid-power decarbonisation. Although developers and owner-operators can also pursue on-site generation of renewable energy, we recognise that in many instances, potential is limited, due to constraints such as available roof space. Therefore, we have isolated the contributions of on-grid power sector decarbonisation in the CRREM 1.5°C pathway, to estimate necessary energy efficiency improvements which are within the direct control of Real Estate players, under a Net Zero pathway.

While we remain committed towards supporting decarbonisation of the Power sector – as seen through our Power sector targets (Section 7: Power Sector) – we recognise that our Real Estate clients do not have the ability to materially influence the decarbonisation of the grid. Particularly in ASEAN, power supply is often dominated by a small number of large utility companies which limit the ability of Real Estate players to choose their energy providers and thus their energy mix. Specifically for Malaysia, Indonesia and Thailand, electricity generation is predominantly controlled by state-owned enterprises. As such, we have combined the necessary Net Zero-aligned improvements in building energy efficiency (derived from the CRREM 1.5°C pathway) with the IEA Announced Pledges Scenario (APS) pathway for on-grid power decarbonisation. This results in a 34% reduction by 2030 emissions intensity target for the Real Estate sector. While our efforts to decarbonise the Real Estate sector will focus primarily on engaging developers and owner-operators to deploy energy efficiency and renewable energy improvements, we will also be engaging with Power sector players to ensure an orderly decarbonisation of power grids towards Net Zero, and encouraging them through our Power sector target to strive for more ambitious decarbonisation.

Critical dependence of achieving our targets on the decarbonisation of the Power sector

Across ASEAN, where the vast majority of our real estate clients and collateral are located, the power generation mix is still largely dominated by fossil fuels, highlighting the significance of the unrealised potential to bring about decarbonisation of our built environment through the shift to renewable power generation. Within the markets and property types we operate in, decarbonisation of the on-grid power supply in alignment with national commitments is expected to drive an estimated three quarters of the emissions intensity reduction we require to meet our 2030 emissions intensity target in the Real Estate sector.

Progress made over the last three years has been encouraging, with many ASEAN member states raising ambition levels of their national commitments and energy policies in support of growing renewable power generation. Notwithstanding recent developments, the region requires a critical scale up of investment and supportive regulation for the Power sector to decarbonise by 2040 in line with the IEA NZE, unlocking the ability of other dependent sectors, including Real Estate, to decarbonise by 2050. We published our targets towards Net Zero in the Power sector in 2023, and are committed to playing our part to accelerate the shift towards low-carbon and renewable power generation, in a just transition for the region.

Design Decision E: Establishing our baseline

Our baseline physical emissions intensity of 117 kg CO₂e/m² is a portfolio-weighted average across our clients and the properties we finance. Location and property type drive significant differences in a building's operational emissions profile, and hence we have prioritised the use of asset-level information to construct our baseline for all collateralised financing, enabling us to better recognise the specific characteristics of the properties that we finance. Where we extend general corporate financing to our real estate clients, we have relied on company-level sustainability reports for aggregate energy usage, emissions reporting and gross floor area to determine an average physical emissions intensity at the client level.

Consistent with our approach in other sectors where we have set targets, we have elected to rely on directly reported data where available. However, through our baselining efforts, we note that reporting on energy use and emissions at the property level is not yet common practice. At the Group level, data has been reported for only 37% of our in-scope exposure, and with coverage varying widely across countries: 19% in Malaysia, 0% in Indonesia, 58% in Singapore, 24% in Thailand.

Where available, we rely on green building standards such as Singapore's Green Mark and Malaysia's Green Building Index as important sources of information, to allow us to develop more granular benchmarks for energy usage and emissions intensity across different property types, as well as different tiers of certification. Where building certification standards are not available, we have, on a best effort basis, leveraged government studies to determine national benchmarks, acknowledging that some of the proxy data that we have resorted to using may be imprecise. We will continue to monitor the data environment to improve our baseline estimation, preferably using directly reported data as it becomes more widely available, while refining and updating our proxies appropriately to incorporate any major changes, such as when new national studies are published or if there are significant updates to certification standards.

Overall, we believe that constructing our baseline using a bottom-up approach gives us a more granular and accurate representation of the emissions profile, and more importantly, allows us to engage productively with our clients to drive real emissions reductions in the buildings we finance. However, data coverage remains an issue, as not all markets and property types in our portfolio are covered by robust national standards, and certification remains voluntary. Many green building standards used in the region apply a points-based approach, allowing developers and operators to leverage a combination of various sustainability levers to achieve certification. This structure, and the lack of harmonisation between green building standards, have introduced additional complexity to developing comparable benchmarks across markets. In our baselining approach, we have had to strike a balance between data coverage and precision, extracting as much utility as possible from best available information.

Our decision to set our targets in advance of robust information is driven by the urgency of the climate emergency, the sector's imperative to respond as a significant contributor to global emissions, and the role that we can play in helping to scale up adoption of increasingly available and affordable solutions today. Equipped with our baseline and targets, we will be able to meaningfully ramp up engagement with our real estate clients, working with them to take positive action in the short term, which will have long-lasting impact on the emissions of our built environment for decades to come.

Our Net Zero approach in the Real Estate Sector

Our target is to decarbonise our Real Estate portfolio in line with the trajectory specified by our reference scenario, reducing the physical emissions intensity from a 2022 baseline of 117 to 77 kg CO₂e/m² by 2030, and is equivalent to a 34% reduction in operational emissions intensity.

Achieving our target depends heavily on the decarbonisation of the grid-power supply, as electricity usage accounts for more than half of the sector's operational emissions¹²⁸. However, Real Estate companies have an active role to play by driving energy efficiency gains, pursuing electrification of end-uses, and increasing utilisation of renewable and low-carbon energy.

The pace of new building development presents the Real Estate sector with a transformational opportunity to decarbonise. By opting for increasingly energy efficient and cost-effective hardware and software solutions, and capitalising on the tailwinds of increasing electrification and the rise of distributed renewable power, new buildings are able to attain higher levels of energy efficiency and emissions reductions. Electrification and cluster solutions such as district heating and cooling solutions, can be seamlessly implemented in new buildings by integrating them into the planning and development stages. New buildings also present a great opportunity in better utilising passive elements such as building orientation, envelope design and material selection to reduce energy demand.

However, addressing new developments alone is insufficient for the Real Estate sector to achieve Net Zero. The global target expressed by IEA to retrofit 20% of the existing building stock to a zero-carbon ready level is an ambitious but necessary milestone towards Net Zero by 2050¹²⁹. To achieve this goal, renovation rates globally have to more than double to 2% per annum¹²⁹, prioritising the least energy efficient buildings. Renovations are required to be much more effective in reducing energy demand, oftentimes involving significant changes to the building envelope, while overhauling inefficient technical and mechanical systems.

Therefore, our approach to Net Zero in the Real Estate sector encompasses new building development as well as retrofits and maintenance. We aim to support our developer, owner-operator and investor clients to adopt energy efficiency solutions, increasing electrification and utilisation of renewable and low-carbon energy. This includes the following levers:

- **Financing the development, retrofit and maintenance of more energy efficient buildings:**
 - We will actively direct funding in support of new buildings with higher energy efficiency ratings and green building certifications, as well as retrofit programmes of existing buildings to upgrade them to achieve the same.
 - In addition, we will engage with our Real Estate clients to seek out and support investments to reduce energy usage and improve energy efficiency of their legacy buildings, including but not limited to replacement with more energy efficient HVAC and lighting systems, adoption of smart technologies (e.g. smart meters) to optimise electricity demand based on occupant behaviours and needs. Beyond supporting individual buildings, we will also help our clients to advance the development of sustainable townships and industrial parks, including supporting district level cooling systems.
- **Supporting the energy transition in buildings:** Through our financing, we are able to provide support for onsite renewable energy installations, such as rooftop solar PV and energy storage capacity to offset the building's energy demand from the grid. We recognise the physical constraints of relying on rooftop solar PV as the only source of energy in buildings, and will concurrently support decarbonisation of the power grid through our Power sector targets. We will also provide support for electrification of occupant end-uses, such as space cooling, water heating and cooking, which have traditionally relied on the combustion of fossil fuels.

128 IEA (2022). Energy system: Tracking Buildings.

129 IEA (2022). Technology and innovation pathways for zero-carbon ready buildings by 2030: Renovation of near 205 of existing building stock to zero-carbon-ready by 2030 is ambitious but necessary.

- **Encouraging and enabling our clients to develop and achieve Net Zero plans:** We will actively engage with our clients to improve their emissions reporting capabilities, which are essential to provide clarity on their operating performance and hasten the progress of decarbonisation. In conjunction, we will support them actively to develop robust science-based Net Zero plans, and continue to find opportunities to put our balance sheet to work to enable and accelerate their ability to meet their commitments.

“CIMB’s pragmatic approach to setting climate targets for the real estate sector is commendable. It’s refreshing to see a focus beyond mere sustainability certifications, aiming instead for substantive and impactful changes.”

Sheue Yann Wong

Divisional General Manager, Eco World Development Berhad

Our green financing support for the real estate ecosystem

- **Green financing:** New building developments or retrofitting existing buildings achieving acceptable sustainability standards such as Green Building Index (GBI), GreenRE, Leadership in Energy and Environmental Design (LEED), Building and Construction Authority (BCA) Green Mark, Building Research Establishment Environmental Assessment Method (BREEAM), Global Real Estate Sustainability Benchmark (GRESB) will be eligible for Green Financing in accordance with market acceptable standards set by Asia Pacific Loan Market Association (APLMA).
- **Sustainability-linked financing:** We encourage our clients to actively reduce the operational emissions of buildings they operate through our Sustainability-Linked Financing where interest rate / profit incentives on the underlying financing are provided for energy / emissions reduction targets achieved. Sustainability-Linked Financing has also been made available for our SME clients, via GreenBizReady, and a similar product (Sustainability-linked derivatives) is available for our Treasury and Markets clients.
- **SME GreenBizReady:** Our one-stop sustainability ecosystem programme designed to help our SME clients to accelerate ESG adoption. This includes provision of complimentary training on sustainability-related topics (e.g Impacto’s 12-month Programme), offering access to simple web tools to measure emissions, linking up with sustainability service and certification providers, to develop and achieve their net zero transition plans and financing their sustainability transition.
- **Sustainable supply chain financing:** We empower and support our corporate clients to encourage emissions tracking and reductions across their supply chain, by offering GreenBizReady support and sustainability-linked financing for their suppliers and distributors, supplemented with carbon calculators and financial incentives for meeting pre-agreed decarbonisation targets.

Our green financing support for homeowners

- We actively encourage homeowners to move towards creating homes with lower carbon footprint. This includes financial incentives for measures such as green mortgages, green renovation, solar PV financing, and energy efficient appliances, as well as raising awareness of the benefits of greener homes. We hope our efforts will contribute towards a mindset and behavioural shift amongst consumers towards more energy efficient houses and stimulate demand to help the industry gain critical mass in green residential housing.
- **Green mortgages:** CIMB provides preferential rates on green mortgages in Malaysia, encouraging potential homebuyers to consider green homes that meet sustainability

standards such as Green Building Index (GBI), GreenRE, Leadership in Energy and Environmental Design (LEED), Building and Construction Authority (BCA) Green Mark, and GreenShip Standard. With a long list of eligible residential projects, including some in the more affordable range, and many more projects in the pipeline, we are growing our green mortgages portfolio.

- **Green renovation:** CIMB Singapore has provided preferential rates for renovation that fulfils at least five criteria across passive cooling (e.g. windows with solar film) energy efficiency (e.g. energy efficient LED lighting), water efficiency (e.g. 4-tick Water Efficiency Labeling Scheme (WELS) rate washing machines), health & safety (e.g. use of low-volatile organic compounds (VOC) paints) and sustainable building materials (e.g. use of building materials with Singapore Green Label).
- **Solar PV financing:** With the cost of solar panels continuing to decrease, installing solar PV systems in residential properties is becoming more accessible. CIMB Malaysia offers 0% interest instalment plans for up to 60 months, coupled with CIMB deals partner discounts with 20 solar panel partners. CIMB Niaga has also been promoting green financing through a partnership with SUNTerra, a solar panel provider for both homes and offices.

Future developments and dependencies

This first version of our Real Estate target is focused on reducing the operational emissions of buildings. Aside from a critical dependency on decarbonisation in the Power sector, lowering emissions across the Real Estate value chain, including upfront activities such as materials manufacturing and construction, creates additional dependencies on the greening of additional hard-to-abate sectors such as cement and steel. Holistic decarbonisation of the sector requires nascent technologies to reach commercial viability, to provide low-carbon or green alternatives to common building materials at scale. Concurrently, increased regulatory focus on reducing embodied carbon, including the emergence of standards and the improvement of tracking and reporting of materials through the supply chain, will be required to accelerate the demand for such alternatives. We will continue to work with our clients across the value chain to support decarbonisation efforts, while monitoring the development of enabling technology and supportive regulation on embodied carbon which we will look to including into our Real Estate sector target at an appropriate time.

In addition, we have observed that data coverage for the sector is still lacking. Due to the urgency of climate change and the significant contribution of the Real Estate sector to global emissions, we have chosen to set a target now in the absence of robust data. As data coverage and quality improve, we will be able to increase the accuracy of our baseline and ongoing emissions for this sector, which is likely to result in fluctuations in our progress towards Net Zero. Meanwhile, we have mitigated the impact of imperfect data through our baselining methodology which is granular and built bottom-up at the building asset level where possible, as well as our target setting approach which is anchored on the pace of decarbonisation specified by our reference scenario.

“ CIMB's bold move in setting climate targets for the real estate sector positions it as a leader in Malaysia's journey to Net Zero. While external factors such as grid decarbonisation, technology, and market readiness are influential, it is essential for all stakeholders in the real estate sector to contribute and maintain continuous progress.

A commitment to transparency is central to building accountability and trust, which help us stay on course in an ever-changing environment. ”

Ong Pang Yen

Executive Director of Chairman's Office, Sunway Group

10 Taking Action

Our targets published in this Whitepaper mark a significant milestone in our journey towards decarbonisation. They have equipped us with a concrete ambition for 2030, and the strategies required to take us there in six sectors that are key pillars of the ASEAN economy. Achieving our 2030 Targets will put us on the path towards Net Zero by 2050. Going forward, we will be focused on four key priorities:

Supporting our clients through a just transition compatible with inclusive development

This is a core tenet of our ambition. We acknowledge the challenges in striving for a just transition compatible with economic growth and positive social outcomes. In setting our course to decarbonisation, we will embark on this journey together with our clients, engaging with them and providing financial and non-financial support to enable and accelerate their own decarbonisation efforts, whilst helping to mitigate potential impacts to vulnerable individuals and communities, and enabling them to achieve a just transition.

This journey is relevant to a broad swathe of our clients. Whether they are large corporates or SMEs, whether they operate in carbon-intensive industries or are involved in scaling up the new technologies required in a Net Zero future, we will be a partner to them by continuing to innovate our financing solutions and to increase our engagement to serve as catalysts for their transition. In doing this, we will be sensitive to the differing needs of our clients. Many are making progress of their own which we will continue to wholeheartedly support, while others are beginning their transition journeys and may benefit from us as an advisor as well as a financier. We will customise our engagement to our clients, broadening our offering as the Net Zero transition continues and upskilling our people to maximise the quality of our engagement with our clients on climate and sustainability topics. Ultimately, we will be able to realise our own decarbonisation ambition when we have impactfully helped our clients to realise theirs.

Driving change in partnership with broader ecosystems in the real economy

Decarbonisation needs to happen in the real economy. Beyond our role to leverage our balance sheet to spur innovation and wide-spread adoption of green technologies and practices, we intend to actively engage with the various actors and stakeholders in the broader real economy ecosystems to drive change. Our target towards Net Zero for the Palm Oil sector, a global first, is our commitment to enabling the continued transformation of an important sector, to meet growing demand in a sustainable way. We will work in partnership with the many like-minded actors in the Palm Oil industry including regulators, standard setters, industry bodies and NGOs to help deliver on it. Likewise, in the other carbon-intensive sectors where we have set targets, we will play our part and contribute to creating and scaling partnerships to deliver a just transition for the region.

Beyond the six sectors for which we have set formal targets, we will continue to play a leading role in driving the real economy to embrace sustainability and take action towards shaping a more responsible society and a Net Zero planet. We will continue to grow our advocacy, for instance through the Cooler Earth Sustainability Summit which has been running since 2019, and looking for opportunities to add our influence to other local and international efforts.

Reviewing our progress and ensuring our targets stay relevant

We will measure our financed emissions on an annual basis, analyse our performance in our six priority sectors against our 2030 Net Zero sector targets, and disclose our progress in our annual sustainability disclosures. To ensure we are able to communicate a clear message and consistent strategy to our clients and stakeholders, we will seek to maintain the stability of our 2030 Net Zero

sector targets. As we approach 2030, we plan to update our targets for the next five years to 2035, and continuing to do so every five years as we chart our course to Net Zero by 2050, in line with our commitment as a member of the NZBA. In addition to this minimum frequency for refreshing our Net Zero sector targets, we will monitor developments in the six priority sectors and ensure that any significant updates to climate science are incorporated into our approach. We will also ensure that our policies and targets remain relevant and suitably ambitious by calibrating them against the broader regulatory and technological environment. For example, should there be a sharp acceleration of supportive regulations towards low carbon solutions in the markets we operate in, we will look to ratchet up our policies accordingly.

We will continue to monitor our suite of targets in the coming years to ensure that they stay relevant and fit for the purpose of ensuring that our strategy is focused on maximising our net positive impact on people and planet. As part of this, we may decide to set new targets in future. For instance, if another high-emissions sector becomes material to the Bank we will look to set a Net Zero target for that sector. Conversely, we may retire current targets if they cease to be useful in driving meaningful, strategic change.

Continuing to develop and embed organisational capabilities

Setting our Net Zero targets is merely the first step in our journey towards being a Net Zero bank. The next step for us is to develop our internal capabilities to integrate and embed sustainability into everything that we do. Our strategy, which we intend to implement progressively over the next two to three years, revolves around the following pillars:



Implement guardrails to achieve climate objectives:

We aim to align our processes and incentives to direct capital towards the transition, and manage climate risk. This includes strengthening our governance structures and financing policies to integrate sustainability into what we do, tracking our annual targets and aligning performance management to ensure our people are incentivised along the journey to collectively achieve our climate goals.



Integrate climate into credit underwriting:

We plan to enhance our credit underwriting processes to ensure sustainability risks are appropriately captured, escalated and mitigated in our financing. This includes the introduction of risk assessments in credit underwriting to measure the ESG risks of clients we onboard, assess the credibility of their transition plans and determine how they may impact our ability to achieve our Net Zero targets.



Capture new climate business opportunities:

The Net Zero transition in ASEAN presents a cumulative USD 1 trillion market opportunity by 2030*. As a bank, we have the impetus to ensure we direct capital flows into the green economy and capture these green financing opportunities. To do so, we need to equip our people with the right knowledge and tools to engage with their clients and propose sustainable finance solutions to finance our clients through the transition.

*EDB Singapore (2022) Southeast Asia's Green Economy 2022 Report



Develop infrastructure for climate data:

Climate data is a necessary enabler in our climate journey. At minimum, this includes emissions reporting from our clients, information about their transition plans, and reference scenario data. Given its nascency, we are currently in the preliminary stages of collecting climate data, often relying on manual efforts. Moving forward, we endeavour to do this in a streamlined and automated manner that will enable our people to access timely and accurate climate information about our portfolio and use these insights to make informed decisions.

A Net Zero future has the potential to deliver inclusive growth and resilience alongside its positive impacts on climate. We remain steadfast in driving the sustainability agenda across the ASEAN region, and have taken an important step forward with our targets towards Net Zero. We invite our clients, investors and the broader community to work with us towards securing a sustainable future for the region.

“ CIMB’s adoption of bold climate targets for multiple sectors shows strong leadership and innovation. We look forward to seeing stakeholders work with CIMB to make these targets a reality, drive down emissions in the real economy, and accelerate growth in clean development and related jobs. ”

Benjamin McCarron

Founder and Managing Director, Asia Research and Engagement (ARE)

11 Glossary

Abbreviation	Definition
AFOLU	Agriculture, forestry and other land use
ASEAN	Association of Southeast Asian Nations
BNM	Bank Negara Malaysia
CAGR	Compound Annual Growth Rate
CCS	Carbon capture and storage
CCUS	Carbon capture, utilisation and storage
CFPP	Coal-fired power plants
CMH	Carbon Management Hierarchy
CMM	Coal mine methane
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
COP26	26th Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC)
CPKO	Crude palm kernel oil
CPO	Crude palm oil
CRREM	Carbon Risk Real Estate Monitor
CSPO	Certified sustainable palm oil
DCM	Debt capital market
ECM	Equity capital market
EUDR	European Union Regulation on Deforestation-free Products
FFB	Fresh fruit bunches
FLNG	Floating liquefied natural gas
FMCG	Fast moving consumer goods
FPIC	Free, prior and informed consent
FPSO	Floating production storage and offloading
GAKI	Indonesian Palm Oil Association
GDP	Gross domestic product
GHG	Greenhouse gases
GSSIIPS	Green, Social, Sustainable Impact Products and Services
GVC	Greening Value Chain Programme, established under the Joint Committee on Climate Change
HCS	High carbon stock
HCV	High conservation value
IAM	Integrated Assessment Model
IEA	International Energy Agency
IEA APS	International Energy Agency's Announced Pledges Scenario
IEA NZE	International Energy Agency's Net-Zero Emissions by 2050 Scenario
IEEFA	Institute for Energy Economics and Financial Analysis
IFRS S2	International Financial Reporting Standards Climate-related Disclosures (S2)
ILO	International Labour Organisation
IOC	International oil companies
IPCC	Intergovernmental Panel on Climate Change
ISCC	International Sustainability and Carbon Certification
ISO	International Organization for Standardization
ISPO	Indonesia Sustainable Palm Oil certification scheme
LCA	Life-cycle assessment
LCOE	Levelised cost of electricity

Abbreviation	Definition
LEED	Leadership in Energy and Environmental Design
LUC	Land use change
MAS	Monetary Authority of Singapore
MEPS	Minimum energy performance standards
MSME	Micro, Small & Medium-sized Enterprises
MPOB	Malaysian Palm Oil Board
MSPO	Malaysian Sustainable Palm Oil certification scheme
MYR MM	Million Malaysian Ringgit
NETR	National Energy Transition Roadmap
NDC	Nationally Determined Contribution
NGO	Non-Governmental Organisation
NDPE	No Deforestation, No Peat, No Exploitation
NGFS	Network for Greening the Financial System
NOC	National oil companies
NZBA	Net-Zero Banking Alliance
NZE 2050	Net Zero Emissions by 2050
PCAF	The Partnership for Carbon Accounting Financials
PK	Palm kernel
POME	Palm oil mill effluent
PPA	Power purchase agreement
R&D	Research & development
RECs	Renewable Energy Certificates
REIT	Real Estate Investment Trust
RSPO	The Roundtable on Sustainable Palm Oil
SBTi	Science-Based Targets initiative
SBTi FLAG	Science-Based Targets initiative Forest, Land and Agriculture pathways
SDA	Sectoral decarbonisation approach
SDS	Sustainable Development Scenario
SME	Small & medium enterprises
Solar PV	Solar Photovoltaic
T&D	Transmission and distribution
TCFD	Taskforce on Climate-related Financial Disclosures
WBA	World Benchmarking Alliance

12 Appendix

Change log for Version 2.0 of the whitepaper (released in Jul 2024)

Section	Description	Changes made
2	Summary of CIMB's 2030 Targets <i>Key Design Principles of our Target Setting towards Net Zero</i>	Supplemented details on the Oil and Gas and Real Estate targets.
3	Our Approach to Target-Setting towards Net Zero <i>Our sector prioritisation approach</i> <i>Key design decisions in our approach</i>	
4	Thermal Coal Mining Sector	Renamed section for further clarity. Rearranged the section based on chronological order of our commitment.
5	Cement Sector	Rearranged the section based on chronological order of our commitment.
6	Palm Oil Sector	
7	Power Sector	
8	Oil and Gas Sector	Included new section on our Oil and Gas target.
9	Real Estate Sector	Included new section on our Real Estate target.
10	Taking Action	Supplemented with details on our Net Zero operationalisation strategy to embed sustainability in the organisation.